GOVERNANCE MATTERS
RELATING TO THE PROVISION OF
SAFE DRINKING WATER IN ONTARIO

INTENDED SUBMISSIONS
BEFORE
MR. JUSTICE DENNIS O'CONNOR, COMMISSIONER
RESPECTING
PART II OF THE WALKERTON INQUIRY

PREPARED ON BEHALF OF THE
ONTARIO WATER WORKS ASSOCIATION
AND THE
ONTARIO MUNICIPAL WATER ASSOCIATION

JUNE 2001

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I. INTRODUCTION

In June 2000, the Ontario Government appointed Mr. Justice Dennis R. O'Connor, of the Ontario Court of Appeal, as a Commissioner under the *Public Inquiries Act*, to investigate the circumstances surrounding deaths and illness experienced in Walkerton, Ontario from the consumption of drinking water contaminated by E. Coli bacteria. Part I of the Inquiry requires the Commission to examine the particular circumstances surrounding the causes of the events at Walkerton as well as the effect of government policies, procedures, and practices on these events. Part II of the Inquiry requires the Commission to make recommendations to ensure the future safety of drinking water in the province.

These submissions on governance matters are filed on behalf of the Ontario Water Works Association ("OWWA") and the Ontario Municipal Water Association ("OMWA") both of whom were granted Party status in Part II of the Inquiry in September 2000.

The OWWA is a non-profit scientific and educational association made up of over 1100 individuals, businesses, consulting firms, and water utilities dedicated to the delivery of safe, clean drinking water in Ontario. The membership of the OWWA includes approximately 70 large and small water utilities directly responsible for the provision of safe drinking water in the province. The organization is a section of the American Water Works Association ("AWWA"), a non-profit technical organization founded in 1881.

The OMWA, founded in 1967, representing over 160 water utilities in Ontario, has had an historic focus on policy, legislative, and regulatory matters in conjunction with the delivery of safe drinking water in the province. Additional background material on both organizations may be found in the separate applications filed with the Commission on behalf of both groups in August 2000.

The submissions contained in this document relate primarily to Issues/Topics 2 and 4 identified by the Commission in its Study Lists of August and December 2000.[1]

These submissions are one of approximately ten that have been or will be filed with the Commission by OWWA/OMWA. The complete list of areas where OWWA/OMWA will be filing reports (and recommendations) relate to the following original Commission Issue/Topics (corresponding now to the following public hearings):

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[1] The Walkerton Inquiry. Part 2: Study List. Draft for Discussion (August 17, 2000) as amended (December 4, 2000). Issue # 2 - History of Drinking Water Management in Ontario (Institutions, laws, regulations) and Issue # 4 - Ontario Machinery of Government (Do the laws and institutions of Ontario conduce to the primacy of clean water).

Issue #	Public Hearing #
❖ 2 - History of Drinking Water Management	2&3 - Provincial Government: Functions & Resources
❖ 3 - History of Drinking Water Pollution Outbreaks	6 - Standards; Technology; Small Systems
❖ 4 - Machinery of Government	1 - Guiding Principles; Overall Government Roles
❖ 5 - Drinking Water Standards	6 -
❖ 6 - Water Pollution; Sources of Contamination	5 - Regulatory & Technical Issues for Contaminant Sources
❖ 7 - Measurement of Source & Finished Water	6 -
❖ 8 - Production & Distribution of Drinking Water	6 -
❖ 10 - Training & Accreditation	7&8 - Management of Water Providers
❖ 11 - Management & Organizational Behaviour	7&8 -
❖ 12 - Communications	1-
❖ 14 - Infrastructure Financing	7&8 -

Accordingly, the OWWA/OMWA governance submissions and recommendations contained in this document should be viewed together with, and as complementary/supplementary to, our other reports to the Commission.

The OWWA/OMWA governance submissions are organized to address the following matters. Part II of these submissions identify the particular governance interests of the OWWA/OMWA in Part II of the Inquiry. Part III identifies the constitutional responsibility of governments in Canada for the provision of safe drinking water, with particular emphasis on the federal spending power as authority for federal government involvement in support of provincial drinking water protection initiatives. Part IV identifies the primary components of safe drinking water law in the United States, where the OWWA, through its affiliation with the AWWA, has had long and extensive experience. Part V examines particular machinery of government issues that were identified by Commission consultants and that OWWA/OMWA supports. Part VI summarizes the findings, conclusions, and recommendations of the OWWA/OMWA on governance matters.

II. GOVERNANCE INTERESTS OF THE OWWA/OMWA IN PART II OF THE INQUIRY

The governance interests of OWWA/OMWA in Part II of the Inquiry include ensuring that any proposed legal or regulatory regime coming out of the Part II process, encourages the identification and implementation of best management practices by water utilities in the province.

The interests of OWWA/OMWA in governance matters in Part II of the Inquiry arise from the mandate, purposes, and objects of the two organizations. The purposes of the OWWA include (1) promoting public health, safety, and welfare through the improvement of the quality and quantity of water delivered to the public; and (2) developing and furthering the understanding of water supply and delivery systems through:

- ❖ Advancement of knowledge of the design, construction, operation, water treatment, and management of water utilities

and development of standards for procedures, equipment and materials used by public water supply systems;

- Advancement of knowledge of the problems involved in the development of resources, production, and distribution of safe and adequate water supplies;

- Education of the public on the problems of water supply and promotion of co-operation between consumers and suppliers in solving these problems;

- Research to determine the causes of problems of providing safe and adequate supply and proposing solutions to such problems in an effort to improve the quality and quantity of the water supply provided to the public.

The objects of the OWWA as expressed in its 1996 by-laws include:

- To promote the protection of public health and the environment, in the interest of providing safe drinking water to the consuming public, through the efficient management and operation of water supply facilities and resources;

- To further the dissemination of information and the advancement of knowledge in the area of design, construction, operation and management of waterworks facilities;

- To promote and encourage experimentation and research, and the publication of the results thereof in the areas of water distribution, water purification, conservation and development of water resources, and water quality management;

- To promote and undertake education and training programs for all levels of staff operating water supply systems;

- To promote and undertake programs and measures to educate the public on matters such as water quality, conservation, protection of water supply sources, and related matters;

- To liaise and work with government and other agencies to assist in the development of legislation and guidelines on drinking water.

The interests of OWWA in governance matters in Part II of the Inquiry also arise from its long history as well as its stated vision, guiding principles, mission, and goals.

As noted above, the OWWA is a section of the American Water Works Association ("AWWA"), a non-profit technical organization that was founded in 1881. The Canadian Section of the AWWA was founded in 1916 and held its first annual conference in 1920. In 1970, the Canadian Section was dissolved and new sections were established in Atlantic Canada, Ontario, and Western Canada. Since 1971 the OWWA - in conjunction with the OMWA - has held an annual conference on drinking water issues.

The OWWA currently operates under a Five-Year Strategic Plan. The Strategic Plan vision is to ensure that the OWWA is a leading force in the province dedicated to safe drinking water.

The guiding principles under the Strategic Plan include:

- Safe and Sufficient Water for the Ontario Public. In this regard the OWWA is committed to safe-guarding public health by adhering to the principle that the public has an absolute right to safe drinking water that is sufficient to meet community needs.

- Consumer Confidence and Satisfaction. The OWWA also is committed to achieving consumer confidence and satisfaction through on-going public involvement in planning, policy development, regulatory, and quality issues regarding drinking water.

- Total Water Stewardship. The OWWA is further dedicated to helping to assure that water, as a vital resource and basic element of life, is managed for the greater good of the public and the environment, and that all segments of society have a voice in the process.

The OWWA's mission as stated under the Strategic Plan is to (1) promote public health and welfare in the provision of drinking water of unquestionable quality and sufficient quantity; and (2) be proactive and effective in advancing technology, science, management, and government policies relative to the stewardship of water.

Finally, the goals of the OWWA under the Strategic Plan include:

- Promoting consumer confidence regarding public water supplies.

- Being recognized as an authority on drinking water issues in the province.

- Being able to influence regulatory policy on drinking water issues.

- Ensuring safe and sufficient water for the public by taking a leadership role in water stewardship.

- Supporting educational programs, including technology transfer, training and certification programs, to ensure water supply systems are managed and operated by qualified people.

Similarly, the interests of OMWA in governance matters in Part II of the Inquiry also are reflected in the organization's long history as well as its objectives as set out in its Constitution. These objectives include:

- To act as the voice of Ontario's municipally-owned water supply authorities and their customers.

- To promote the development of sound policy and the assurance of high standards of treatment, infrastructure, operations and general management for safe, reliable, high quality municipal water supplies.

- To work with all levels of government, their agencies, and other associations to maintain safe, adequate and sustainable supply sources, control of pollution, and efficient use of potable public water supplies on a province-wide basis.

- To represent municipally-owned water supply authorities in Ontario and their customers, on all legislative reviews and regulatory matters pertaining to municipal water supplies.

- To ensure adequate funding through charges and user rates dedicated solely to water systems, and to seek a uniform policy for rates and full-cost accounting.

- To encourage a free exchange of information between all parties involved with drinking water in the province.

- To co-operate with OWWA on technical or other matters of mutual interest.

- To promote the dissemination of information for public education on municipal water supply systems.

In summary, the primary interest of OWWA/OMWA in Part II of the Inquiry is to provide the Commission with evidence on best management practices and

policies that should be employed to protect the drinking water system based on the collective experience and expertise of OWWA/OMWA membership. The Commission's identification of governance issues as key concerns for Part II of the Inquiry has implications for the application of best management practices by water utilities in Ontario including the possible introduction of new laws respecting protection of drinking water. Accordingly, the governance interests of OWWA/OMWA in Part II of the Inquiry include ensuring that any proposed legal or regulatory regime coming out of the Part II process, encourages the identification and implementation of best management practices by water utilities in the province.

III. CONSTITUTIONAL RESPONSIBILITY FOR SAFE DRINKING WATER: OVERALL ROLES OF GOVERNMENT

The issue of jurisdictional authority to act with respect to protection of drinking water is a crucial issue in the view of OWWA/OMWA and the views expressed here have previously been communicated to the Commission (See Appendix 1). The members of OWWA/OMWA carry major responsibilities for the provision of safe drinking water in the province. In the view of these organizations, the jurisdictional issue will require careful consideration as government moves forward as part of the Inquiry process and thereafter.

A background paper prepared for Part II of the Inquiry explored the scope of provincial and federal jurisdiction over drinking water under the *Constitution Act 1867*.[2] OWWA/OMWA agree with the assessment in the paper that the provinces generally have broad jurisdiction over drinking water regulation based on a number of heads of power. These provincial heads of power include property and civil rights, matters of a merely local or private nature, municipal institutions in the province, and related heads of power under section 92 of the Constitution. OWWA/OMWA agree further that potential federal jurisdiction under both functional and conceptual heads of power under section 91 of the Constitution could conflict with provincial legislative drinking water initiatives.

However, this Commission paper also reviewed examples of where federal legislative initiatives appear to provide opportunities for cooperative federal-provincial action with respect to water management. The paper also mentioned but did not elaborate further on a potentially fruitful line of inquiry respecting the federal spending power, section 91(1A) of the Constitution. The paper did note that Professor Lederman has suggested that the federal spending power would enable the federal government to play a prominent role in pollution abatement through the financing of sewage systems and pollution research and

[2] Ronald Foerster, *Constitutional Jurisdiction Over Safety of Drinking Water* (The Walkerton Inquiry: Draft for Discussion, 2001)

through making corporate loans conditional on the adoption of anti-pollution measures.[3]

In the view of OWWA/OMWA, the federal spending power holds great potential to assist in financing the expenditures that may be necessary in the drinking water field in future in Ontario (and other provinces). Areas that likely will require funds include the development and implementation of enforceable standards, infrastructure development and renewal, source water protection, training and certification, research and related matters. Moreover, the federal spending power has been relied on by Parliament to impose national standards for hospital insurance, medical care, and student housing programs as a condition of federal contribution to these provincial regimes. Each of these federal spending power initiatives in social and health-related areas has been upheld by the courts.[4]

Indeed, leading authorities, such as Professor Hogg, have suggested that under the federal spending power, Parliament may spend or lend funds to any government, institution, or individual it wishes, for any purpose it chooses, and may attach to any grant or loan any condition it chooses, including conditions it could not directly legislate.[5] The courts have been prepared to accept the exercise of this power by Parliament because withholding federal monies to fund a matter within provincial jurisdiction does not result in regulation of that matter by the federal government.[6]

Therefore, under the federal spending power a federal department or agency with the requisite statutory enabling authority could do a number of things in the drinking water field. In particular, it could condition loans or grants to Ontario (and other provinces), or other entities respecting such matters as standards, infrastructure development and renewal, source water protection, training and certification, and related areas of concern.

However, for reasons that OWWA/OMWA will make clear in various submissions and reports to the Commission in the coming months, OWWA/OMWA support a more judicious use of the federal spending power. In particular, OWWA/OMWA are of the view that to the maximum extent feasible municipal water systems should be self-financed, based on user fees and charges, and that the rates charged should be based on a system of full-cost accounting. Accordingly, OWWA/OMWA believe that if the federal spending power were to be invoked to justify federal legislation in the drinking water field,

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[3] *Ibid.* at 41.

[4] See *e.g. Re Canada Assistance Plan*, [1991] 2 S.C.R. 525; *Eldridge v. British Columbia*, [1997] 3 S.C.R. 624 (dictum upholding *Canada Health Act*); *Central Mortgage and Housing Corporation v. Co-op College Residences* (1975), 13 O.R. (2d) 394 (Ont. C.A.) (upholding federal loans for student housing).

[5] Peter W. Hogg, *Constitutional Law of Canada*, looseleaf, Vol. 1 (Toronto: Carswell, 1998) at 6-17).

[6] *Re Canada Assistance Plan*, *supra* note 1 at 567.

that any such federal law focus primarily on the provision of loans as opposed to grants, particularly with respect to drinking water infrastructure development and renewal.

OWWA/OMWA believe that this type of cooperative federal initiative in conjunction with necessary provincial law reforms will be essential if drinking water quality is to be maintained and enhanced in the coming years in Ontario.

IV. PRIMARY COMPONENTS OF SAFE DRINKING WATER LAW: THE EXPERIENCE IN THE UNITED STATES

During the course of Part II of the Inquiry, Commission sponsored studies as well as the reports of several of the Parties, have referred to the *Safe Drinking Water Act* of the United States ("USSDWA") as a benchmark against which to consider possible new drinking water legislation in Ontario. The OWWA, as a section of the AWWA, is very familiar with the operation of the USSDWA. Indeed, AWWA statements of policy are predicated on compliance with federal and state law and regulatory requirements imposed by the United States Environmental Protection Agency ("USEPA") and the states pursuant to this federal law and its various state counterparts. Accordingly, it is appropriate for the Commission to hear from water utilities and water industry professionals on this issue. These entities are responsible for complying with this regime in the United States, are responsible for complying with the current regime in Ontario, and would be responsible for complying with the requirements of any new regime imposed in the province in future.

The USSDWA has been amended many times since its initial passage in 1974. However, the following review of the USSDWA focuses on the initial requirements of the law as enacted in 1974, and what are regarded as the primary sets of amendments made to the law in 1986 and 1996.

A. The 1974 Safe Drinking Water Act

The purpose of the 1974 USSDWA was to (1) ensure that drinking water supplied by public water supply systems would be of high quality and (2) prevent health problems that might be caused by contamination from synthetic organic chemicals. The 1974 Act did not apply to people served by private water suppliers.

The primary focus of the 1974 Act was on surface water. Groundwater was given much less emphasis in the 1974 Act because of assumptions at the time that groundwater was comparatively immune from contamination - though one aspect of the 1974 Act did focus on groundwater as summarized below.

The 1974 Act required the USEPA to set mandatory maximum contaminant levels ("MCLs") for pollutants in public drinking water supplies that USEPA determined may be hazardous to human health.[7] The states were responsible for enforcement of the national standards.

The USEPA also was given the power on its own initiative or pursuant to a petition from a state to determine that an aquifer constituted the sole source of drinking water for a population and to approve state plans that would afford greater protection to these areas (hereinafter "sole source aquifer areas" or "SSAAs"). Once SSAAs were designated, no projects funded with federal monies would be allowed in these areas if the projects would contaminate the aquifer and cause a significant public health hazard.

Generally, the 1974 Act has been regarded as not effective in achieving the goal of ensuring safe public drinking water in the United States because:

1. USEPA failed to set MCLs for very many major drinking water contaminants[8];

2. For a variety of reasons - technical, financial, etc. - some public water systems experienced difficulty in complying with the standards that had been set; and

3. The SSAA provision was not effective in protecting groundwater because of limits on the extent to which USEPA could review federal, state, and local projects; use of a hazard rather than a non-degradation standard; and the fact that the petition process for SSAA designation was optional at the state level.

B. The 1986 Amendments

The 1986 amendments to the USSDWA focused on two primary issues: (1) establishment of MCLs; and (2) groundwater protection. Each issue is reviewed briefly.

1. Establishment of Maximum Contaminant Limits

[7] Pursuant to the statutory authority of the USSDWA, legally enforceable standards for drinking water have been established not only for organic chemicals but also for microorganisms, inorganic chemicals, radionuclides, and disinfectants and disinfectant byproducts. The bulk of the nationally enforceable standards, however, have been developed and promulgated for organic chemicals (over 50 of the approximately 90 standards now in force).

[8] Approximately 20 MCLs were in place at the time of the coming into force of the 1986 amendments.

Under the 1986 amendments, USEPA was required to set MCLs for certain drinking water contaminants. The agency was no longer granted broad discretion to determine which contaminants must have standards. The 1986 amendments required that standards be established for approximately 80 specifically identified contaminants by certain dates and a further 25 contaminants every three years.

USEPA also was given greater authority to order that public drinking water systems comply with these national standards.

The states were encouraged to ensure compliance with MCLs by the provision of federal funding for state drinking water protection plans. States were eligible to receive federal funding for development of such plans as long as the state plans met the national MCL standards.

2. Groundwater Protection

The 1986 amendments required (1) designation of critical aquifer protection areas ("CAPAs"), and (2) wellhead protection.

a. Critical Aquifer Protection Areas

The purpose of the CAPA program was to increase the protection afforded critical groundwater areas. CAPAs could be designated within sole source aquifer areas if certain criteria were met. These criteria included:

1. The critical area must provide drinking water for a minimum of 75 per cent of the people in the area served by the aquifer.

2. The economic replaceability of the water source (i.e. the more expensive to replace the greater the likelihood of designation).

3. Whether contamination of the area would pose substantial human health hazards.

4. Whether contaminants could flow into unique or sensitive ecological areas.

5. Whether contamination of the area could curtail leisure or commercial activities.

In order to apply for CAPA designation and to receive federal grant monies to carry out the CAPA program, the petitioner must have jurisdictional control over the proposed CAPA and be capable of implementing the program.

b. Wellhead Protection

The purpose of the wellhead protection program was to protect areas surrounding public water supply wells. The 1986 amendments recognized that contamination anywhere in the area around a wellhead could adversely affect the public water supply and public health. Under this program, federal funding was authorized for state wellhead protection programs under criteria that included the following:

1. The state must delineate the roles and responsibilities of state and local agencies and public water systems in creating and enforcing wellhead protection.

2. Wellhead protection areas must be identified.

3. Potential contaminant sources within a proposed area must be identified that may harm health.

4. The state plan must set out how the state proposes to prevent/manage well contamination including source control, training, and technical assistance.

5. The state must describe alternative plans for providing substitute supplies of drinking water if a well or well field becomes contaminated.

Overall the 1986 amendments provided a significantly greater focus on protection of groundwater than the 1974 version of the Act. However, there were still perceived difficulties with the law. For example, the only consequence of non-compliance or inadequate compliance with the law was that the state would not receive federal grants. There was no requirement for states to re-submit their plans if federal granting approval was denied. The 1986 amendments also did not authorize the federal government to implement a federal plan as a substitute. (The likely reason was concern about federal encroachment on constitutional powers traditionally exercised by the states over land use and groundwater). Thus, under the 1986 amendments, the states were given the primary responsibility for developing, implementing, and enforcing these programs. USEPA's main role was to (1) set minimum standards, (2) approve programs that met the above criteria, and (3) provide varying amounts of federal funds to qualifying state programs.

3. The Strategies Employed by the States to Meet the 1986 Amendments

Generally, states have employed a variety of strategies to meet the 1986 amendments:

1. *Determining the level of groundwater protection*.

- non-degradation (keep present groundwater quality)
- limited degradation (assume degradation will occur but set limits through standards and contaminant levels)
- differential protection (classify groundwater and set different policies and goals for each area).

2. *General or targeted regulation*.

- statewide regulations.
- specific source regulations.
- focus on most harmful contaminators.

3. *Form of regulation*.

- design standards.
- monitoring methods.
- financial grants.
- sanctions.

4. *Regulatory technique.*

- mandatory requirements in statute or regulations, vs.
- administrative discretion.

5. *Funding source.*

- taxes.
- general revenues.
- fees.

6. *Level of government responsible for implementation and enforcement.*

- local - greatest interest and knowledge of local conditions, but least jurisdiction and fewest resources to do job
- state - greatest jurisdictional authority to act
- federal - source of money and technical knowledge.

4. Concerns with the 1986 Amendments

Among the criticisms that have been leveled at the 1986 amendments are the following:

1. The primary focus still was on public drinking water supplies. Accordingly, the Act still could not be used to protect private supplies.[9]

2. The requirement to produce MCLs for specified contaminants under a targeted schedule limited USEPA's flexibility and allowed little risk prioritization by the agency.

3. The CAPA and SSAA programs were still voluntary. The only thing states are required to do under the 1986 amendments is to submit a wellhead protection plan and ensure that levels of contaminants in public drinking water meet national standards.

4. The restrictions on projects in SSAAs apply only to federally funded activities. Harmful activities that do not receive federal funds may take place in the SSAA. (This really is a defect of the 1974 Act that was not corrected by the 1986 amendments).

C. The 1996 Amendments

The 1996 amendments focus on a number of issues including the following: (1) provisions for a state revolving loan fund; (2) contaminant selection: (3) arsenic; (4) watershed protection partnerships; (5) operator training and certification; (6) consumer and public information; and (7) capacity development. Each issue is reviewed briefly.

1. State Revolving Loan Fund

The purpose of the fund is to loan money to public water systems (including "small systems" servicing less than 10,000 people) to develop and maintain the drinking water infrastructure and to ensure that such systems comply with drinking water standards.

a. Eligibility

Four categories of system are eligible for financial assistance under the 1996 amendments:

1. Community water systems.
2. Publicly owned water systems.
3. Systems not owned by federal agencies.
4. Non-profit-non-community water systems.

[9] Systems serving less than 25 individuals are not subject to the Act.

b. Land Acquisition

Funds also are available under the program for land acquisition to protect source water from contamination. To be eligible for funding the land acquisition must occur through a voluntary agreement between the vendor and purchaser (not through what we would call in Canada expropriation).

2. Contaminant Selection

The 1996 amendments revised the USEPA obligations respecting the development of contaminant standards to better take into account risks to the public and costs of control. The requirement (from the 1986 amendments) that USEPA establish standards for 25 new contaminants every three years was eliminated.

The 1996 amendments give USEPA authority to promulgate regulations for contaminants that are actually present, or likely to be present, in drinking water and found to pose a risk to public health. In particular, USEPA must (1) publish a MCL goal and (2) promulgate a national primary drinking water regulation for a contaminant if the agency determines that:

1. The contaminant may have an adverse effect on the health of persons;

2. The contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and

3. In the sole judgment of USEPA, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems.

Once USEPA identifies a contaminant for review, the agency must assess both the risks and costs of regulation.

In assessing risks, Agency action must be based on (1) "the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices" and (2) accepted methods of data collection. In support of a proposed regulation for a contaminant, the USEPA must specify for each contaminant:

1. Each population addressed by any estimate of public health effects,

2. The expected risk or central estimate of risk for the specific populations,

3. Each appropriate upper-bound or lower-bound estimate of risk,

4. Each significant uncertainty identified in the process of the assessment of public health effects and studies that would assist in resolving the uncertainty, and

5. Peer-reviewed studies known to USEPA that support, are directly relevant to, or fail to support any estimate of public health effects and the methodology used to reconcile inconsistencies in the scientific data.

In assessing the costs of a regulation, USEPA must conduct a cost-benefit analysis for each national primary drinking water regulation for a contaminant (i.e. each MCL), and for any regulation proposing a treatment technique.

3. Arsenic

The 1996 amendments specifically require USEPA to promulgate a national primary standard for arsenic by early 2001. (The Clinton Administration had set a new standard of 10 parts per billion - down from 50 parts per billion. The Bush Administration recently announced an intention to withdraw the change pending further study).

4. Source Water Protection

The 1996 amendments require each state to undertake a source water assessment program. The purpose of the program is to (1) delineate source water protection areas based on hydrogeological information considered by the state to be reasonably available and appropriate, and (2) identify contaminants the state has determined may present a threat to public health, the origins of such contaminants, and the susceptibility of public water systems to such contaminants. Once a state has identified watershed protection areas, it may establish a program where owners and operators of community water systems submit to the state a source water quality protection partnership petition requesting state assistance in the local development of a voluntary, incentive-based partnership. The purpose of the partnership program is to (1) reduce levels of contaminants in drinking water, (2) provide financial and technical assistance, (3) make recommendations for the protection of source waters, and (4) ensure provision of safe drinking water that complies with national drinking water regulations with respect to contaminants addressed in the petition.

Overall, the benefits of the 1996 amendments are seen to be implementation at the state level of long-term land use planning controls to protect watersheds.

5. Operator Training and Certification

The 1996 amendments require states to have in place a program of public water system operator training and certification that meets the requirements of guidelines published by the USEPA, or that the federal agency agrees is substantially equivalent to such guidelines. The amendments allow states to use a portion of the state revolving loan fund referred to above to cover the costs of carrying out state training and certification programs. The amendments also require USEPA to withhold a percentage of revolving loan funds from states that do not meet the federal agency's requirements for operator training and certification.

6. Consumer and Public Information

The 1996 amendments also required the USEPA to issue regulations requiring each community water system to provide (by mail or by publishing in a newspaper where the system is a "small system") an annual "consumer confidence report" to its customers regarding the level of contaminants in the drinking water provided by the system. The 1996 amendments set out the minimum contents of consumer confidence reports such as:

1. Water source.

2. Plain English definition of terms.

3. Information on any regulated contaminant found in the water system.

4. Information on regulatory compliance by the system.

5. Information on unregulated contaminants found in the system.

6. Availability of additional information from USEPA.

The 1996 amendments also require that public water systems notify persons served by the system of each violation of a national drinking water standard "that has the potential to have serious adverse effects on human health as a result of short-term exposure" within "24 hours after the occurrence of the violation." States also must report annually to the public and USEPA information respecting other violations of the Act, or regulations.

A variety of other public notice provisions that public water systems or the states must comply with are set out in the amendments. These include reporting to the public directly (or through USEPA) on (1) development of technical, managerial, and financial capacity to meet drinking water standards, and (2) the results of source water assessments.

7. Capacity Development

The 1996 amendments also seek to improve the capacity of public water systems to meet national primary drinking water regulations under the USSDWA. The amendments require that the states ensure, as a condition of obtaining revolving loan funds from the federal government for dispersal to public water systems, that all new and existing systems can demonstrate the technical, managerial, and financial capacity to meet each national primary drinking water regulation. The amendments authorize a series of initiatives to enable states and public water systems to develop and implement appropriate capacity development strategies that will ensure compliance with national primary drinking water regulations. The amendments authorize a variety of technical and financial assistance measures to aid states and public water systems in achieving this goal. These measures include provision of legal and policy guidance information, establishment of small public water systems technology assistance centers, and financial assistance for developing and disseminating information on capacity development techniques.

D. Key Components of Federal Drinking Water Law in the United States: A Summary

From the above brief review, the following elements appear to be some of the key components to federal drinking water law in the United States:

1. Development, implementation, and enforcement of legal standards for certain drinking water contaminants and treatment measures.

2. Groundwater protection consisting of three elements (a) sole source aquifer areas, (b) critical aquifer protection areas (within the sole source aquifers), and (c) wellhead protection.

3. Watershed (source water) protection.

4. A financial regime to sustain the above elements of the program and to develop and maintain the drinking water infrastructure, including operator training and certification, and capacity to meet national regulations.

5. Consumer and public access to information.

E. What Works and What Doesn't: An AWWA Member Perspective

In discussing the application of a regime such as the USSDWA,[10] the OWWA/OMWA believe that it would be helpful to the Commission to consider the direct experience of many active members of the AWWA with this law. Founded in 1881, the AWWA is the world's largest and oldest scientific and educational organization representing drinking water supply professionals. The association's 56,000-plus members are comprised of administrators, utility operators, professional engineers, contractors, manufacturers, scientists, professors and health professionals. The association's membership includes over 4000 utilities that provide over 80 percent of the drinking water in the United States. The AWWA's goals are to provide safe, reliable drinking water to its customers and to ensure that these objectives are achieved through protection of water supply sources and the treatment and distribution of a safe, healthful, and adequate supply of drinking water. AWWA utility members operating in the United States are regulated under the USSDWA.

As set out in Appendix 2 of these submissions, senior active members of AWWA, including Past President Rod Holme, have noted both what works and what does not work quite so well under the USSDWA. (Mr. Holme was in a unique position to observe the implementation of the 1996 amendments to the USSDWA during his 3-year term as an AWWA Officer from 1997 to 2000). The OWWA/OMWA would note that key aspects of the USSDWA that appear to work and not work, according to this review include:

- The new state revolving loan fund for drinking water has provided much needed financial assistance for compliance. However, the level of funding is inadequate by at least an order of magnitude for current regulations with the gap expected to grow as further regulations are introduced and the distribution system continues to age in future.

- Standards for contaminants provide water utilities with clear well-defined treatment targets and the process for setting new standards is clearly spelled out in the law. However, the standards development process itself is slow and cannot respond to emerging contaminants and the regulations do not adequately allow for continuous quality improvement programs.

[10] This discussion regarding the USSDWA has focused on the principles of safe drinking water law and not on the particular characteristics of federal-state law relationships in the United States due to the constitutional regime in place in that country. Accordingly, the discussion here assumes, but is not affected by the fact, that the relationship of federal and state law in the United States does not parallel that of federal-provincial relations in Canada.

- ❖ The new source water assessment programs are providing both utilities and states with a better understanding of potential sources of contamination. However, going beyond the assessments to true source water protection will be challenging particularly because the USSDWA provides limited ability to address upstream sources of contamination and there is inadequate integration of drinking water law (USSDWA) with water quality law (U.S. Clean Water Act).

- ❖ As the USEPA continues to develop standards, water utilities are presented with an ever-increasing list of regulated contaminants and many small systems lack the managerial and technical expertise to accommodate the growing complexity of the regulatory system.

As noted above, Appendix 2 of these submissions set out a fuller analysis respecting the USSDWA regime. However, it is apparent from just the above noted examples that adopting in Ontario a drinking water regime as sophisticated and complex as the one in the United States presents significant legal, financial, technical and related challenges that must be considered carefully and debated publicly in advance of their adoption.

V. MACHINERY OF GOVERNMENT ISSUES: VIEWS OF OWWA/OMWA ARISING FROM SELECTED COMMISSION DOCUMENTS

The Commission sponsored a number of background studies on machinery of government issues including those drafted by Professor Jamie Benidickson on Issue # 2 ("Benidickson"), Mr. Nick D'Ombrain on Issue # 4A ("D'Ombrain") and Professor Andrew Sancton et al on Issue # 4B ("Sancton"). These documents are summarized in Appendices 3-5 respectively at the end of these submissions. There are a number of points raised in each document that OWWA/OMWA rely on to support our findings, conclusions, and recommendations.

A. The Benidickson Report

The Commission requested that Benidickson review, among other things, the history of institutions, laws, and regulations pertaining to the management of drinking water in Ontario. Among the findings and conclusions in the Benidickson report are the following (organized by subject matter - reference to Appendix and point refers to Appendix and point in these submissions). Observations in square brackets are those of OWWA/OMWA - not Benidickson:

- *Standards*:

  - Ontario now has enforceable regulatory standards for drinking water (O. Reg. 459/00) [under a general enabling provision of a water quality statute - *Ontario Water Resources Act*]; United States has promulgated enforceable drinking water standards - since 1974 under a statute - USSDWA - specifically dedicated to drinking water protection - Appendix 3 - point 30 [Observation - Whether Ontario adopts separate safe drinking water legislation or incorporates drinking water protection requirements in regulations under existing water quality law, there must be adequate statutory authority for the drinking water protection regime authorized by the regulations. A potential benefit of incorporating drinking water provisions in a general water quality statute is the opportunity to ensure greater integration of drinking water protection with water quality protection assuming the same ministry is administering both programs].

- *Source water*:

  - Watershed management and cost-sharing arrangements between levels of government with respect to conservation authorities viewed as important Ontario precedent - Appendix 3 - point 10.

  - Recently United States has placed greater emphasis on protection of drinking water sources, especially groundwater under USSDWA - Appendix 3 - point 30 [Observation - there must be better integration between laws dedicated to protection of drinking water and general water quality protection].

- *Financing*:

  - Financing is a key factor affecting development of treatment facilities as well as lack of public (ratepayer) support for necessary expenditures - Appendix 3 - point 12.

  - Late 1950s-early 1960s saw expansion of provincial funding for waterworks and expansion of federal role. Rationale for federal involvement in financing sewage and water works (through loans/grants until 1980) was the need for such facilities and the inability of municipalities to fund same - Appendix 3 - point 18.

  - Concern with capacity of smaller communities to perform adequately as capital requirements and technological standards have increased - Appendix 3 - point 36.

- Municipal reluctance/inability to undertake expenditures on water/sewage lead to significant initiatives at senior levels of government to accelerate installation, extension, refinement of these works - Appendix 3 - point 37.

- *Training and Certification:*

  - Suggestion that training and licensing qualification of water works/sewage operators - even in the 1990s notwithstanding movement toward mandatory certification - not effective in the smallest communities where the "operating staff often consist of a few people with limited education, whose training consists mainly of unguided practical experience" - Appendix 3, point 26 [Observation - Introduction of O. Reg. 435/93 as amended has improved the situation but more remains to be done].

The OWWA/OMWA endorse these findings from the Benidickson report and suggest they support the recommendations the organizations make later in these submissions for improving the legislative regime in Ontario (and federally where necessary) regarding such matters as standards, source water protection, financing, and training and certification. OWWA/OMWA also submit that these findings from the Benidickson report support the recommendations that will be made by their consultants in subsequent reports to the Commission respecting Issues 5 (drinking water standards), 6 (source water protection), 14 (financing), and 10 (training and accreditation).

B. The D'Ombrain Report

The Commission requested that D'Ombrain review, among other things, whether the laws and institutions of Ontario conduce to the primacy of clean water in Ontario. Among the findings and conclusions in the D'Ombrain report are the following (organized by subject matter - reference to Appendix and point refers to Appendix and point in these submissions). Observations in square brackets are those of OWWA/OMWA - not D'Ombrain:

- *General (Constitutional aspects, financing, source water; managerial capacity):*

  - Until mid-1950s, municipalities funded water & sewage development without provincial assistance. This changed because of need to ensure adequate facilities to support urbanization. Between mid-1950s and early 1970s, OWRC took the lead in development, operation, and regulation of such facilities. Reliance on provincial subsidies instead of charging real costs to customers has not served conservation or economic efficiency objectives. Until 1970s, province focused its

drinking water regime controls on public health considerations. Thereafter, health considerations with respect to drinking water were subsumed within wider environmental concerns of MOE. By 1990s, budget restrictions and aging water/sewage infrastructure converged. Federal jurisdiction represents an unrealized potential for a more prominent federal role. Provincial jurisdiction over resources also provides unrealized potential for a watershed approach to drinking water management - Appendix 4 - point 19.

- KPMG study expressed concern that works departments at small municipalities lack management skills to operate water facilities and meet regulatory requirements - Appendix 4 - point 73.

- *Lead ministry, enhanced system and law:*

  - A reliable drinking water system would include a comprehensive drinking water policy; coherent legislation identifying responsibilities, powers, accountabilities, public consultation, and periodic comprehensive review; a lead minister/ministry with broad mandate to protect drinking water sources; adequate resources to meet policy, expert, regulatory & enforcement roles; a sound approach to financing necessary infrastructure entrenched within the policy framework (through either full-cost pricing or by subsidies); appeal mechanisms concerning regulatory decisions and pricing; and a system of regular public reporting, evaluation and audit of lead ministry performance, other ministries and agencies, owners/operators of water/sewage facilities, and testing laboratories - Appendix 4 - point 102.

  - OMWA quoted as stating concerns that a multitude of government agencies dealing with water works matters do so on a piecemeal basis without establishing an overall plan for the industry - Appendix 4 - point 53.

  - Problem of unfocused, non-strategic, piecemeal approach to water recognized since demise of OWRC - Appendix 4 - point 54.

  - MOE seen as not capable of providing necessary strategic thinking - Appendix 4 - point 59.

  - Drinking water system must be coherent linking policy, expert advice, funding, regulation, enforcement and operations in a continuous cycle. If Ministry of the Environment ("MOE") to take lead it must be completely overhauled requiring regulatory, inspection, scientific, and enforcement resources and the support of central agencies and office of Premier. A second alternative is to give the lead responsibility to the Ministry of Health but this is not recommended because Health is fully

occupied with chronic medical care problems, and cannot take on the watershed-based policy mandate that effective drinking water management requires. A third alternative of creating an arms-length organization is not recommended because it would be farther from government, not well placed to assume leadership role, and the residual role of the MOE stripped of regulatory and enforcement responsibilities would be minor, weak, and lacking in technical experience - Appendix 4 - point 103.

- MOE should be assigned lead responsibility for drinking water in Ontario and its responsibilities for drinking water protection need to include watershed management. As part of this approach Conservation Authorities should become MOE's responsibility. USEPA takes an explicit watershed approach under the USSDWA, as do other countries (UK, Australia). MOE also should have standing under the *Planning Act* as a public body to address drinking water matters arising under that legislation - Appendix 4 - point 93.

- Ontario needs a drinking water policy development capacity/framework to ensure all ministries and agencies take account of the requirements for safe drinking water. Accordingly, Ontario needs to overhaul and enlarge the scope of its drinking water safety legislation - Appendix 4 - point 82. [Observation - OWWA/OMWA support having the MOE retain the lead for drinking water protection in the province under a system enhanced along the lines described by D'Ombrain in points 102, 103, 93, and 82].

- *Source water:*

  - MOE does not have the mandate to manage drinking water resources on a watershed basis and there is no agreed upon policy with respect to drinking water with other provincial ministries such as agriculture, municipal affairs, and health - Appendix 4 - point 5.

  - OMAFRA policies and programs have potentially major impacts on the safety of drinking water in the province - Appendix 4 - point 31.

  - OMAFRA activities should be integrated into drinking water management framework, otherwise promotion and protection of "normal farm practices" may meet only short-term needs of agriculture producers - Appendix 4 - point 57.

  - MOE should be assigned lead responsibility for drinking water in Ontario and its responsibilities for drinking water protection need to include watershed management. As part of this approach Conservation Authorities should become MOE's responsibility. USEPA takes an

explicit watershed approach under the USSDWA, as do other countries (UK, Australia). MOE also should have standing under the *Planning Act* as a public body to address drinking water matters arising under that legislation - Appendix 4 - point 93.

- *Financing:*

  - Municipalities received generous treatment from province through OWRC. Grants, cheap loans, and paternalistic ownership and operational arrangements shielded consumers from true costs of water facilities. Thus, consumers have become accustomed to unrealistic water rates. Years of low rates have meant that municipal attempts to raise water rates to cover infrastructure rehabilitation costs have been met with local opposition. Consequence - gradual decay of water & sewage infrastructure - Appendix 4 - point 68.

  - There is a body of informed concern that financial programs (loans/grants) distort economic relationship between users and providers of drinking water to the detriment of safe drinking water. Needed: alternatives to piecemeal loans and grants. Providing means for municipalities to finance drinking water systems must be a central element of provincial policy - Appendix 4 - point 86.

  - Ontario must consider policies that contribute to public safety by encouraging full-cost pricing or by providing stable funding to subsidize new facilities particularly for smaller municipalities. If province continues with OCWA as an operator of facilities, it must ensure that OCWA does not encourage smaller communities to charge uneconomic rents for water/sewage services. As long as users do not pay real costs, facilities will be substandard unless the province is prepared to provide financial assistance comparable to the 1960s. To the extent this is unlikely, the current arrangement is a threat to public health - Appendix 4 - point 101.

- *Consumer and public information:*

  - The province should consider adopting a process similar to that required by the USSDWA, where drinking water suppliers must provide customers with a "consumer confidence report" - Appendix 4 - point 87. [Observation - To the extent this concept is not now incorporated into section 12 of the new drinking water regulations - Reg. 459/00 - OWWA/OMWA support this approach. This would include production of these reports on an annual basis as is required under the USSDWA].

The OWWA/OMWA endorse these findings from the D'Ombrain report and suggest they support the recommendations the organizations make later in these submissions for improving the legislative regime in Ontario (and federally where necessary) including with respect to such matters as source water protection, financing, and consumer and public information. OWWA/OMWA also submit that these findings from the D'Ombrain report support the recommendations that will be made by their consultants in subsequent reports to the Commission respecting Issues 6 (source water protection), 14 (financing), and 12 (communications).

C. The Sancton Report

The Commission requested that Sancton review, among other things, whether the laws and institutions of Ontario conduce to the primacy of clean water in Ontario. Among the findings and conclusions in the Sancton report are the following (organized by subject matter - reference to Appendix and point refers to Appendix and point in these submissions). Observations in square brackets are those of OWWA/OMWA - not Sancton:

- *Financing:*

  - Eventually, federal government through CMHC provided additional capital assistance for waterworks. Between federal and provincial assistance, the total grant to a local municipality could reach 100 percent. Viewed as eroding local responsibility, accountability, and inconsistent with more realistic water user charges, though problem of whether smaller municipalities can "go it alone" also of concern - Appendix 5 - point 20.

  - In early 1990s, OMWA stressed the need for accurate and comprehensive accounting for water-supply systems and the need for full-cost pricing. OMWA said to want OCWA to revise the grant program so that it focused on loans not grants - Appendix 5 - 23.

  - In 1996, "Who Does What" sub-panel stated that years of generous provincial subsidies had undesired effect of overbuilding infrastructure beyond growth needs of communities. Consequently, because consumers have not had to pay for full cost of providing water (and sewer) services, they have had little incentive to conserve water resources - Appendix 5 - point 24.

  - Sub-panel also noted that it supported full-cost pricing and user fees as a means of reducing costs and promoting conservation - Appendix 5 - point 25.

The OWWA/OMWA endorse these findings from the Sancton report and suggest they support the recommendations the organizations make later in these submissions for improving the legislative regime in Ontario (and federally where necessary) with respect to financing matters. OWWA/OMWA also submit that these findings from the Sancton report support the recommendations that will be made by their consultants in subsequent reports to the Commission respecting Issue 14 (financing).

VI. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS OF OWWA/OMWA ON GOVERNANCE ISSUES

The submissions of OWWA/OMWA in this document have focused on governance matters corresponding to Issues 2 & 4 from the original and amended Study Lists of the Commission. Part II of these submissions identified the particular governance interests of the OWWA/OMWA in Part II of the Inquiry. The submissions noted the primary interest of OWWA/OMWA in providing the Commission with evidence on best management practices and policies that should be employed to protect the drinking water system based on the collective experience and expertise of OWWA/OMWA membership. The Commission's identification of governance issues as key concerns for Part II of the Inquiry has implications for the application of best management practices by water utilities in Ontario including the impact associated with possible introduction of new laws respecting protection of drinking water. Accordingly, the governance interests of OWWA/OMWA in Part II of the Inquiry include ensuring that any proposed legal or regulatory regime coming out of the Part II process, encourages the identification and implementation of best management practices by water utilities in the province.

Part III identified the constitutional responsibility of governments in Canada for the provision of safe drinking water, with particular emphasis on the federal spending power as authority for federal government involvement in support of provincial drinking water protection initiatives. In this regard, the submissions noted that the federal spending power holds great potential to assist in financing the expenditures that may be necessary in the drinking water field in future in Ontario (and other provinces). Leading constitutional authorities suggest that under the federal spending power, Parliament may spend or lend funds to any government, institution, or individual it wishes, for any purpose it chooses, and may attach to any grant or loan any condition it chooses, including conditions it could not directly legislate. The courts have been prepared to accept the exercise of this power by Parliament because withholding federal monies to fund a matter within provincial jurisdiction does not result in regulation of that matter by the federal government. Therefore, pursuant to the federal spending power a federal department or agency with the requisite statutory enabling authority with respect to drinking water could do a number of things. It could condition loans or grants to Ontario (and other provinces), or other entities respecting such matters

as standards, infrastructure development and renewal, source water protection, training and certification, research and related areas of concern.

However, the submissions noted that for reasons that OWWA/OMWA will make clear in subsequent reports to the Commission in the coming months, the OWWA/OMWA support a more judicious use of the federal spending power. In particular, OWWA/OMWA support the view that to the maximum extent feasible municipal water systems should be self-financed, based on user fees and charges, and that the rates charged should be based on a system of full-cost accounting. Accordingly, OWWA/OMWA believe that if the federal spending power were to be invoked to justify federal legislation in the drinking water field, that any such federal law focus primarily on the provision of loans as opposed to grants, particularly with respect to drinking water infrastructure development and renewal.

Part IV identified the primary components of safe drinking water law in the United States (USSDWA) where the OWWA, through its affiliation with the AWWA, has had long and extensive experience. The submissions noted a number of elements that appear to be key components of the USSDWA. These include the following. First, development, implementation, and enforcement of legal standards for certain drinking water contaminants and treatment measures. Second, groundwater protection consisting of three elements (a) sole source aquifer areas, (b) critical aquifer protection areas (within the sole source aquifers), and (c) wellhead protection. Third, is the need to engage in watershed (source water) protection. Fourth, a financial regime to sustain the various elements of the program and to develop and maintain the drinking water infrastructure, including operator training and certification, and capacity to meet regulations. Fifth, is the need to provide consumers and the public with access to information.

The OWWA/OMWA also referred the Commission to the direct experience of AWWA utility members in the United States because the latter are regulated under the USSDWA. Key aspects of the USSDWA that appear to work and not work, according to AWWA members, include the following. First, the state revolving loan fund, which has provided much needed financial assistance to utilities to ensure compliance with the law, may have a funding level that is inadequate by at least an order of magnitude. Second, regulatory standards that provide clear contaminant and treatment level targets do not encourage or allow for water utility continuous quality improvement programs. Third, source water assessment programs have provided better understanding of contaminant sources but have revealed the drinking water law's limited ability to address such problems because of inadequate integration between this law and general water pollution control law. Fourth, as more standards for newly regulated contaminants are developed under the drinking water law, and as the regulatory regime grows correspondingly more complex, many small systems lack the managerial and technical expertise to keep up.

Part V examined particular machinery of government concerns that were identified by Commission consultants and that OWWA/OMWA supports regarding such matters as lead ministry, enhanced system and drinking water law, standards, financing, source water protection, training and certification, and consumer and public information access.

In light of the above, the OWWA/OMWA submit that the Commission should make the following recommendations to the Ontario Government on governance matters:

1. That any proposed legal or regulatory regime on drinking water in Ontario should recognize and encourage the identification and implementation of best management practices, including continuous quality improvement programs, by water utilities in the province.

2. That if federal legislation in the drinking water field becomes necessary, it should be recognized as being justified under the federal spending power and the federal government urged to focus primarily on the provision of loans as opposed to grants, particularly with respect to drinking water infrastructure development and renewal. Otherwise, to the maximum extent feasible, water utilities should be self-financed, based on user fees and charges, and the rates charged should be based on a system of full-cost accounting.

3. That the MOE retain the lead for drinking water protection in the province under a legal and regulatory system enhanced along the lines described by D'Ombrain (as summarized above - see Part V.B.).

4. That the following elements be developed, integrated, or enhanced (where they are already in place) as part of any drinking water law reforms in the province:

    - ❖ Development, implementation, updating, and enforcement of legal standards for certain drinking water contaminants and treatment measures;

    - ❖ Groundwater protection consisting of three elements (a) identification of sole source aquifer areas, (b) protection of critical aquifer areas (within the sole source aquifers), and (c) wellhead protection;

    - ❖ Watershed (source water) assessment and protection not otherwise covered in the groundwater protection initiatives referred to above;

    - ❖ Operator training and certification;

    - ❖ Consumer and public access to information;

- ❖ Capacity development measures;

- ❖ A financial regime (such as a revolving loan fund) to sustain the above elements of the program and to develop and maintain the drinking water infrastructure that is consistent with principles of full-cost accounting.

5. That stakeholders (including OWWA/OMWA and others) be afforded an opportunity to participate and be formally consulted through meetings and other mechanisms on the development of proposed legislative and regulatory reforms with respect to drinking water including the development of new or amended standards prior to their adoption as regulations.

6. That the OWWA/OMWA governance submissions and recommendations contained in this document should be viewed together with, and as complementary/supplementary to, those contained in our other reports to the Commission and adopted by the province.

VII. REFERENCES

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Water Works and Sewage Works Regulation, O. Reg. 435/93, as am. (*OWRA*).

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D. W. Schnare, "Environmental Rationality and Judicial Review: When Benefits Justify Costs under the Safe Drinking Water Amendments of 1996" (1998) 5 Hastings West.-Nw. J. Env. L. & Pol. 65.

Magazines

R. Platt, P.K. Barten, & M.J. Pfeffer, "A Full, Clean Glass?: Managing New York City's Watersheds, *Environment* 42:5 (June 2000) 8.

Electronic Media

American Water Works Association <http://www.awwa.org>

Ontario Water Works Association <http://www.owwa.com>

VIII. APPENDIX 1: LETTER TO COMMISSION COUNSEL - MR. RON FOERSTER, MAY 15, 2001 RESPECTING CONSTITUTIONAL MATTERS

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Our File No. 20035
May 15, 2001

VIA ELECTRONIC AND ORDINARY MAIL

Mr. Ronald Foerster
Commission Counsel
The Walkerton Inquiry
180 Dundas Street West, 22nd Floor
Toronto, Ontario
M5G 1Z8

Dear Mr. Foerster:

Re: Submissions on Commission Draft Discussion Paper - Constitutional Jurisdiction Over Safety of Drinking Water

I am counsel to the Ontario Water Works Association ("OWWA") and the Ontario Municipal Water Association ("OMWA"). As you are aware both organizations have standing in Part II of the Inquiry.

On behalf of both OWWA/OMWA, I wanted to thank you for the preparation of the above document. The issue of jurisdictional authority to act with respect to protection of drinking water is a crucial issue in the view of my clients, whose members carry major responsibilities for the provision of safe drinking water in the province. In the view of my clients, the jurisdictional issue will require careful consideration as government moves forward as part of the Inquiry process and thereafter.

As I understand the purpose of your paper, it is to explore the scope of provincial and federal jurisdiction over drinking water under the *Constitution Act 1867*. In this regard, I agree with the assessment in the paper that the provinces generally have broad jurisdiction over drinking water regulation based on provincial heads of power such as property and civil rights, matters of a merely local or private nature, municipal institutions in the province, etc. I agree further

that potential federal jurisdiction under both functional and conceptual heads of power under the Constitution could conflict with provincial legislative drinking water initiatives.

However, your paper also reviewed examples of where federal legislative initiatives appear to provide opportunities for cooperative federal-provincial action with respect to water management. It was on this last point that I have been instructed to write to you regarding what might be a fruitful line of inquiry in subsequent drafts of your paper. The subject actually is mentioned briefly at page 41 of your draft. You note that Professor Lederman has suggested that the federal spending power, section 91(1A), would enable the federal government to play a prominent role in pollution abatement through the financing of sewage systems and pollution research and through making corporate loans conditional on the adoption of anti-pollution measures.

In the view of my clients, the federal spending power holds great potential to assist in financing the expenditures that may be necessary in the drinking water field in future in Ontario (and other provinces). Areas that likely will require funds include the development and implementation of enforceable standards, infrastructure development and renewal, source water protection, training and certification, and related matters. Moreover, as you are aware, the federal spending power has been relied on by Parliament to impose national standards for hospital insurance, medical care, and student housing programs as a condition of federal contribution to these provincial regimes. Each of these federal spending power initiatives in social and health-related areas has been upheld by the courts.[11]

Indeed, leading authorities, such as Professor Hogg, have suggested that under the federal spending power, Parliament may spend or lend funds to any government, institution, or individual it wishes, for any purpose it chooses, and may attach to any grant or loan any condition it chooses, including conditions it could not directly legislate.[12] The courts have been prepared to accept the exercise of this power by Parliament because withholding federal monies to fund a matter within provincial jurisdiction does not result in regulation of that matter by the federal government.[13]

Therefore, under the federal spending power a federal department or agency with the requisite statutory enabling authority could do a number of things in the drinking water field. In particular, it could condition loans or grants to Ontario (and other provinces), or other entities respecting such matters as

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[11] See *e.g. Re Canada Assistance Plan*, [1991] 2 S.C.R. 525; *Eldridge v. British Columbia*, [1997] 3 S.C.R. 624 (dictum upholding *Canada Health Act*); *Central Mortgage and Housing Corporation v. Co-op College Residences* (1975), 13 O.R. (2d) 394 (Ont. C.A.) (upholding federal loans for student housing).

[12] Peter W. Hogg, *Constitutional Law of Canada*, looseleaf, Vol. 1 (Toronto: Carswell, 1998) at 6-17).

[13] *Re Canada Assistance Plan*, *supra* note 1 at 567.

standards, infrastructure development and renewal, source water protection, training and certification, and related areas of concern.

However, for reasons that OWWA/OMWA will make clear in various submissions and reports to the Commission in the coming months, my clients support a more judicious use of the federal spending power. In particular, OWWA/OMWA are of the view that to the maximum extent feasible municipal water systems should be self-financed, based on user fees and charges, and that the rates charged should be based on a system of full-cost accounting. Accordingly, OWWA/OMWA believe that if the federal spending power were to be invoked to authorize federal legislation in the drinking water field, that any such federal law focus primarily on the provision of loans as opposed to grants, particularly with respect to drinking water infrastructure development and renewal.

OWWA/OMWA believe that this type of cooperative federal initiative in conjunction with necessary provincial law reforms will be essential if drinking water quality is to be maintained and enhanced in the coming years in Ontario.

I would be pleased to discuss this matter further with you at the forthcoming expert meetings or public hearings, or otherwise at your convenience.

Yours truly,

"Joseph Castrilli"

Joseph F. Castrilli

c.c. Rod Holme, OWWA
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IX. APPENDIX 2: THE U.S. SAFE DRINKING WATER ACT - WHAT WORKS AND WHAT DOESN'T - AN AWWA MEMBER PERSPECTIVE

THE U.S. SAFE DRINKING WATER ACT
WHAT WORKS AND WHAT DOESN'T

Prepared by

Rod Holme
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The U.S. Safe Drinking Water Act (SDWA) prescribes, in detail, a complex federal regulatory program for both drinking water utilities and state regulatory agencies. For many years prior to the adoption of the SDWA, states ran their own drinking water regulatory programs. The current SDWA regulations are an outgrowth of U.S. Public Health Service guidelines that were originally developed to address interstate railroad and airplane travel. However, over time, many felt that some national program, with consistent quality components, was necessary to better protect public health. In addition to drinking water, this trend towards increasing federal control in the U.S. now covers a broad range of issues such as food safety, children's toys, automobiles, education, housing, medical care, and hunting and fishing. There is still considerable debate between federal and "states' rights" proponents on these issues.

This trend in the U.S. towards increasing federal control for national standards for a broad range of issues is generally tied to federal funding. In other words, the federal standards must be followed to get the federal funding. Federal funding provides the "hook" for the national drinking water program. The federal government plays a substantial role in the drinking water program; however, the states actually implement the program. The federal government (the Environmental Protection Agency [EPA]) sets the federal standards, and each state must adopt its own standard that is at least as strict as the federal standard to maintain "primacy". If the state doesn't maintain "primacy", then the federal government will come in and run the drinking water program in that state through "direct implementation". Currently, only one state (Wyoming) doesn't have primacy, and EPA has direct implementation of the program in the District of Columbia and U.S. Territories such as Puerto Rico, Guam, etc.

The three major SDWA iterations (1974, 1986, and 1996) have all incrementally improved the implementation of the federal drinking water program and increased federal control. However, some components of the SDWA work better than others. The following is a summary of what works and what doesn't work quite so well in the SDWA. These observations are intended as a constructive critique of the SDWA to be used as a guide to the discussion of such regulatory approaches in other jurisdictions including Ontario.

WHAT WORKS

- The federal standards provide utilities with clear and well-defined treatment targets—the contaminants and the appropriate levels are clearly stated in the regulations.
- The process for setting the federal standards through the Contaminant Candidate List, (CCL), regulatory determination, proposed regulation, and then a final regulation is clearly laid out in the SDWA.
- The public is afforded an opportunity to participate in the development of the federal standards. EPA typically holds stakeholder meetings to solicit input prior to developing a proposed regulation. However, many of these meetings are held in Washington, DC, and that creates travel difficulties for the general public. The proposed regulations are published in the *Federal Register* and the public can comment on the proposed regulation. However, the public at large generally doesn't monitor the daily publication of the *Federal Register*.
- Standards are revisited every six years in order to keep current with ongoing research. However, the research to support the six-year reviews is almost non-existent. Moreover, the standards can only be made less stringent if doing so provides equal or better health protection, based on the latest research.
- Costs to the public are taken into account in the development of federal standards. However, the affordability threshold focuses on the average household and doesn't take into account low-income households.
- The monitoring frequencies are generally well-defined. However, the standardized monitoring framework is overly complex, and creates implementation difficulties when monitoring waivers are included.
- The analytical methods are also clear and well-defined. The laboratory process provides for a relatively high quality of data; however, the process is so prescriptive that ongoing improvements in analytical methods are extremely slow in obtaining federal approval.
- Water treatment plant operators are generally well-trained, with certification based on the skills necessary for their particular type of treatment.
- New source water assessment programs are providing both utilities and states with a better understanding of potential sources of contamination.

However, going beyond the assessments to true source water protection is proving to be challenging.

- New Consumer Confidence Reports (CCRs) are providing the public with a summary of where their water comes from, how it is treated, and what is found in the water. However, no ongoing assessment is being conducted to determine if the typical consumer is really reading their CCR, and if not, how the CCRs could be improved.
- A new State Revolving Loan Fund for drinking water has provided some much needed financial assistance for compliance. However, the funding for this program is woefully inadequate by at least one order of magnitude for current regulations. The funding gap grows even larger when future regulations and aging distribution systems are factored into the overall needs.

WHAT DOESN'T WORK

- As EPA continues to develop more standards, utilities are presented with an ever-increasing list of regulated contaminants. The shorter term and not always coordinated regulatory program conflicts with the need of utilities to plan major capital works in the long term.
- The more "command and control" approach to regulations resulting from the SDWA currently does not allow for continuous quality improvement programs.
- A few critical statutory deadlines in the SDWA were negotiated and fixed, rather than being formulated based on what it would take to conduct the appropriate research. These deadlines are often unrealistic and have resulted in the stated desire for regulations to be based on "sound science" to be driven by deadlines instead.
- The process for developing federal standards is slow and cannot respond to emerging contaminants. The process for identifying a contaminant through the Contaminant Candidate List (a five year cycle), conducting the appropriate research (6-8 years), making a regulatory determination (another five year cycle), issuing a proposed regulation (two years), and then issuing a final regulation (another two years) can take twenty years or more.
- Once a standard is finalized, the SDWA only allows utilities three years to comply with the standard (an additional two years can be granted by the state if significant capital improvements are needed). However, five years is not enough time for adoption of any type of complex treatment technology or construction of a new treatment plant. More time is needed (on the order of 6-8 years) for compliance to allow for pilot testing, selection of the appropriate technology, engineering design, and construction.
- States only have two years to adopt a new federal standard in order to maintain primacy. This short timeframe creates difficulties in many states. This timeframe is almost impossible in states like Texas where the legislature only meets every two years.

- Cost-benefit language in the SDWA is a bit vague and open to interpretation based on current politics.
- As a matter of practice (not law), public participation in the development of federal standards is generally limited to environmental advocacy groups, which may or may not represent the views of the general public. Consumer advocates, who generally represent low-income households, typically do not participate in the development of federal standards.
- The medical outreach and education component of the SDWA isn't being implemented. The medical community doesn't play any role at all in the development of federal standards.
- An overall, comprehensive drinking water research program to logically support the development of the regulations has never been developed. Research priorities don't necessarily match up with regulatory needs.
- Funding for research (analytical methods, occurrence, health effects, and treatment) is totally inadequate to support both the development of new standards and the six-year review of the existing standards.
- Funding to support the state programs is totally inadequate based on the new state program requirements in the 1996 SDWA Amendments.
- Funding for the Drinking Water State Revolving Loan Fund is totally inadequate based on the total need for compliance with both current and future regulations.
- The federal data system for the drinking water program just doesn't work. The system is not user-friendly, and it is difficult to make corrections if errors are made.
- The variance and exemption components of the SDWA (which could allow a little more time for compliance) just don't work and are not being used by the states or the utilities.
- SDWA has limited (if any) ability to address upstream sources of contamination and source water protection. There is inadequate integration of federal and state authorities covering drinking water (SDWA) and water quality (Clean Water Act).
- Many small systems lack the managerial and technical expertise to accommodate the growing complexity of the regulatory program. As more and more systems are required to adopt treatment for the first time, this will become a major problem.
- SDWA doesn't address systems having less than 15 connections or serving less than 25 people (year-round). Some builders/developers build small systems just under these limits to escape federal regulation.
- SDWA doesn't address private wells. Homeowners with private wells are basically on their own for their own health protection.

X. APPENDIX 3: THE BENIDICKSON REPORT - A POINT FORM SUMMARY

The following is a brief summary of some of the key points raised in Commission Issue Paper # 2 (Benidickson) - The Development of Water Supply and Sewage Infrastructure in Ontario, 1880-1990s: Legal and Institutional Aspects of Public Health and Environmental History. Numbers in brackets refer to the page number in the Issue # 2 report where the point may be found.

Summary Points From Issue Paper # 2

1. The provision of water supplies traditionally viewed as a local matter, but influenced by an array of supportive provincial measures and to varying degrees by federal and international initiatives (1).

2. Historically limited financial base of local government. Perceived local lack of priority to secure high quality drinking water and municipal inability to protect local water supplies lead to establishment of local boards of health in late 19th century (4).

3. Historic and continuing statutory authority (from late 19th century on) of boards of health over water quality (8).

4. Water suppliers expected to provide water in a "pure and wholesome" state (15).

5. Persistent and widespread assumption from late 19th century on that underground water supplies immune from contamination (16).

6. Power of board of health to approve or reject water supply sources and on-going conflict with local politicians concerned with practicalities of municipal finance. Perception by local officials that remote senior government levels imposing abstract and artificially high standards (19).

7. Early 20th century engineering preference for spending money on water treatment rather than on attempts to safeguard water supply sources with buffer zones or sewage treatment facilities (20).

8. Training and certification issues. Problems in the 1930s-1940s in securing properly qualified/trained personnel especially in smaller (sewage) plants (40, 41).

9. British court case from the 1930s finding municipality liable for contaminated water supplies through failure to maintain suitable supervision of water

treatment operations, interruption in chlorination process, and inadequate surveillance (43-47).

10. Rise of conservation authorities in 1940s to protect and conserve natural resources. Though did not show much interest in pollution control, watershed management and cost-sharing arrangements between levels of government viewed as important precedent (48-49).

11. In 1950s, availability of water supply viewed as a condition precedent to urban and industrial development (49).

12. Financing a key factor affecting development of treatment facilities as well as lack of public (ratepayer) support for necessary expenditures (50-51, 56).

13. Fragmentation of government responsibility for water pollution control noted in the 1950s (51) and 1990s (116).

14. Federal financing ultimately made available to assist municipalities across Canada with expenditures on sewage infrastructure (57, 72).

15. Court cases of municipal liability in the 1950s noted for inadequately operated sewage treatment facilities (i.e. where defense of statutory authority did not protect operators) (68-69).

16. Cases such as the above lead to rise of OWRC Act in mid 1950s and explicit defense of statutory authority (i.e. a defense as long as operator in compliance with requisite approvals) (72, 96).

17. The OWRC Act viewed as ensuring supply of water and disposal of sewage. Discussion of extent to which such facilities were to be viewed as self-financing (75-76).

18. Late 1950s-early 1960s saw expansion of provincial funding for waterworks and expansion of federal role. Rationale for federal involvement in financing sewage and water works (through loans/grants until 1980) was the need for such facilities and the inability of municipalities to fund same (81, 83, 133).

19. Authority under Canada Water Act of 1970 for federal government to establish water quality management areas though none ever established (84).

20. Author noting low number of OWRC prosecutions because OWRC devoting resources to badly neglected water and sewage infrastructure (85).

21. Author noting burden of farm operations on provincial waterways (95).

22. Author noting conflicting enforcement philosophies of OWRC viv-a-vis municipalities during 1960s (i.e. conciliatory vs. coercive enforcement) (107, 146).

23. Noting creation by Supreme Court of Canada of strict liability offences in the 1970s (104).

24. Noting creation and purposes of OCWA in early 1990s (1) assist municipalities to provide water/sewage works/services on cost recovery basis, and (2) protect health, environment, and encourage water resource conservation, and provincial land use policies (112).

25. Noting creation of farm practices protection legislation in the 1990s that has the effect of insulating "normal farming practices" from certain judicial enforcement remedies (115) (Is this type of protection for farmers consistent with source water protection?)

26. Suggestion that training and licensing qualification of water works/sewage operators even in the 1990s - notwithstanding movement toward mandatory certification - not effective in the smallest communities where the "operating staff often consist of a few people with limited education, whose training consists mainly of unguided practical experience" (118-120).

27. In 1996 500 water treatment plants in Ontario and 437 sewage treatment plants. 75% of the 937 owned by municipalities, 25% owned by OCWA before 1997 statutory authority to transfer remainder to municipalities (120).

28. 1987 Ontario study by legislative research service suggesting that province had no groundwater strategy or requirements for wellhead protection programs (123). (Note though that under the section 2 of the *Public Utilities Act* it is possible to expropriate or otherwise acquire lands to protect purity of water).

29. Enforceable drinking water standards in Alberta and Quebec. Federal government has non-enforceable guidelines only (127).

30. Ontario now has enforceable regulatory standards (O. Reg. 459/00). USSDWA has enforceable standards. Recently, U.S. has placed greater emphasis on protection of drinking water sources, especially groundwater (128).

31. DWSP program implemented in 1986 with intention that it would ultimately serve all municipal water supplies. In addition to regular reporting, the program was intended to provide "action alerts" whereby the public would be notified of exceedances and remedial action taken. By 1990 the DWSP was operational in 76 municipalities (129).

Report Conclusions

32. Public health officials largely dominated policy development in early period (19th century/early 20th century), but have become less prominent (145).

33. Need for pure and wholesome water may be traced to waterworks legislation dating from the early 19th century (145).

34. Province has consistently maintained that water is a local responsibility, but province has attempted to shape and oversee system's effectiveness (146).

35. Emphasis has been on conciliatory rather than coercive compliance re water quality protection (146).

36. Concern with capacity of smaller communities to perform adequately as capital requirements and technological standards have increased (146).

37. Municipal reluctance/inability to undertake expenditures on water/sewage lead to significant initiatives at senior levels of government to accelerate installation, extension, refinement of these works (146).

XI. APPENDIX 4: THE D'OMBRAIN REPORT - A POINT FORM SUMMARY

The following is a brief summary of some of the key points raised in Commission Issue Paper # 4A (D'Ombrain) - Machinery of Government for Safe Drinking Water in Ontario. Numbers in brackets refer to the paragraph and page number in the Issue # 4A report where the point may be found. Headings in this memo correspond to headings in the Issue # 4A report.

Summary Points From Issue Paper # 4A

Drinking Water Management and Public Policy

1. In the late 19th century, responsibility for water quality remained at the local level because health boards did not have the financial resources to overcome the resistance of municipal councils to costly proposals for avoiding contamination of water supplies (para. 14, pages 7-8).

2. In the 1950s, the OWRC exercised its powers without intervention from any minister (para. 17, page 9).

3. Notwithstanding the existence of first the OWRC and now the Ministry of the Environment (MOE), the local jurisdiction of medical officers of health continues today, mainly in relation to biological public health threats (para. 18, page 9).

4. The OWRC was the vehicle for construction of water and sewage treatment facilities that were designed to facilitate growth without threatening provision of safe drinking water to communities (para. 20, page 9).

5. MOE does not have the mandate to manage drinking water resources on a watershed basis and there is no agreed upon policy with respect to drinking water with other provincial ministries such as agriculture, municipal affairs, and health (para. 21, page 10).

6. Period post the demise of the OWRC (i.e. after 1972) signaled a gradual decline in provincial funding of new facilities (para. 22, page 10).

7. Provincial role evolved from one of funding (post-war era) to one of licensing and certification (para. 23, page 10).

8. By 1990s there had been 30 years of deficit financing by federal and provincial governments resulting in a reduction in financial and human resources to carry out traditional government roles (para. 24, page 10).

9. Consequences of fewer resources in drinking water area: (1) funds for smaller municipalities became scarce, (2) government scientific monitoring and inspection either shifted to private sector or placed on a cost-recovery basis (para. 25, page 10).

10. Federal government has little formal involvement in provision of drinking water to Ontario residents. Federal government has an informal role with provinces through voluntary Drinking Water Guidelines. Ontario one of few provinces to make its standards legally enforceable regulations; and this a post-Walkerton development (para. 27, page 11).

11. Possible federal heads of constitutional authority [*Constitution Act, 1867*] with respect to water include fisheries [s. 91(12)], and "peace, order, and good government [preamble to s. 91]. (para. 28, page 11). [Report does not mention additional constitutional authority under the criminal law power - s.91(27) of the Constitution that has been the basis for federal legislation protecting health for decades]. Other more limited heads of power mentioned (e.g. federal land, Indian land (paras. 30-31, page 11).

12. Federal government has additional impact on water quality through spending programs (e.g. 1970s CMHC funding available to assist in capital funding for drinking water & sewage infrastructure) [report does not mention either the statutory authority for this - the *National Housing Act* - or the constitutional authority for this - s. 91(1A) - the federal spending power authority under the Constitution] (para. 33, page 12).

13. Federal government has not exercised its constitutional powers with respect to Ontario drinking water - with the exception of the voluntary Canadian Drinking Water Guidelines - and is not a significant player in existing arrangements for provision of safe drinking water (para. 34, page 12).

14. Lions share of constitutional authority lies with the province with respect to drinking water (para. 35, page 12).

15. Municipalities are creatures of the province under the Constitution, and bound by provincial statute to follow provincial direction (para. 37, page 13).

16. Currently, municipalities and public utilities commissions are owners and often operators of water & sewage facilities and required to act within the framework of provincial law (para. 38, page 13).

17. Municipalities responsible for funding water and sewage infrastructure, but the OWRC gave grants and loans to municipalities for this purpose. By late 1960s, OWRC was providing smaller municipalities with grants covering as

much as 85 % of water & sewage infrastructure capital costs (para. 39, page 13).

18. Result was protection of consumer from real costs of these services, and over-consumption and retarding development of competitive supply sector (para. 41, page 14).

Trend Summary

19. Until mid-1950s, municipalities funded water & sewage development without provincial assistance. This changed because of need to ensure adequate facilities to support urbanization. Between mid-1950s and early 1970s, OWRC took the lead in development, operation, and regulation of such facilities. Reliance on provincial subsidies instead of charging real costs to customers has not served conservation or economic efficiency objectives. Until 1970s, province focused its drinking water regime controls on public health considerations. Thereafter, health considerations with respect to drinking water were subsumed within wider environmental concerns of MOE. By 1990s, budget restrictions and aging water/sewage infrastructure converged. Federal jurisdiction represents an unrealized potential for a more prominent federal role. Provincial jurisdiction over resources also provides unrealized potential for a watershed approach to drinking water management para. 42a-h, pages 14-15).

Mandates and Institutions for Safe Drinking Water

20. Ontario Ministry of Finance has had an important impact on water management through programs designed to provide capital funding for water and sewage infrastructure. Finance played an important role in the cost-recovery mandate of OCWA and is responsible for Superbuild, which oversees all capital expenditure funded by the province including water & sewage facilities (para. 64, page 24).

21. Ontario Ministry of Natural Resources is the steward for public lands and waters that make up 87 % of the province (para. 77, page 27).

22. There is no inventory of groundwater in the province (para. 79, page 27).

23. Under the *Ontario Water Resources Act*, MOE is responsible for surface and groundwater, despite the general view that MNR is responsible for water quantity and MOE for water quality (para. 80, page 27).

24. MNR, working with local conservation authorities, is concerned with water resource management from the view of protection and preservation of water supplies on a watershed basis. However, the MNR is not regarded as a significant player in the provision of safe drinking water (para. 81, page 28).

25. MOE is the key player in the drinking water management system, taking on that function from the old OWRC in 1972. MOE approves water takings, licences well contractors/technicians, and the construction of water and sewage treatment facilities. Until 1985, the primary focus of MOE had been providing clean drinking water and sewage treatment through the funding of water and sewage infrastructure and operation of facilities. After 1985, the emphasis shifted to environmental assessment, waste management and reduction, and development and enforcement under the *EPA* and *OWRA* of the MISA regulations (designed to reduce water pollution from industries discharging directly into lakes and rivers). MISA does not apply to municipal and sewage facilities. (paras. 82-84, pages 28-29).

26. OCWA, created in 1993, was not a return to the OWRC because OCWA expected to compete with the private sector, nor did it have the financial resources, nor the autonomy of the OWRC (para. 88, page 30).

27. MOE has asserted that cuts in its operating budget during the mid-to-late 1990s had minimal impact on investigation and enforcement functions, though the impact on inspections was more significant (para. 96, page 31).

28. The *Health Promotion and Protection Act (HPPA)*, administered by the Ministry of Health, establishes health units (37 in province). The units are responsible for overseeing community sanitation, control of diseases. The Act also authorizes medical officers of health to issue orders to remedy health hazardous conditions (paras. 98-99, 103 pages 31-33).

29. Relationship between MOH and MOE important to effective operation of safe drinking water system. The new drinking water regulations of August 2000 require that the local health unit be notified by the owner and testing laboratory of any biological threat to drinking water so that the medical officer of health can make appropriate orders under the *HPPA* (para. 105, page 33).

30. Regulations under the *EPA* exempt animal wastes from waste management regulation (i.e. no certificate of approval requirements apply to animal waste management). However, discharges of animal wastes that may impair water quality still would be subject to potential prosecution under the *OWRA*. They also would be subject to prosecution under the *EPA* if they could not be characterized as arising from "normal farming practice." (para. 108, pages 33-34).

31. The *Farming and Food Production Protection Act (FFPA),* administered by OMAFRA, protects farming activities from civil liability when they are conducted according to "normal farm practice." An agricultural tribunal makes the determination of what is "normal practice". OMAFRA policies and

programs have potentially major impacts on the safety of drinking water in the province (para. 108-110, pages 33-34).

32. Ontario's municipalities own the province's water & sewage facilities. Most smaller municipalities contract out their operations to OCWA (para. 135, page 40).

33. OCWA is backed by the province's financial guarantee (para. 141, page 42).

34. OCWA has no policy role. It is an operational enterprise (paras. 145-146, pages 42-43).

35. Purpose of Superbuild is to consolidate infrastructure spending. Superbuild, through OSTAR, has available up to $240 million for public health and safety priorities, including water and sewage works for smaller towns. For funding to be provided for water infrastructure a municipality must be in compliance with the new drinking water regulation, or must commit itself to paying for any necessary improvements to meet the regulations. The program is not permanent. An estimated $9.1 billion is needed to rehabilitate Ontario's water & sewage systems (figures from AMO). Larger municipalities are expected to finance new plan using existing borrowing authorities and revenue from water rates (paras. 151-156, pages 44-46).

36. The Ontario Municipal Board recently upheld a municipal zoning by-law in Perth County limiting the size of livestock operations (para. 163, pages 47-48).

37. The Normal Farm Practices Protection Board, under the *FFPA*, is authorized to resolve disputes involving agricultural operations and determine what constitutes a normal farm practice. Farmers are protected from nuisance actions, injunctions, and municipal by-laws where their practices are found to constitute "normal farm practice." The Act does not protect farmers who have charges pending under the *EPA, OWRA, Pesticides Act, or HPPA*. The Board is subject to Ministerial direction, and has been directed - post-Walkerton - to recognize the validity of interim by-laws passed by municipalities to control storage and use of farm manure (paras. 165-170, pages 48-49).

38. The Environmental Review Tribunal has an impact on drinking water in Ontario in two ways: (1) environmental assessment hearings on the impact of major projects under the *Environmental Assessment Act*, and (2) appeal hearings on decisions of the MOE under the *EPA, OWRA, Pesticides Act* (para. 176-180, pages 50-51). [In practice, the impact of the ERT is marginal because generally there have been no environmental assessment hearings since Adams Mine in 1997, and fewer appeal hearings are occurring because the MOE is issuing fewer orders under regulatory legislation over the last five years].

39. In 1997, there were 627 municipal water works in Ontario serving 82% of the population. Groundwater supplied 399 of these plants, and surface water supplied the rest. Seventeen major water works provided water for 65% of Ontarians. Seventy-four % of water works provided services to communities of 3300 or fewer people (para. 185, page 52).

40. As owners/operators of water and sewage facilities, municipalities have major interest in the way the province carries out its responsibilities for provision of safe drinking water, particularly with respect to facility financing, which can afect pricing, competition, and ability to raise capital (para. 187, page 52).

41. Public utilities commissions have become relatively insignificant players in the provision of safe drinking water. Currently, there are only 15 in use for water facilities. PUCs are creatures of municipalities. The trend is toward abolishing PUCs and transferring water management to municipal works departments (para. 188-192, pages 53-54).

42. Conservation authorities (CAs) manage watershed lands, wetlands for recreational and wildlife purposes. The 36 CAs are financed through user and other fees, municipal levies, and provincial grants, though the latter are declining. Primary function of CAs is to control potential flood damage. They play no particular role in drinking water, as they focus mainly on water quantity, not water quality (para. 192-194, page 54).

Processes for Safe Drinking Water

43. Currently, all proposed new provincial capital expenditures are reviewed by Superbuild. Through OSTAR, municipalities apply to Superbuild (paras. 208-209, page 57).

44. Funding is integral to the operation of the province's system for provision and management of safe drinking water (para. 212, page 58).

45. Two primary drivers for new or upgrading of existing water facilities: (1) municipal expansion, and (2) MOE standards - new regulation of August 2000 (para. 213, page 58).

46. Reference to regulation 435/93 respecting classification of facilities and licensing of operators. Licensing described as the backbone of the operating standards in the regulation. Owners are responsible for ensuring that operators are properly licensed for the particular facility and required to provide 40 hours of training per year to each operator. Operators are responsible for maintaining monitoring and sampling records and operating equipment (para. 220, page 60).

47. If a water works operating authority supplies more than 50,000 litres per day or services more than five private residences it must monitor to ensure it is in compliance with new drinking water regulation. The regulation also sets out notification requirements - MOE, local MOH, facility owner must be provided with adverse test results (para. 222-223, pages 60-61).

48. DWSP, begun in 1986, had a participation rate of 24.7% (159/645) of water works as of March 1999 (para. 224, page 61).

49. MOE completed inspections (regarded as an abatement function) at all municipal water works in the province - December 2000 (para. 226, page 61).

50. MOE power to compel compliance includes the authority to: (1) order the closure of facilities, (2) require a municipality to take over a small waterworks facility, or (3) hire a suitable operator to ensure remedial action is taken (para. 227, page 61).

51. The new Drinking Water Regulation sets out the procedures to be followed by laboratories and owners if water shows specified adverse water quality results including immediate (24/7) notification of local MOH and MOE by telephone, followed by writing (within 24 hours) (para. 228, pages 61-61).

Institutions and Processes Evaluated

52. AMO quoted as stating that current arrangements lack coherence (para. 234, page 63).

53. OMWA quoted as stating similar views including concerns that a multitude of government agencies dealing with water works matters do so on a piecemeal basis without establishing an overall plan for the industry (para. 235, page 64).

54. Problem of unfocused, non-strategic, piecemeal approach to water recognized since demise of OWRC (para. 238, page 64).

55. Drinking water seen as depending on broader issues of water quantity and the role of water in overall ecosystem, but MNR water quantity mandate is not pursued with vigour, and MOE mandate (e.g. with respect to water taking permits) undertaken in the absence of adequate data on existing takings (paras. 239-241, page 65).

56. Conservation authorities should be part of overall provincial strategy for drinking water management (para. 243, page 66).

57. OMAFRA activities should be integrated into drinking water management framework, otherwise promotion and protection of "normal farm practices" may meet only short-term needs of agriculture producers (para. 244, page 66).

58. Needed: a Cabinet level strategic plan for drinking water resources that encompasses all the relevant ministries (para. 246, page 66).

59. MOE seen as not capable of providing necessary strategic thinking nor is it influential at Queen's Park. OMWA views noted that MOE ineffective, lacks support in the Premier's office, and has lost the confidence of water authorities (para. 247, page 67).

60. MOE problems seen to include (1) budget reductions, (2) staff cuts, (3) loss of technical expertise, and institutional memory, resulting in declines in inspection, monitoring, and enforcement activities (para. 248, page 67).

61. MOE R & D also seen as having been weakened with a corresponding impact on policy development (para. 249-250, pages 67-68).

62. Provincial auditor noting that budget cuts have lead to staff reductions and declines in inspections of municipal water treatment plants by over 50% in past five years. Provincial auditor also reported as noting that MOE guidelines allow environmental officers discretion to use voluntary measures even in the face of significant and repeat violations and where corrective action has not been taken (paras. 252-253, page 68).

63. MOE appears to know relatively little about the state of Ontario's drinking water facilities - reference to recent Superbuild RFP (para. 257, page 69).

64. MOE no longer involved in reviewing municipal planning decisions (because of one-window planning services through Municipal Affairs) (para. 259, page 69-70).

65. New drinking water regulation places onus for ensuring water treatment, testing, reporting, publicizing results, and corrective action on facility owners. Regulation seen as deficient with respect to obligations on regulator (para. 261, page 70).

66. Consequences of MOE's perceived shortcomings reflected in recent survey whereby deficiencies found in over one-half of province's 645 water treatment facilities including insufficient bacteriological/chemical testing, inadequate maintenance of disinfection equipment, non-compliance with minimal treatment guidelines, and inadequate operator training (para. 264, page 71).

67. Very significant budget cuts to MOE have had adverse consequences for the capacity of the government to fulfill its environmental responsibilities respecting clean drinking water. MOE not seen as equipped - by way of resources or expertise - to support government's responsibilities in this area (paras. 267-268, page 72).

68. Municipalities received generous treatment from province through OWRC. Grants, cheap loans, and paternalistic ownership and operational arrangements shielded consumers from true costs of water facilities. Thus, consumers have become accustomed to unrealistic water rates. Years of low rates have meant that municipal attempts to raise water rates to cover infrastructure rehabilitation costs have been met with local opposition. Consequence - gradual decay of water & sewage infrastructure (para. 269-270, page 72).

69. Funding of municipal water infrastructure not satisfactory and is now ad hoc in nature (para. 271, page 73).

70. Debate exists about whether province ought to be subsidizing water infrastructure or whether users should pay cost of the water they use rather than passing the real costs to the provincial/municipal budget and thereby creating disincentives to efficiency. OSTAR regarded as a subsidy that Ontario does not want to become permanent (para. 272, page 73).

71. Superbuild latest version of ad hoc approach to infrastructure financing. Subsidies may create efficiency disincentives but have a role in drinking water policy especially where there is a real inability to pay for safe drinking water. In cases of real inability to pay for safe drinking water, equalization or income subsidy could be considered (para. 273, page 73).

72. Possible models to follow: (1) competitive market based on real cost pricing, or (2) OWRC (para. 274, page 73).

73. PUCs have been allowed to fade as institutions responsible for water treatment facilities, particularly for smaller municipalities. OMWA has argued that PUCs are better placed to protect funding available for water treatment plants, notwithstanding that under *Public Utilities Act* surplus from water rates goes to general funds of municipality. KPMG study expresses concern that works departments at small municipalities lack management skills to operate water facilities and meet regulatory requirements. Demise of PUCs seen as an example of where action has preceded thought (para. 275, pages 73-74).

74. Question as to whether OMB can play an arbitral role between province and municipalities respecting financial ability of municipalities to pay for necessary water/sewage infrastructure (para. 276, page 74).

75. Federal government has little impact on provision of drinking water in Ontario (except for development with provinces of drinking water guidelines, Fisheries Act, and past infrastructure financing) (para. 277, page 74).

76. Lack of policy framework seen as detrimental to development of private sector committed to participation in water and sewage operations (para. 281, page 75).

77. Believes statutes should be concise, purposes/objectives clear, powers, duties and functions assigned precisely - and that current *OWRA* and *EPA* do not reflect these characteristics (para. 314-315, page 82).

78. Confused statutes lead to confused institutional arrangements with respect to drinking water as reflected in the uncoordinated relationship of agencies like OCWA, Superbuild, and the Normal Farm Practices Protection Board - to name just three (para. 324, page 85).

79. Effects of successive reductions in resources and the attitude of the province toward the public service has had deleterious effects on morale and capacity - loss of institutional memory, high turnover of leadership, etc. (paras. 332-334, pages 87-88).

Conclusions

80. Province lacks clear thinking about institutions and accountability reflected in lack of precision in assignment of powers, creation of conflicting regimes and agencies, extensive delegation, downloading, etc. (para. 335, page 88).

Machinery of Government Principles

81. [No comment].

A Policy and Organizational Framework for Providing Safe Drinking Water

82. Ontario needs a drinking water policy development capacity/framework to ensure all ministries and agencies take account of the requirements for safe drinking water. Accordingly, Ontario needs to overhaul and enlarge the scope of its drinking water safety legislation (para. 380-382, page 100).

83. The province has a clear duty to regulate provision of drinking water. Regulations should be clear and mandatory. Policies and guidelines are not good enough to control activities that impinge on public health and safety. The regime must rely on prevention, but also should be enforced. Thus, drinking water suppliers - like testing laboratories - should be certified in accordance with strict standards. Any system for fulfilling the province's

responsibilities must provide for regulation and enforcement (paras. 383-385, page 101).

84. Programs are needed to monitor and protect watersheds (para. 387, page 101).

85. Operation of municipal water and sewage systems may/should be provided on a full cost recovery basis (para. 388, page 102).

86. There is a body of informed concern that financial programs (loans/grants) distort economic relationship between users and providers of drinking water to the detriment of safe drinking water. Needed: alternatives to piecemeal loans and grants. Providing means for municipalities to finance drinking water systems must be a central element of provincial policy (paras. 390-392, page 102).

87. Accountability must be clear; statutes must be well-organized statements of purpose; and public input should be sought. Author recommends that the province consider adopting a process similar to that required by the U.S. *Safe Drinking Water Act*, where drinking water suppliers must provide customers with a "consumer confidence report." (para. 394-397, pages 102-103) [To what extent does section 12 of the new drinking water regulations serve this function?]

88. Author suggests that the province cannot place enforcement responsibility with an arm's length agency because such an agency cannot coordinate responses during a crisis. The public would expect a Minister to be in charge during a crisis (paras. 400-402, pages 103-104).

89. [Discussion at paras. 411-414, page 105 respecting federal constitutional authority does not mention importance of federal spending power].

90. Province's relationship with municipalities on drinking water unsatisfactory. Province cannot set unrealistic requirements for municipalities without being part of the solution. OSTAR program an example of the province's recognition that it has a responsibility to work with municipalities to ensure regulatory framework can be implemented (paras. 417-420, page 106).

91. OMWA has calculated cost per customer of implementing the new Ontario Drinking Water Regulations as 2 cents per year in Toronto, $0.75 in Kingston, and up to $1000.00 for a small communal system of six homes (para. 422, page 106).

92. The drinking water policy function rests with MOE, but MOE does not have the mandate to develop policy beyond its own regulatory/operational reach (para. 423, page 107).

93. MOE should be assigned lead responsibility for drinking water in Ontario and its responsibilities for drinking water protection need to include watershed management. As part of this approach Conservation Authorities should become MOE's responsibility. USEPA takes an explicit watershed approach under the US *SDWA*, as do other countries (UK, Australia). MOE also should have standing under the *Planning Act* as a public body to address drinking water matters arising under that legislation (paras. 436-443, page 109-111).

94. It is not necessary to have an arm-length agency from the province for drinking water regulation and enforcement. OMB and the Environmental Review Tribunal are sufficient for purposes of adjudicative oversight. In other jurisdictions (e.g. UK, Australia) drinking water is a direct responsibility of a Minister (paras. 445-447, pages 111-112).

95. Further pros and cons discussed of an arms-length agency from the province being responsible for drinking water. Reasons to consider such an agency include MOE's track record, and the ability of an outside agency being better able to argue against budget cuts than MOE. Reasons against using an arms-length agency include the lack of viability of what would remain of the MOE if regulatory and enforcement functions were removed. MOE would remain responsible for drinking water policy, but would lack operational expertise (paras. 448-457, pages 112-113).

96. Reference to the possibility of operator organizations being certified as meeting environmental quality and management standards (e.g. ISO 9001, ISO 14001) (para. 456, page 113). [No reference to Partnership for Safe Drinking Water.].

97. Author concludes regulation and enforcement functions should remain under direct responsibility of MOE (para. 458, page 113).

98. On the issue of ownership/operation of water/sewage facilities, author concludes that the province has no need to operate water facilities, but has a clear duty to regulate those that do. Notes that to the extent full-cost pricing promotes public safety by improving access to capital to build and renovate facilities, owners should be moving in that direction (paras. 459-467, pages 114-115).

99. Province has a responsibility to ensure that all municipalities regardless of size can finance water and sewage facilities. Could be done through (1) loans/grants, or (2) full-cost pricing of such services. Some large municipalities use full-cost pricing, some use water charges as a means of subsidizing the municipal budget, some recover less than cost, and some do not have the data to know whether what they are doing charges too much or too little. Ontario's recent funding efforts to renew infrastructure for smaller

municipalities continues ad hoc programs that, in the past, distorted pricing of water/sewage services. (para. 468-470, pages 115-116).

100. Ontario has not adopted policies that would change the way water/sewage facilities are financed, such as requiring metering of usage and ensuring that municipalities know the true costs of services provided. Author suggests four different organizational models for funding water infrastructure: (1) OWRC, (2) OCWA, (3) MOE, (4) Superbuild. Models raise question of whether policy and regulation should be separate from funding (i.e. the OWRC model). Author suggests there is no principle that supports separation of policy and regulatory expertise from funding. Because funding integral to public safety and should reside where the technical/substantive drinking water expertise resides (i.e. at MOE) author recommends MOE be responsible for funding administration with respect to infrastructure (paras. 471-475, 477, pages 116-117).

101. Ontario must consider policies that contribute to public safety by encouraging full-cost pricing or by providing stable funding to subsidize new facilities particularly for smaller municipalities. If province continues with OCWA as an operator of facilities, it must ensure that OCWA does not encourage smaller communities to charge uneconomic rents for water/sewage services. As long as users do not pay real costs, facilities will be substandard unless the province is prepared to provide financial assistance comparable to the 1960s. To the extent this is unlikely, the current arrangement is a threat to public health (para. 476, page 117).

Summary of what author sees as a reliable drinking water system

102. A comprehensive drinking water policy; coherent legislation identifying responsibilities, powers, accountabilities, public consultation, and periodic comprehensive review; a lead minister/ministry with broad mandate to protect drinking water sources; adequate resources to meet policy, expert, regulatory & enforcement roles; a sound approach to financing necessary infrastructure entrenched within the policy framework (through either full-cost pricing or by subsidies); appeal mechanisms concerning regulatory decisions and pricing; and a system of regular public reporting, evaluation and audit of lead ministry performance, other ministries and agencies, owners/operators of water/sewage facilities, and testing laboratories (para. 478a-h, page 118).

103. Drinking water system must be coherent linking policy, expert advice, funding, regulation, enforcement and operations in a continuous cycle. If MOE to take lead it must be completely overhauled requiring regulatory, inspection, scientific, and enforcement resources and the support of central agencies and office of Premier. A second alternative is to give the lead responsibility to the Ministry of Health but this is not recommended because Health is fully occupied with chronic medical care problems, and cannot take on the

watershed-based policy mandate that effective drinking water management requires. A third alternative of creating an arms-length organization is not recommended because it would be farther from government, not well placed to assume leadership role, and the residual role of the MOE stripped of regulatory and enforcement responsibilities would be minor, weak, and lacking in technical experience (paras. 479-483, pages 118-119).

XII. APPENDIX 5: THE SANCTON REPORT - A POINT FORM SUMMARY

The following is a brief summary of some of the key points raised in Commission Issue Paper # 4B (Sancton) - Provincial-Local Relations and Drinking Water in Ontario. Numbers in brackets refer to the page number in the Issue # 4B report where the point may be found. Headings in this memo correspond to headings in the Issue # 4B report.

Summary Points From Issue Paper # 4B

1. Water supply is a local public service that nonetheless the province has become involved in over the decades (1).

2. Piped drinking water is not a "public good" (e.g. clean air which cannot be denied to any one) but a "toll good" (e.g. electricity which can be denied to persons for non-payment of bills) (1).

3. Public authorities need not supply toll goods but detailed regulation is necessary (1).

4. Issue # 4B report focuses on local infrastructure for the treatment and delivery of piped water to individual consumers (2).

5. Paper assumes that an appropriate regulatory framework is (or can be) in place regarding water supply sources (2).

6. Piped water is a local concern because of the characteristics of its production and consumption (2).

Public Health

7. The province first became involved with local water-supply systems due to public health concerns (3).

8. The provincial government has required that public health authorities since the Public Health Act, 1884 test municipal water supplies (3).

9. In the 1980s-1990s public health aspects of water supplies received little attention during the "disentanglement" (who does what) debate (3).

10. Hopecroft report (1991) did suggest that water works **distribution** is a government function where the group that benefits is mostly local. Accordingly, allocating these services to the municipal level promotes

efficiency because it corresponds with local preferences. However, water works **plant** regarded as a function that should be predominantly a municipal responsibility but for which financing should be a shared responsibility (3-4).

11. Summary of provincial laws (*OWRA* and regulations, *Health Promotion and Protection Act*, *Public Utilities Act*) setting out provincial authority to regulate municipal water supplies (4).

12. Institutions responsible for safety of Ontario's municipal water supplies during 1990s include MOE, local medical officers of health, municipalities, and public utility commissions (4-5).

13. Crombie "Who Does What" sub-panel (1996) stated that responsibility for delivery of potable water rests with municipalities. The province should focus on setting and enforcing environmental standards and promoting conservation (5).

14. Disentanglement efforts paid limited attention to safety of drinking water; focus was on eliminating overlap and duplication (5).

15. Until August 2000, water supply testing done by both MOE and local water authorities. New *OWRA* drinking water regulations set out requirements for testing and for reporting results to MOE, local medical officer of health, and facility operator (5).

16. So-called "redundancy" in system seen as making good sense in drinking water safety context (6, 7).

Financing of Municipal Water-Supply Systems

17. Municipal need for direct financial assistance in the building and maintenance of water-supply systems seen as a second reason for provincial involvement. Provincial water-supply subsidy programs not available before 1956. View before then was municipalities were expected to provide and finance the services local residents wanted. However, by the 1950s it was apparent that municipalities could not keep up with the demands of rapid growth and urbanization (7).

18. Province's rationale for creation of OWRC to alleviate this problem: without sufficient clean water, municipalities could not grow. Thus, OWRC designed as a provincial tool for economic development (8).

19. Later on purpose of capital grants to municipalities for waterworks was seen as preventing municipalities from taking on an undesirable level of debt. Effect was to provide subsidized water. Today this is seen as inconsistent with both user charges and water preservation (10).

20. Eventually, federal government through CMHC provided additional capital assistance for waterworks. Between federal and provincial assistance, the total grant to a local municipality could reach 100 percent. Viewed as eroding local responsibility, accountability, and inconsistent with more realistic water user charges, though problem of whether smaller municipalities can "go it alone" also of concern (11).

21. With the advent of the *Capital Investment Plan Act, 1993* (that created OCWA) the provincial government wanted to target capital funding of water facilities to ensure that broader environmental concerns also were met (e.g. water conservation, sound land use planning, plant optimization, etc.) (13).

22. In early 1990s, provincial government knew very little about municipal water rates (14).

23. Also in early 1990s, OMWA reported as stressing the need for accurate and comprehensive accounting for water-supply systems and the need for full-cost pricing. OMWA said to want OCWA to revise the grant program so that it focused on loans not grants (14).

24. In 1996, "Who Does What" sub-panel stated that years of generous provincial subsidies had undesired effect of overbuilding infrastructure beyond growth needs of communities. Consequently, because consumers have not had to pay for full cost of providing water (and sewer) services, they have had little incentive to conserve water resources (14-15).

25. Sub-panel also noted that it supported full-cost pricing and user fees as a means of reducing costs and promoting conservation (15).

26. Sub-panel further noted that a few systems may pose health and environmental risks to local residents, and that these municipalities may be unable to finance total costs needed to bring these systems up to standard. In these circumstances, sub-panel recommended one-time financing combined with local contributions, to bring systems into compliance. None of this support should be available to service growth (15).

27. In 1997, province announced $200 million fund for capital needs for water (and sewer) facilities (15).

28. Later in 1997, province announced another $200 million water protection fund earmarked for financial assistance to allow municipalities to upgrade their systems (16).

29. In 2000, post-Walkerton, the province announced another $240 million (OSTAR program) to help municipalities upgrade their water systems to

comply with the August 2000 drinking water regulations. The province also sought matching funds from the federal government. In announcing the funding the province stated that municipalities are accountable for their water (and sewer) systems and the province is responsible for establishing and enforcing standards to protect water (16).

30. Author states that funding (particularly grants) programs have persisted though no one defends them and some government advisors (e.g. Who Does What) condemned them (17).

31. Author defines this as application of "functional" theory; i.e. declaration that water supply is a local function and that local users should pay full costs (17-18).

32. Author contrasts this with the "legislative" theory; i.e. central government may want to subsidize water supply systems for those people living in smaller, isolated communities (18).

Organizational Issues

33. Because municipalities are creatures of the provinces under the Constitution, the Ontario legislature has a responsibility to provide organizational mechanisms for local water-supply systems (18).

34. In late 1960s-1970s, province placed water supply under the direct control of municipal and regional governments rather than under local public utility and water commissions (19).

35. Author notes that Canada's first urban water-supply systems were owned and operated by private companies holding franchises issued by municipal councils (19-20).

36. Author refers to work of Freeman who in describing the statutory evolution of water and public utility commissions noted that waterworks were structured from the beginning as self-financing entities that were the property of municipal corporations, but who were required to provide any excess of revenues over expenses to the councils. As a result, the utilities did not enjoy dedicated revenues (and still don't) (20).

37. *Public Utilities Act* evolution described. PUCs have municipal powers to perform their functions, are incorporated bodies, and thus in law separate and distinct from their municipal councils. Sale of utilities (including water) only could occur with assent of electors, and PUCs not municipal councils responsible for utility administration (21).

38. Creation of OWRC did not affect local governance of waterworks (21).

39. Creation of regional government seen at one level as local countering of OWRC influence on development (22-23).

40. Author suggests that by mid-1970s provincial system for water supply was fragmented into three sectors: (a) areas served by provincially owned/operated facilities; (b) areas served by metropolitan/regional governments operating their own facilities; (c) areas served by local PUCs (23).

41. OCWA had no effect on way municipalities were organized to supply water (23).

42. In 1996, Bills 26 and 86 made it possible for municipalities to alter/abolish PUCs without assent of electorate (but approval of the Minister still necessary) (23).

43. Bill 107 (water and sewage transfer legislation). OCWA would no longer own facilities (24).

44. Possibility of privatization of water facilities raised during Bill 107 debate. But author says Bill 107 had limited impact on provincial-municipal relationships. OCWA was most affected by Bill 107, as it no longer was to own waterworks facilities (25).

45. Author says municipal restructuring and electricity reorganization have had greater impacts on local government than Bill 107. However, although water supply was not a concern of advocates of amalgamation, some municipal amalgamations have had the effect of moving the water supply functions from PUCs to the direct control of newly amalgamated municipalities (26).

46. Author notes reduction in PUCs from 124 in 1990 to 15 in 2001 (26).

47. OMWA said to still favour directly-elected water commissions because it considers this the best method of perpetuating efficient, self-financing public water-supply systems and of insuring that "profits" are not directed to other municipal activities (27).

48. Author notes that AMO wants municipalities to decide for themselves the future structure of water delivery services (27).

49. Author suggests that one option municipalities appear not to have considered is the establishment of municipally-owned companies to operate water-supply systems (27). (Is this the EPCOR model?)

50. Author notes that under current Ontario law, municipalities can contract out their water supply system operations - OCWA being the main contractor, though Azurix North America has a contract with Hamilton. Municipalities also can sell their systems to the private sector, though none have done so (28).

Conclusions

51. *Public Health.* Providing safe water is a municipal and provincial responsibility that is an acceptable form of double protection; not evidence of overlap and duplication (28).

52. *Financing.* Only issue is whether users should pay full cost of piped water. If so, there is no place for provincial subsidies for capital, etc. If small towns need financial help to facilitate capital borrowing that issue needs to be addressed separate and apart from concerns about water-supply systems. If municipalities are so overburdened with new costs they cannot take on the full capital costs of water-supply systems, the author suggests the answer is not to provide capital subsidies for water to make up for the failings of provincial policies in other sectors (28-29).

53. *Organizational Issues*. Author suggests public not in favour of selling their local water-supply systems. Even if they were, a privatized system still would require a comprehensive regulatory system. To extent that smaller municipalities cannot determine what is the best thing to do respecting the organization of their water supply, there could be justification for provincial rules requiring municipalities below a certain population level to contract the management and operation of their local system to OCWA, or an approved private company. This could be coupled by allowing larger municipalities to establish their own companies to operate their water-supply systems. (29).