

# Water Governance in Transition:

## Utility restructuring and demand management in Ontario

### Workshop Report

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## 1 INTRODUCTION

This report is a synopsis of the results of the ‘Water Governance in Transition: Utility Restructuring and Demand Management in Ontario’ workshop held April 13, 2007 at the Peter Wall Institute, UBC. The workshop is the first in a series of two workshops to be held in conjunction with the Infrastructure Canada funded project ‘Municipal Water Supply Infrastructure Governance in Canada: Uptake of water conservation technologies in the context of utility restructuring.’

Our research seeks to examine the relationship between changes in governance and practices of sustainable water management. Specifically we examine the implications of changes in municipal water supply utility governance for the uptake and application of water conservation programs. We focus on water conservation because it is generally regarded by water experts as a key element of sustainable water management, and has increasingly been applied across Canada in the past decade. However, the degree and approach to water conservation has varied significantly. Little research has been done on factors which influence the reasons for this variation. Our research emphasizes the ways in which governance models can both constrain and enable water conservation.

The first phase of the research entailed a pilot project in Ontario, which has witnessed some of the most significant changes in the water supply sector of any province in Canada over the past decade. We also chose to focus on one province in order to control for inter-provincial variability. This phase can be characterized as a phase of hypothesis-building. The second phase will entail a pan-Canadian analysis.

This workshop to which this report refers addressed issues arising from the first phase of the project. A workshop related to the second phase will be held in the spring of 2008. The ‘Water Governance in Transition’ workshop gathered 38 participants possessing extensive experience in or related to Canada’s municipal water supply sector or in a related sector. The breakdown of participants is shown in table 1 below.

	Ontario	British Columbia	Nova Scotia	Federal/National
<b>Municipal Governance</b>	3			
<b>Municipal Water Supply</b>	4	3		
<b>Academic/ Research</b>	2	9	1	
<b>Provincial/Federal Govmt</b>	3			1
<b>Professional Association</b>	4	1		1
<b>Union</b>	2			
<b>Conservation Authority</b>	2			
<b>Public Interest Group</b>	1			1
<b>Total</b>	<b>21</b>	<b>13</b>	<b>1</b>	<b>3</b>

**Table 1: Breakdown of workshop participants**

Prior to the workshop, a policy report stemming from the research conducted in the first phase of the ‘Municipal Water Supply Infrastructure Governance in Canada’ project was circulated among the participants. The policy report was used as the basis for the workshop discussions. The policy report will be revised in accordance with the workshop results presented in this report, as well as other feedback, and made available on through the project website.<sup>1</sup>

<sup>1</sup> <http://www.watergovernance.ca/Institute2/municipal/publications.htm>

The one-day workshop comprised two half-day plenary sessions. The first plenary focused on water efficiency and the second on restructuring water supply. Both plenary consisted of four parts. The plenary sessions opened with a presentation on the plenary theme for the purpose of stimulating discussion in the second part of the plenary. For the second part, the participants were divided into 6-breakout groups each dedicated to discussing a specific sub-topic and answering a related set of questions. The group membership, topics, and questions were pre-assigned. Through this exercise, we drew on the expertise present to explore specific topics that emerged through the research in phase 1. Third, each of the breakout groups presented the results of their discussions to the larger group. Fourth, the presentations were followed by an open discussion period among all participants.

The remainder of this report presents the responses of the breakout groups to their assigned questions. The presentation of the questions and answers follows the format in which the participants received and responded to their breakout group question sheets. The breakout groups were given one hour to discuss and prepare answers to the questions. Results from the breakout groups were presented and collated on the basis of the meeting minutes, and are summarized in the following sections. The workshop report concludes with a summary of research dissemination plans and future research directions.

### Box 1: Definitions

At this time, it is also worth highlighting several key terms that are pertinent to the discussions undertaken during the workshop.

- *Governance Models:* Governance is the process through which decisions are taken within or among organizations, including: who is involved, the assignment of responsibility, the prioritization of goals, and the rendering of accountability. In practice, governance is codified through an associated governance model, which includes ‘the agreements, procedures, conventions or policies that define who gets power, how decisions are taken and how accountability is rendered.’<sup>1</sup>
- *Business Models:* A primary feature of municipal water operations in relation to governance is the associated business model. Business models are closely related to governance models and the choice of business model will constrain choices for governance and vice versa. The adoption of a new business model requires a shift in governance, as it connotes new arrangements in ‘who does what’, new lines of accountability, incentives and often a new philosophy of operation.<sup>1</sup> Whereas governance reflects processes through which decisions are made and a governance model is a formula for achieving the desired principles of governance in decision-making, business models define arrangements for getting things done once decisions are taken. More specifically, a business model delineates features such as ownership, organizational structure, and the risks and responsibilities for the management of the organization and its improvement.
- *Restructuring:* In her work, Bakker defines restructuring as “Changes in “soft” management systems, or to the organizational and institutional dimensions of management systems. In simple terms, restructuring results in changes in who does what.”<sup>1</sup> The organizational and institutional dimensions refer to business and governance models. Restructuring involves changes in governance models (e.g. amalgamation, new legislation, etc.) and changes in business models (e.g. a municipal department, a PUC, etc.).

# PLENARY I - WATER EFFICIENCY

## GROUPS A1 - A3

### INCENTIVES AND CHALLENGES

#### 2 GROUP A1: MOTIVATIONS FOR EFFICIENCY PROGRAMS

##### 2.1 BACKGROUND

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The survey of Ontario water managers conducted by UBC's Program on Water Governance in 2005 indicated that the two most important drivers for water efficiency programs were extending infrastructural life span (i.e. delaying the construction of additional capacity in treatment plants and distribution systems) and long-term cost savings. Affordability of water services and water conservation were the least important drivers. In Toronto in 1990, they decided to call their program 'water efficiency' rather than 'water conservation' because they felt the latter would lack public buy-in.

##### 2.2 QUESTION 1: EFFICIENCY AND CONSERVATION

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*Do you agree that conservation is a relatively unimportant incentive for water efficiency programs? If so, why? If not, why not? What are the implications of its importance or lack thereof?*

1. *Discussing Conservation:* In general, there was resistance to the use of term "unimportant" with respect to conservation. Still, there was debate as to the degree to which conservation per se should be the primary factor in water efficiency efforts. Some members thought that conservation is a "small part of the bigger picture", while others viewed conservation as the "whole picture" [with respect to municipal water supply and demand management].
2. *Efficiency and Conservation:* The group agreed that water efficiency and water conservation are distinct issues. They found that "efficiency" can actually encourage more water use.<sup>2</sup> One member noted that the debate between conservation and efficiency goes to the heart of behavioural psychology. The reason being that conservation invokes the idea of "going without", i.e. that there may be suffering at the household level. They attributed resistance to conservation to the fact that we are creatures of habit, which are difficult to change. As such, efficiency is an easier sell. They noted that we can learn some lessons from industry on how to brand "our message" because they have a long history of selling products that people can neither afford nor need. *Public education* must play an important role in correcting misperceptions about conservation products and personal choices.
3. *Focus of Efforts:* The group noted that the residential sector is too frequently identified as the central problem, to the neglect of large-scale industrial usage such as the Alberta tar sands. Residential efforts associate conservation with personal responsibility. This is not suitable for addressing industrial use, however, as there is a lack of correlation between personal responsibility and really heavy (industrial) use.
4. *Pricing:* The group argued that while increasing prices often leads to an initial reduction in water consumption, in the medium term wages and salaries rise to meet the cost of living and the impact of price increases is reduced. As such, the group did not see pricing as an

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<sup>2</sup> See Question 2 for more on this issue.

effective long-term strategy. On the other hand, they argued that *progressive* economic signals are useful and that we need a progressive system so that lower income families aren't punished disproportionately.

5. *Regulatory and Jurisdictional Gaps*: The group noted that Canada lacks a ban on the sale of toilets that flush above six liters, while many other countries including the US have them. This is said to result in an excess of high-flush toilets on the Canadian market, raising questions with respect to trade agreements and NAFTA. They argued that political leadership is key for improving conservation and efficiency. The public is willing to buy into conservation, but lacks the political leadership to stimulate public buy-in at the national level. The government must act as the regulator and curb water allowances. In this scenario, however, jurisdictional issues arise. They referred to the different and overlapping responsibilities of the myriad of federal agencies, the provinces, and the municipalities as the "patchwork quilt."

## **2.3 QUESTION 2: SCARCITY RELATED DRIVERS**

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*How do shortage or scarcity-related drivers - e.g. a shortage of treatment plant capacity, lack of money, or scarcity of supply - affect the long-term potential of efficiency programs?*

1. *Defining Shortage*: The group questioned how one defines "shortage". Is shortage an ecological shortage, or is it a perceived limitation? One member made the point that a perceived limitation is the only thing that can bring a variety of stakeholders to the table. This can be the source of cooperation, not only conflict.
2. *Drivers*: The group found that drivers are very individualized. To make the point, they gave the example of high increases in gas prices and the fact that driving does not appear to have abated. That said, they also noted that a perceived crisis is an important driver because it can precipitate political will.
3. *Use of resources*: The group noted that infrastructure funding was not the best use of resources.
4. *Efficiency and Conservation*: There was lots of discussion about the differences between efficiency and conservation. They noted that using only the term "efficiency" might encourage more consumption and that, as such, we need other tools to limit use. They gave the example of Melbourne Australia and the trickle devices that they use.
5. *Myth of Abundance*: The group argued for the need to find creative solutions to address limits to growth and the myth of abundance, despite the "enormous challenges" involved. These would include meaningful public engagement.

## **3 GROUP A2: LEGISLATIVE AND REGULATORY CHALLENGES**

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### **3.1 BACKGROUND**

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Although water efficient fixtures are required in all new construction under Ontario's Plumbing Code, problems persist. For example, many 6-litre toilets do not flush at 6-litres, and 17-litre toilets are still sold in retail outlets. Water efficiency staff have lobbied both provincial and federal government bodies for better legislation, standards and labeling. In lieu of such regulatory support, several municipalities are working together to alleviate issues created by the lack of regulation - e.g. developing their own list of tested and approved 6-litre toilets.

### **3.2 QUESTION 1: GOVERNMENTAL REGULATION**

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*What are the incentives and disincentives for provincial and federal regulatory bodies in creating more appropriate standards and regulations? What is the most appropriate role for different levels of government to play with respect to promoting water efficiency?*

1. *Incentives*: The group found the most significant incentives to be political pressure and public opinion. They gave the supporting example of climate change and how Canadian governments are beginning to take action. Environmental objectives of governments were also listed as an incentive.
2. *Disincentives*: The group listed adhering to the status quo and the interests of other groups as disincentives. To support their argument, they gave the example of the new building code in Ontario, which they said had not been updated with the same objectives as the prior version. The reason they gave was that the code had been developed in accommodation with the many interests involved, particularly those of property development. While health and safety and some energy efficiency measures are included in the updated code, there is little in it that pertains to water.
3. *Legislation*: The group also drew attention to the new 'Places to Grow' legislation. They noted the uncertainty with respect to how municipalities will put that legislation into practice.
4. *Federal Role*: Given the current jurisdictional debate in Canada, the group argued that the federal government is not willing to be involved in a provincial jurisdiction. As such, they saw the biggest role for the federal government to be funding. They found that the federal government is providing funding, but that with some conditions attached. For example, with the federal gas tax, they require that the money be applied to projects that support environmental sustainability.
5. *Provincial Role*: The group found the province to possess both regulatory and financial capacity. For example, they argued that regulatory changes in Ontario are based on activities that municipalities were already implementing without regulations. The province, they argued, is well placed to advance such initiatives through regulation, policy and funding.
6. *Municipal Role*: In terms of municipalities, the group deemed them to be in charge of implementation and innovation and gave the source water protection plans as an example.

### **3.3 QUESTION 2: MUNICIPAL STAFF FILLING THE REGULATORY GAP**

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*What are the limitations and benefits to the current arrangement whereby municipal water efficiency staff work together inter-municipally and internationally to address the challenges created by insufficient legislation?*

The group noted that the question was unclear and that they were unaware of the examples provided. As such they elected to *truncate the question* to read "how does one address the challenges of limited legislation?"

*Municipalities will respond differently to legislative flexibility*: The group noted that where there is flexibility, some municipalities take the opportunity to innovate and move forward and others use a lack of provincial legislation as an excuse for inaction. With respect to municipal initiative in response to flexibility, they gave source protection and full cost pricing as examples. In terms of full cost pricing for water, they noted that we now have a legislative framework for full cost pricing but that it is somewhat unclear. Despite the lack of clarity, some municipalities have gone ahead and implemented it. Municipalities differ in their capacity to operate and innovate under flexibility or an unclear regulatory environment. Faced with legislative limitations, some will do the best they can, and some will do the least they can.

### **3.4 OTHER COMMENTS**

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The group did not feel equipped to answer the above questions directly, especially question 2 due to a lack of familiarity with the examples. Still, they provided valuable input to the issues.

Input to these issues can also be found in the responses of other groups, A1 and B1 are examples.

## 4 GROUP A3: WORKING WITHIN COMPETING UTILITY MANDATES

### 4.1 BACKGROUND

Interviews conducted by the Program on Water Governance reaffirmed that utilities face contradictory incentives vis-à-vis DSM. These have been documented in other research and include: potential reductions in revenue when consumption is reduced, and ‘demand hardening’ (i.e. demand flexibility is curtailed making it difficult to obtain new demand reductions in times of scarcity). Such issues make supply-side efficiencies attractive (e.g. leak detection and repair), but diminish incentives for adopting demand-side efficiencies (e.g. reducing domestic or industrial water use).

### 4.2 QUESTION 1: INCENTIVES AND DISINCENTIVES FOR UTILITIES

*What incentives and disincentives do utilities face in terms of water efficiency programming? Can these be reconciled or overcome? If not, why not? If so, how?*

They discussed the issue in terms of the differences between single and two-tier municipalities.

1. *Two-tier, the GVRD:* The GVRD sells bulk water to the area municipalities and recovers its costs through revenues from these sales. In the two-tier arrangement, the area municipalities are responsible for water conservation. The GVRD can cope with low water sales, although revenues fall short of projections in such instances. The problem is rather unpredictable water sales. To address unpredictability/variability, the GVRD has increased its operating reserve.
  - a. *Disincentive/Incentive:* In the GVRD, the more efficient you become, the higher the water rate is. This could be a disincentive because you pay the same although you use less. It could also be an incentive because rates have been too low.
  - b. *Incentive:* DSM builds trust and confidence of the public that water managers are doing the right things - that the water supply is well managed.
2. *Single-tier, Peel:* Peel follows a source-to-tap approach and has young infrastructure. It is one-tier and “that’s the way to go for DSM”.
  - a. *Incentives:*
    - i. Optimization of infrastructure use: this allows the deferral of capital expenses and reduces the costs of carrying water.
    - ii. Recognition and awards for the utility as well as those given to developers and residents for xeriscaping. They are “not just preaching”.
  - b. *Disincentives:*
    - i. The municipality has invested in infrastructure and has to pay it off.
    - ii. The overbuilding of one center created disincentives. Water use was reduced so much that plant could barely function. They had to back off of DSM.

Other issues:

3. *Amalgamation:* They also noted that amalgamation had resulted in municipalities paying for infrastructure that they did not build
4. *Climate resistive demands:* Climate resistive demands were seen to include lawn watering, agricultural uses, and industrial uses.

5. *Summary:* The GVRD is selling water to the municipalities and needs to predict how much water they are going to be selling in order to meet demand. As demand goes down, they need to increase the price. The GVRD does not address demand reductions in particular. The fact that building infrastructure requires a revenue stream was noted as a disincentive. As is the case where new utilities (post-amalgamation) have to manage with old infrastructure. Some of these disincentives are dealt with by building reserves. These issues are more complicated when more than one municipality is involved.

#### **4.3 QUESTION 2: DSM AND 'BUSINESS-LIKE' MANAGEMENT**

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*In what ways do DSM programs reflect 'business-like' management principles? In what ways do they challenge such approaches? What does this indicate in terms of investment in DSM programs?*

1. *Business like management principles:* The group questioned whether their water utilities were in fact using such principles. They came to the conclusion that although they are not constrained in the way that business would be, they do use cost benefit analysis to implement revenue-requiring programs.
2. *Water Efficiency:* The group found that business is driven by the desire to make money and that, as such; water efficiency reflects a business philosophy of doing the right thing.
3. *Leak Detection:* Cost benefit studies show that leak reduction is more cost effective than some other approaches. However, when rates are really low (e.g. Peel) leak reduction is not cost effective. On the other hand, in the GVRD leak reduction is very cost effective for the municipalities that pay for it.

#### **4.4 QUESTION 3: ALLEVIATING UTILITY CONCERNS VIS-À-VIS DSM**

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*What messages are important in terms of alleviating the financial and other concerns that utilities may have in terms of DSM?*

1. *Doing the right thing:* The group stated that municipal politicians and staff all want to be seen to be doing the right thing for the environment. They feel that this is a time of cultural shift, whereby public acceptance of environmental issues is growing by leaps and bounds. Governments want to be seen as being leaders in the field. They want to present themselves as being sustainable water stewards, and as being efficient.
2. *Controlling costs to the taxpayer:* Governments can argue that through DSM they are controlling costs to the taxpayer.
3. *Good for the environment*
4. *Leadership:* The argued that politicians and staff all like to be the best, to be at the front of the pack, implementing best practices.
5. *Continuous improvement:* It meets an ethic of continuous improvement, rather than sitting on one's laurels.
6. *Already Occurring:* They argued that because DSM was already being implemented through Ontario legislation, that utilities and governments should be less resistant.

## GROUPS B1-B3

### METHODS OF MANAGING DEMAND

#### 5 GROUP B1: THE LOW-HANGING FRUIT & OTHER OPTIONS

##### 5.1 BACKGROUND

The survey of Ontario water managers on water efficiency programs conducted by UBC's Program on Water Governance in 2005 indicated that retrofit programs (e.g. low flow shower heads and faucets) are least frequently implemented, and considered the most difficult to implement. The data also indicate that conservation and affordability of services are relatively low priorities for utilities, and that retrofit programs are favoured by those who also favour sustainability and affordability. Finally, the survey also indicated that public education programs displayed the largest discrepancy between their level of implementation and the degree to which it was thought they ought to be implemented.

##### 5.2 QUESTION 1: RETROFIT PROGRAMS - CHALLENGES

*To what degree do you think that the low interest in retrofit programs reflects the fact that they are associated with addressing issues that are not the primary foci of water utilities (e.g. sustainability and affordability)? To what degree do you see the human element in retrofit programs (e.g. the homeowner must maintain the device) as a reason?*

*In brief, retrofits are not the primary foci of utilities for the reasons below:*

1. Lack of skill set match between engineering and the tasks required.
2. Lack of funding.
3. The public needs to know what works, which is not always evident.
4. Utility jurisdictional authority often ends at the property line.
5. Municipalities often do not have control of building codes.
6. There is no clear mandate for public education and there are many stakeholders requiring different educational approaches.
7. There is no legislation to limit the sale of wasteful products, making new efficient fixtures expensive.
8. Performance of fixtures is important. There were problems with the first generation. The resultant stigma will take time to overcome.

*In detail*

1. *Skill-set Match:* The group argued that part of the problem with respect to retrofits was the educational aspect of pursuing their implementation. As such, the reason why a lot of water utilities do not engage in such activities is that the engineers and technical staff who operate them are not trained in public education.
2. *Utility Jurisdiction:* Utility jurisdiction ends at the property line. Mandating change of fixtures in homes is an issue of plumbing codes that must be addressed at the provincial or federal level. These are the levels of government that have the authority to enforce the codes and to standardize requirements.
3. *Public Education:* The group noted that they kept getting caught up on the issue of education. They discussed conservation and efficiency, and how sometimes the messages conflict.<sup>3</sup>
4. *Legislation:* The group discussed legislation prohibiting the use of wasteful products within the system. In Vancouver in 1994 legislation was made to require low flow toilets and

<sup>3</sup> For more on public education, see question 3 below.

showerheads. Still, more wasteful products remain available. Regulations to mandate absence of something e.g. old toilets, must therefore be made at higher levels of government.

5. *Poorly Performing Devices*: The first generation of low-flow toilets did not work well, leading to the development of Ontario performance standards. People have so many choices in terms of fixtures and appliances. From a municipal standpoint, the government cannot interfere in private business by telling residents where to purchase their fixtures, i.e. it cannot say, “you should buy from this company, but not others”.
6. *Personal Home Retrofitting*: The group gave three reasons for which people retrofit: conservation awareness, financial savings, and aesthetics or trendiness. People retrofit themselves because they are (1) ecologically minded or (2) because of the “trendiness factor”, they see retrofitting on television and in magazines and then try to replicate it.
7. *Adopting Change*: For people to adopt change, the cost should be low and the ease of adaptation should be high.

### **5.3 QUESTION 2: RETROFIT PROGRAMS - DIFFERENCES**

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*Certain retrofit programs like the ‘spray washer valve replacement’ have produced strong results for low investment. What are the key differences between retrofit programs that can make them more or less attractive to utilities?*

Why some programs work:

1. *Cost effectiveness*: Cost effectiveness was deemed a big issue for utilities. Utilities asked to be businesses and, as such, loss programs are financially questionable.
2. *Subsidized products*: Utilities often subsidized efficient products as part of their water efficiency strategies. This aids their uptake.
3. *Ease*: The group deemed success to be dependent upon the financial incentive (above) and the ease of implementation. Some products require lots of ‘handy’ skills, and some do not. The easier a product is to install, the more it will be taken up.

Challenges:

1. *Triple bottom line*: The group questioned whether the triple bottom line concept could be put in dollar terms. And, if so, how one can ascribe dollar values to the social and environmental issues.

### **5.4 QUESTION 3: PUBLIC EDUCATION**

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*What are some reasons for the relatively low implementation of public education programs? How can these be addressed?*

Some of the issues with respect to public education were identified as:

1. *Lack of Clear Mandates for Education*: It is unclear who has a mandate for education and what the message is. Many groups have funding from different levels of government.
2. *Plethora of Stakeholder Groups*: There is a fragmentation of the market in terms of the sources of information, culture, geography, and audience. We may need different ways of communicating the message to different groups.
3. *Business-like Management*: The fact that the nature of “effectiveness” has changed because utilities are now often asked to behave as businesses. As such, “loss” programs, like public education, are difficult to make a case for.
4. *Different Ideas about Conservation*: There are many private groups with different ideas about conservation.
5. *Measuring Success*: It is unclear how to measure success of education programmes. Lower meter readings were suggested, but were also considered inadequate.

## 6 GROUP B2: METERING

### 6.1 BACKGROUND

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The research conducted by UBC's Program on Water Governance (survey of Ontario water managers in 2005, and in-depth interviews) indicates that there are three primary motivations for metering: economic equity (i.e. people pay for what they consume); data collection (e.g. knowing how much water that is going into the distribution system is getting to consumers), and demand reduction. Several issues with respect to meter reading were identified, most significantly: (1) meter readings are often estimated based on prior consumption because of inconveniences that arise when reading meters; (2) customers may be billed quarterly and therefore do not receive a price signal in a way that they can readily associate with their consumption; and (3) when remote reading is enabled through the installation of telematic meters, the customer contact that had enabled workers to address abnormalities in the readings is lost.

### 6.2 QUESTION 1: MOTIVATIONS

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*How would you prioritize these motivations, in order of importance? Why? Are there other reasons that metering might prove important? What are they?*

1. *On Prioritizing Motivations:* The group found that they had a difficult time prioritizing and that prioritization was the wrong approach to take. This is because the motivations are all connected: "It's not a 1, 2, 3 type thing; it is more of a triangle."
2. *Primary Motivations:* The group listed economic equity, data collection, and demand reduction as the primary motivations.
3. *Other Motivations:* Water metering is important for the allocation of costs in multi-utility operations, and for the ability to impose variable block rates based on high consumption, and seasonal rate increases in times of scarcity. It is also important for public education regarding consumption and to engender user buy-in with respect to rate increases.
4. *Economic Equity:* In terms of economic equity, the group deemed "user pay" to be an important aspect of water metering. Metering sends a signal to the customer, that the user pays. Somewhat jokingly, they noted that people don't want a water meter; they want their neighbour to have one. Still, they saw strong public support for water metering in terms of economic equity. Metering addresses a desire to distinguish between low and high use households such that they pay according to their consumption.
5. *Challenge - Value of Water:* The group agreed that, in general, people do not value water because, having no concept of its value, they are unable to place a value upon it.
6. *Limitation:* Metering does not result in water demand reduction. Metering *and* significant prices increases will result in demand reduction.
7. *Future Outlook:*
  - a. Currently historical data is difficult. In the future smart meters will be used.
  - b. In a mature DSM program, the customer is doing the managing not the utility.

### 6.3 QUESTION 2: MAXIMIZING THE BENEFITS OF METERS

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*What are some key issues with respect to getting the most out of meters once they have been installed? How might these challenges be addressed?*

1. *Purpose:* Water metering is a tool to get somewhere, not an end in itself.

2. *Accuracy*: The group noted that it has been difficult to collect data from water meters because they're mechanical and not electrical. As the mechanical meters age, they read lower: "You could be chasing water losses, but really be chasing ghosts."
3. *Smart Meters and Education*: The implementation of 'smart meters', as in the electric industry, would allow utilities to go to time of use information. The challenge is to translate that into consumer education.
4. *Metering, Education and Valuing Water*: They noted that we have not allowed customers to access their own information. This inhibits their ability to value water. They argued that if we can provide better data from metering - e.g. how much does it cost to water a lawn for one hour - then maybe customers would exhibit greater concern.
5. *Metering and Pricing*: With water meter data, the pricing has to reflect the message we want to send to the customer. If I'm going to water my lawn at 6pm in the summertime, I should have to pay more for that. In addition, the link between rates and water meters must account for the fact that about 80% of costs are fixed and 20% are variable on quantity. However, we want to make a 20% fixed rate with 80% flexibility.
6. *Increasing Rates*: If you need to increase rates, you have to explain to people why rates are going up even though their use is going down.
7. *Challenges with Automated Meters*: The group stated that when you read remotely, you lose contact with the customer. In this regard, water theft is an issue. Moreover, the opportunity to educate customers face to face when you find a problem is lost. They stated that they need staff to notify customers about leaks so that customers are doing the management rather than the utility - "but we're really far from that."
8. *Needs*: The group argued that a maintenance program for meters and real time frequent water meters, even hourly meter readings, were necessary.
9. *Future*: They stated that we have to ask where we want to go with water metering.

#### *How to get the most out of meters?*

1. Need staff resources to inspect meters (residential, commercial and industrial), and to check for bypasses.
2. Need staff to notify customers of leaks, help with dialogue with customers, and with public education.
3. Need a meter maintenance program.
4. Need real time or frequent meter reading to match billing with accurate and timely data rather than estimates.
5. Smart meters could allow for hourly readings, this would demand new and create ways of best utilizing the extensive new data.

## **7 GROUP B3: PRICING**

### **7.1 BACKGROUND**

Metering and pricing structures can be combined to address economic equity (pay for what you use) and/or social equity (equity of access). The need to implement programs for low-income users demonstrates, to some degree, that social equity is less addressed through these initiatives than economic equity. Moreover, the research conducted by UBC's Program on Water Governance (survey of Ontario water managers in 2005, and in-depth interviews) indicated that most respondents feel that social equity should be addressed by governments and not by utilities.

## **7.2 QUESTION 1: KEY PURPOSES**

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*What should be the key purposes of pricing, what goals should it be intended to achieve?*

1. *Cost Recovery:* Prices should be sufficient to recover the costs. Water systems should be self-financing.
2. *Full Cost Accounting:* The group argued that we need to ensure that all of the costs of water are being covered. These include infrastructure, ecological integrity (externalities), infrastructure debt retirement, an R&D or scientific component, and a regulatory component. Examples of externalities that must be included are source protection, ecological damage and restoration, and ensuring that polluters pay for degrading water. The R&D or scientific component refers to the need to address scientific deficits, e.g. knowledge about ground and surface water, their interaction, and groundwater renewability. These costs should be included in rates.
3. *DSM and Pricing:* The group did not think that DSM could be affected by pricing because of the relatively low price of water. Although they acknowledged that it could affect industrial users, they did not see the impact as being very significant. They argued that pricing must be very visible.

## **7.3 QUESTION 2: PRICING STRUCTURES**

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*How are these goals best reflected in pricing structures?*

1. *Pricing Structure:* They thought that the pricing structure should have two components: 1) fixed costs, and 2) consumption.
2. *Important Elements:* They noted the importance of having increasing block rate structures, and the potential of using peak pricing to encourage conservation.
3. *Ring-fencing:* They noted the importance of “ring-fencing” so that water revenue does not get used for other purposes.
4. *Couple Pricing with Other Programs:* Pricing should be coupled with by-laws - e.g. lawn water restrictions, and laws requiring landlords to retrofit their buildings.

## **7.4 QUESTION 3: LOW-INCOME AND INSTITUTIONAL USERS**

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*How can the needs of low-income and institutional (e.g. hospitals and schools) users best be addressed?*

1. *Low-income Users:* The group discussed the needs of low-income users. Noting that there are affordability issues, they argued that income policies (rather than utility rates) should be amended to meet the needs of low-income users. They also suggested that tenants and low-income users need to be aware of and educated as to the portion of their rent that goes to water. Overall, there should be socially equitable access.
2. *Institutional Users:* The group concurred that institutions should not include other municipal services like parks. With respect to hospitals and schools, they agreed that these are public goods that are best funded more broadly than through user rates, such as through the tax base.
3. *Firefighting:* The group argued that costs associated with firefighting serve the broader public good and should be funded through the property tax base rather than user rates (e.g., firefighting requires additional capacity such as larger water mains).

## **7.5 OTHER COMMENTS**

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Affordable, available efficient appliances and efficiency devices may need regulatory impetus

# PLENARY II - RESTRUCTURING WATER SUPPLY

## GROUPS C1-C3 DRIVERS, CHALLENGES AND TRENDS

### 8 GROUP C1: THE WORKPLACE 1

#### 8.1 BACKGROUND

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The most active groups trying to stop municipal water supply restructuring<sup>4</sup> in Ontario have been unions, particularly CUPE, and environmental groups. These groups have generally worked together in coalitions called ‘water watchers’.

#### 8.2 QUESTIONS 1 AND 2: EFFECT ON WORKPLACE

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1) *What factors make restructuring unattractive to unions? How is the workplace affected (type of work, mobility and flexibility, salary, job security)?*

2) *What are the benefits and drawbacks of these changes for unionized employees?*

The group noted that context was needed in order to appropriately interpret and address the questions. Their comments are provided under the heading ‘Other Comments: Contextualizing the Questions’ below.

The group addressed questions 1 and 2 jointly. They listed the following five effects of restructuring on the workplace along with their benefits and drawbacks from the perspective of unionized employees.

1. *Automation and Contracting Out:* If restructuring leads to more automation or contracting out, concerns about job security arise. The group gave the example of metering which can result in job loss when a utility goes to automated readings.
2. *Experiences of Older and Younger Workers:* The group described a dichotomy between the impacts of restructuring on older and younger workers. For example “cross-training”, which can lead to higher salaries for younger workers (especially) can also mean “intensification” and fewer jobs overall. In this way, “cross-training” encourages early retirements particularly due to concerns with testing and liability.
3. *Transfers:* Transferring workers to a position or location with different bargaining unit can cause unease.
4. *Mobility:* The group argued that amalgamation has brought more opportunities for mobility outside of organizations as well as organizational “flattening” in some cases reducing intra-organizational mobility. In short, there are more opportunities for mobility outside of organizations, but fewer inside of them.
5. *Liability and Responsibility:* The group stated that among the effects of organizational flattening were that liability and responsibility are moved downward. With mid-level

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<sup>4</sup> Author comment: In groups C1 and C2 the background refers to water watch groups contesting restructuring. As was pointed out in the workshop, this should more specifically refer to alternative service delivery that involves arm’s length models and amalgamation rather than restructuring.

management gone, some of the responsibility and liability that they carried is transferred to unionized employees. This can be a concern for liability and with respect to doing someone else's work instead of your own.

### **8.3 QUESTION 3: BENEFITS AND DRAWBACKS FOR UTILITY MANAGEMENT**

*What are the benefits and drawbacks of these changes from the perspective of those managing water utilities?*

*Benefits:*

1. Economies of scale.
2. More highly educated work force.
3. Cost savings with respect to administration.
4. More flexibility in arranging shifts.
5. Better union relations because employees see more opportunities.

*Drawbacks:*

1. More highly educated workers are more attractive for poaching.
2. Northern areas less likely to have economies of scale.
3. Management job loss.
4. Difficulty of consolidating previously independent systems.
5. Interdepartmental rivalry.
6. Need for better accounting procedures.
7. Loss of scope efficiencies.

### **8.4 OTHER COMMENTS: CONTEXTUALIZING THE QUESTIONS**

With respect to the background provided to the questions as well as the questions themselves, the group wanted to provide the following information to clarify the circumstances in Ontario.

1. *Union Involvement:* The group stated that CUPE has been involved in a number of ways with respect to restructuring. The group noted that CUPE involvement is not only determined by whether or not it represents the employees in the particular water operation. It is also a policy issue for CUPE.
2. *Restructuring:* Where there is massive restructuring, all employees, not just union members, get uncomfortable and worried about their jobs.
3. *Representing Employees:* CUPE has been involved in cases where it is the union representing employees and where it has not. They stated that involvement of unions in Water Watch committees has not been solely for self-concern. They gave the examples of the GVRD treatment plant and the Hamilton water and sewage treatment plants. In neither of those cases did CUPE represent employees.
4. *Issues of Concern:* The group noted that CUPE has raised public policy issues as well as issues related to the impact of restructuring on employees. Restructuring in Ontario's municipal water and wastewater operations in the past few years has largely been brought about by provincially-mandated municipal amalgamations so the group focussed on the impacts of amalgamation. The group pointed out that not all restructuring is related to governance, but may be about operational reorganization. Restructuring may or may not raise concerns for the union, depending on the impact on employees and the public policy implications.

5. *Other Unions*: The group noted that CUPE is not the only union in water and wastewater, although it has certainly been the most active. As such, other unions need to be considered.

## 9 GROUP C2: THE WORKPLACE 2

### 9.1 BACKGROUND

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The most active groups trying to stop municipal water supply restructuring<sup>5</sup> in Ontario have been unions, particularly CUPE, and environmental groups. These groups have generally worked together in coalitions called water watchers. In addition to challenges stemming from restructuring, research participants discussed a shortage of trained operators, increased training and certification requirements, changing pay scales and new liabilities for operators stemming from new legislation among others.

### 9.2 QUESTION 1: WORKPLACE CHANGES

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*How is the workplace changing irrespective of restructuring?*

The group described the following ways in which the workplace is changing:

1. *Legislation*: The levels and distribution of responsibility have changed with the new legislation.
2. *Training*: Training has become much more demanding and “extremely intense”.
3. *Hierarchy and Classification Change*: The group noted that water and wastewater operators used to be at the bottom of the pay scale and now they are at the top.
4. *Technical and Process Changes*: There is a higher level of automation.
5. *Public Scrutiny*: Public scrutiny has increased.
6. *Third Party Accountability*: Third party accountability is very different from what it was 5-10 years ago. There has been a significant increase in inspections.
7. *Demographics*: There is a gap in the industry. Just trying to find people - let alone certify them - will be a real problem.

### 9.3 QUESTION 2: IMPACT OF LEGISLATION

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*What is the impact of new legislation?*

To respond to this question, the group focused on Regulation 128 (2004) “Certification of Drinking Water Operators and Water Quality Analysis” under the Safe Drinking Water Act (2002), and on Regulation 129 (2004) “Licensing of Sewage Works Operators” under the Ontario Water Resources Act (1990). This legislation can be found on the Ontario Ministry of Environment website at: <http://www.ene.gov.on.ca/envision/water/sdwa/legislation.htm>.

1. *Grandparenting*: Grandparenting has been discontinued in municipal water supply. Prior to O.Reg 128, water operators could get a grandparenting certificate. As of May 2006, operators lost their license completely if they had not yet written their exam.
2. *Uneven Between Water and Wastewater*: Grandparenting is still available in wastewater, while you require a written certificate in water.
3. *Training Cost Increases*: Training costs have increased. Training has also become more formalized, whereas in the past training was somewhat fragmented.

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<sup>5</sup> Author comment: In groups C1 and C2 the background refers to water watch groups contesting restructuring. As was pointed out in the workshop, this should more specifically refer to alternative service delivery that involves arm’s length models and amalgamation rather than restructuring.

4. *Training Specialist on Staff:* For most certification and testing, a training specialist is required. Initially, utilities had to go to a private training specialist to get the requisite training.
5. *Job Classes and Evaluations:* There are joint job education and joint job evaluations. Consequently, there are specific job requirements and this is deemed to be a surrogate for adding value to the business. On the other hand, the new requirements for which jobs require certification and training have turned job classes upside down.
6. *Marketability of Operators:* Marketability of operators is excellent. Operators go to the highest bidder. Operator poaching is an issue.
7. *Financial Incentives:* Financial incentives are now in place to attract operators to the business.
8. *From a Job to a Career:* In the past, water and wastewater operation was viewed as a job. That has changed. Water operation has gone from a job to a career. This has translated into some very talented people being attracted to the field.

### **9.4 QUESTION 3: CHALLENGES FOR MANAGEMENT AND EMPLOYEES**

*What challenges do such transitions present for utility management and unionized employees?*

The group detailed the following challenges:

1. *Licensing Requirements:* To become a licensed operator, you must be out of school, enter into the business, and within the first six months you have to have written your level 1 water test or you'll lose your job. After 12-months, you have to write your level 2 exam. As such, the utilities need people who have a sense of commitment to their career. For the most part, this is the case and people write their exams within 3-4 months.
2. *Licensed Operators versus Non-licensed Manager:* This situation alters the dynamics between operators and management.
3. *Training:* It is a challenge to obtain appropriate training of good quality.
4. *Attracting New People:* The group noted that they need to get more people into the business.
5. *Communication:* More communication between labour and management is needed. As more responsibility and accountability is driven down to the operators, operators need more understanding of how things are done.
6. *Other Certifications:* A non-operating operator certificate is needed.
7. *Level IV Requirements Onerous:* Level IV operator educational requirements are onerous. Level IV operator requirements include high school education, 4 years of post-secondary education, 4-5 years of field experience, as well as exams all the way through. To get people to that level requires a LOT of training. There is a question as to whether this too onerous. The group noted a fear, that if level IV requirements are not reduced, they will not get many level IV operators in the business.
8. *Certification of More Experienced Workers:* The group stated that because you can only get into the process of training and certification by coming in at the 'ground floor', there is a no way for someone older and higher up to get certified. This is a real problem.
9. *Loss of Expertise:* The group argued that in order to cope with the loss of expertise (stemming from point 8 and amalgamation), there was greater need for the documentation of innovation and best practices. Examples given were programs like InfraGuide and the Ontario Centre for Municipal Best Practices.
10. *Work Stoppage:* Under work stoppage, the potential for non-compliance increases. In such a situation, utilities are in a difficult position because they are non-compliant with the regulations.

11. *Water an Essential Service?* Following from point 7, the group noted that some services, like hospitals, are considered essential. They are thinking about whether water should also be classified as an essential service.
12. *Succession Planning:* The group stated that all of their points lead to a single issue. This is that you really have to 'grow your own' by attracting good people into the business and having them grow within your organization.

## **9.5 OTHER COMMENTS**

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The group noted that restructuring was a poor choice of word in the background. This is because unions are not against restructuring per se. Rather, Water Watch groups have contested contracting out of water operations, devolution of water operations to arm's length bodies, and proposals for privatization and public-private partnerships.

## **10 GROUP C3: ENVIRONMENTAL GROUPS**

### **10.1 BACKGROUND**

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The most active groups trying to stop municipal water supply restructuring in Ontario have been unions, particularly CUPE, and environmental groups. Environmental groups express the following concerns with respect to restructuring: arm's length management models may lead to privatization, accountability and transparency are reduced under arm's length models, and such models are inimical to environmental protection and water conservation.

### **10.2 QUESTION 1: CONCERNS OF ENVIRONMENTAL GROUPS**

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*What are the key concerns of environmental groups with respect to restructuring?*

1. *Public Participation:* The group was concerned with the potential loss of public participation. They noted that public participation has been active in public policy regarding water and wastewater pricing, conservation, restoration, environmental protection, allocation and planning. They questioned what would happen to all of these processes if the utility went "AWOL".
2. *Disruption of Policy Advancement:* The group argued that restructuring disrupts ongoing efforts towards policy improvements. They gave the examples of the public working with Toronto and Hamilton to address the issue of pollution from their WWTPs.
3. *Accountability and Transparency:* Related to point 1, the group noted that through the loss of public participation, the accountability of elected politicians and transparency of decision making would suffer.
4. *Disincentive for Conservation:* People felt funds that were badly needed for improving water services and addressing externalities would be spent on corporate offices and dividends to shareholders, to the neglect of conservation.
5. *Institutional Memory:* The group was concerned with the loss of institutional memory that could result from a new organization managing the water supply that lacks a history with the locality.
6. *Geographical Distance:* The new provider could be very far removed geographically from the municipality. They gave the example of Hamilton's various operating companies during its operations and maintenance contract with a private company from 1994-2004.
7. *Local Knowledge:* Related to points 4 and 5, the group discussed the potential for a loss or lack of local knowledge and familiarity with the system.
8. *Volatile Private Industry:* Private water providers are subject to takeovers and bankruptcies, making the industry volatile.

### **10.3 QUESTION 2: ENVIRONMENTAL AND UNION CONCERNS - DIFFERENCES**

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*How do the concerns of environmental groups differ from those of unions? How are they the same?*

1. *Positive Experiences:* The group began by noting the positive outcomes that have come from the work of unions on water supply governance issues.
  - a. *Incredible Resource:* They saw unions as having provided an incredible resource to this work. In particular, unions have provided a remarkable capacity for research by their staff, and they also have had the capacity to take the research globally.
  - b. *Brakes on Privatization:* The group credited union work for having put the brakes on the movement for privatization.
2. *Union Interests:* The group articulated that people working for unions are people. They want jobs with dignity and they want jobs that are not harmful on the environment.
3. *Some Difference in Priorities:* The group stated that although priorities differ somewhat, there is a high degree of concurrence. As such, environmental groups can increasingly count on unions to work with them in coalitions.
4. *Crosscutting Issues:* The group saw the issues related to water supply governance as crosscutting. Public interest groups are responding by always working in coalitions that typically involve health, labour, and environmental groups. They noted that they see these coalitions growing daily and that “nobody works alone these days”.

### **10.4 QUESTION 3: CHALLENGES TO ENVIRONMENTAL PROTECTION**

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*What key challenges (if any) do arm's length governance models (e.g. a PUC, a board, or a municipal corporation) pose to environmental protection?*

The group detailed the following issues:

1. *Municipal Corporations:* The group argued that while different models have different levels of public accountability, municipal corporations have little or no accountability. This is because they lack integration with other municipal departments, including planning, parks, environment, and health departments.
2. *Distance from the Health Authority:* Related to point 1, the group argued that when you distance a utility from health, you are taking away accountability. The issue of accountability arises even though the Ministry of Health is relatively responsible in Ontario for water safety.
3. *PUC Model:* The group stated that the PUC model might be more publicly accountable in the case where the board is elected as was (but is no longer) the case in Ontario.
4. *Municipal Liability:* With arm's length business models, the municipality retains liability but has less or no control over operations.
5. *P3s:* They observed that P3s have the potential for conflicts of interest to arise.
6. *Cost to the Public:* Related to points 4 and 5, they recalled the sewage spill in Hamilton that had to be cleaned up by the city under the management contract to a private sector operator. There are repeated costs to the public purse for such occurrences.
7. *Knowledge of Consultants:* There was recognition that some consultants have more knowledge of best practices, and that municipalities can do also manage water services badly. There is a need for knowledge of best practices and technical innovation that consultants can provide. Municipalities can be “bad actors” and not disclose water decisions - e.g. Hamilton. That is, it works both ways. They hoped that repetition of prior negative experiences can be avoided.

## **10.5 OTHER COMMENTS**

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The group questioned who qualifies as an environmental group, for example are the Conservation Authorities conservation groups?

# GROUPS D1-D3

## GOVERNANCE: THE ROLE OF POLITICS

### 11 GROUP D1: SEEKING DISTANCE FROM THE MUNICIPALITY

#### 11.1 BACKGROUND

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In municipal water supply restructuring in Ontario, models have been promoted which create distance between the utility and the municipality. Reasons given for distance from councils include: use of the water rate to subsidize the property tax, the length of time to approve contracts, and that councils exhibit ward-based political interests that are not to the general benefit of the water utility (e.g. in not raising prices).

Such models also enable water utilities to purchase supporting services (e.g. human resources, financing and purchasing) from outside of the municipal corporation. Reasons given for seeking independence from municipal services include that: the services are designed for the general needs of the municipality and are therefore ill suited to the particular requirements of water utilities, and that they are less efficient than they should be because they do not have to compete for customers.

#### 11.2 QUESTION 1: PRIMARY REASONS FOR SEEKING DISTANCE

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*What are the primary reasons for wanting to reduce the influence of municipal councils? Can these issues be addressed in other ways? If so, how? If not, why not?*

1. *Broad-Narrow Debate:* The group saw the question as part of a wider debate on whether water is part of broader municipal responsibilities or if it is “simply water”, i.e. a strictly operational issue. They were unable to come to a conclusion on which approach should be adopted.
2. *Councils are Accountable:* The group observed that councils are legally and politically accountable. They are responsible under the legislation. This cannot be reduced. Councils cannot simply be dispensed with.
3. *Communication:* The group argued that a lot of communication between technical and political levels is needed in water supply. This is because councils have new requirements to meet, they are legally and politically responsible, and they need to understand the technical issues in plain English.
4. *Delegation and Documentation:* The group argued that councils have to focus on policy issues and delegate the rest. There needs to be operational delegation from councils. They should retain only clear policy decisions, and the need to clearly document all of their activities.

#### 11.3 QUESTION 2: MUNICIPAL SERVICES PURCHASING

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*What are the primary reasons for wanting autonomy from having to purchase service (e.g. human resources) from the municipality? What are the benefits and drawbacks for the utility and the municipality? Can these issues be addressed in other ways? If so, how? If not, why not?*

With respect to the question, the group noted the following addendums:

1. *Case-by-Case:* Each municipality is a unique case, and so decisions with respect to corporate services should be made on a case-by-case basis. Changes are justified by improving efficiency within the particular municipality. This is true of purchasing, for example.

2. *Not Just a Water Issue*: The above does not pertain solely to water, rather it relates to all other municipal services as well.

By way of answer, the group observed the following:

3. *Responsiveness of Centralized Systems*: Centralized systems may not be responsive to the needs of utilities. For example, it takes months and months to go through a staffing process. If you can't find a certified operator, this issue of potential fines arises. Councils and technical people need to communicate effectively to avoid such situations.

## **12 GROUP D2: THE POLITICAL ROLE IN WATER SUPPLY 1**

### **12.1 BACKGROUND**

In municipal water supply restructuring in Ontario, models have been promoted which reduce the influence of municipal councils with respect to water supply. These models include, for example, municipal boards and municipal corporations.

### **12.2 QUESTION 1: ROLE OF MUNICIPAL POLITICIANS TRADITIONALLY**

*What has been the role of municipal politicians in water supply traditionally? What are the positive and negative aspects of these roles? How has this changed over time, if at all?*

1. *Matching Risk with Accountability*: The group discussed the background statement, and stated that the intent was not to reduce political influence but rather to locate accountability at levels that were commensurate with the risks. That is, the objective was to find levels of operation where the people with knowledge are those that are accountable.
2. *Two Classes of Systems*: Large cities are more able to 'step up' to the challenges than smaller municipalities. As such, there are two classes of systems. The Walkerton water quality tragedy highlighted this gap.
3. *Provincial Response*: In response to the gap between the classes of systems, Ontario has stepped in with more micro-management.
4. *Summary*: It is not so much to reduce political control, but it is rather about improving accountability.

### **12.3 QUESTIONS 2 & 3: DECISIONS FOR POLITICIANS AND TECHNICAL EXPERTS**

*2) What elements of municipal water services provision should be decided explicitly through democratic politics? That is, through debate by elected municipal councils or provincial governments?*

*3) What elements of municipal water services provision should be decided explicitly by technical experts, such as engineers, economists and others?*

1. *Decisions for Politicians*: The group argued that politicians should be responsible for policy decisions. These include: development, land use planning, business planning, and source protection issues. They should also hold the legal liability attached to the board members of a water system. This prevents decision-making by people who are not accountable to the public.
2. *Decisions for Technical Experts*: Professionals, on the other hand, should advise, recommend and educate the decision makers.
3. *Issues*: There are some breaks between municipal and provincial laws. One example is that of urban infrastructure on agricultural land. There, water comes under the provincial agricultural act.

## 13 GROUP D3: THE POLITICAL ROLE IN WATER SUPPLY 2

### 13.1 BACKGROUND

In terms of water efficiency programs, municipal councils have played three types of roles. First, they have promoted efficiency and conservation (e.g. Metro Toronto Council catalyzed Toronto's first water efficiency programs). Second, they have mediated the effect of some programs on the consumer (e.g. by reducing the degree of punitive price increases for unmetered residents in Hamilton). Third, councils have hindered progress on efficiency (e.g. by refusing to allow price increases or outdoor water use bylaws in some municipalities).

### 13.2 QUESTION 1: COUNCILS AND WATER EFFICIENCY

*What incentives and disincentives do councils face in terms of water efficiency programming? Can these be reconciled or overcome? If not, why not? If so, how?*

	Incentives	Disincentives	Reconciling the disincentives
1	Shortage of supply which limits development potential.	Perception that water is cheap and abundant.	Price increases: we need to brand water as a completely different commodity and we need to cast the myth of abundance in the contexts of the watershed and climate change.
2	Avoid or delay capital investment for new water or sewage treatment plants and infrastructure.	Complexity of the issues is beyond the knowledge and experience of elected officials.	Increase the level of trust between experts and politicians, and provide opportunities for technical training on general level.
3	Reduce operating costs (especially electricity).	Public does not understand and/or is not concerned.	Public education: but whose responsibility public education - is it provincial or local/regional?
4	Political will: sometimes it is ideological; some municipalities are committed to efficiency.	Public may backlash politically against efficiency provisions that may result in inconvenience or cost.	As above in 3.
5	Driven by engineering professional standards.		
6	Sometimes driven by champions that emerge on council or in the community.		

Table 2: Council incentives and disincentives with respect to water efficiency

### **13.3 QUESTION 2: POSSIBLE CONTRIBUTIONS FROM COUNCILS ON EFFICIENCY**

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*What are the most important contributions to efficiency programming that municipal councils might be able to make?*

1. Dedication to public education.
2. Lead by example at municipal facilities. For example, they should have water efficient municipal buildings.
3. Test limits of municipal power by passing and enforcing efficiency bylaws.

### **13.4 QUESTION 3: OTHER AREAS OF WATER SUPPLY**

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*Do competing incentives and disincentives faced by council affect other areas of water supply policy? If so, which ones and how?*

The group provided the following responses:

1. *Industrial and Commercial Growth*: Industrial and commercial growth may be seen to contradict or undermine conservation and/or efficiency efforts.
2. *Tax-base Growth*: The constant demand for tax base growth means that base demand is always increasing. In this way, developers are acquiring the benefits of individual public constraints on water use. The existing public can see that the developer is reaping the benefit of conservation and water efficiency.
3. *Agriculture - Urban Tension*: Agriculture resists efforts to become more efficient because they will lose their “share” of the water allocation to neighbouring urban areas.
4. *Growth Plan*: The provincial growth plan (Places to Grow) drives municipalities to grow where there may sometimes be insufficient water supply. As a result, expensive alternatives like large pipelines to the Great Lakes may be necessary if conservation programs aren't introduced. For example, the city of Guelph has been told that they are going to grow, but the community has voted against a pipeline.

## 14 SUMMARY - DISSEMINATION OF FINDINGS AND FURTHER RESEARCH

As summarized above, the workshop discussions highlighted the relationships between changes in governance and practices of sustainable water management in several ways. For example, Oliver Brandes made the distinction between narrow DSM and broader 'soft path' approaches to water conservation, where the former is concerned with utility water supply management and different types of demand, and the latter incorporates ecosystem health and services, ecological governance and source water protection. This distinction was reflected in the feedback from the water efficiency breakout sessions. As explored by participants, this distinction has implications for governance as well as conservation, as it influences how we define the problem of conservation and the policies we correspondingly implement. This distinction also reflects the fact that the responsibility for conservation has largely fallen to water utilities in Ontario. As such, the current approach to governance in Ontario has created important disincentives for 'soft path' approaches to water conservation, in that the various levels of government have not sufficiently assumed their role in terms of standards, regulations and funding.

These and other results of the workshop will be incorporated into the findings of the Ontario pilot phase of the Infrastructure Canada "Municipal Water Supply Infrastructure Governance in Canada" project. In particular, the workshop results will be used to revise the policy paper associated with the Ontario pilot phase of our project. Many valid points regarding the roles of various levels of government in water governance and efficiency, the concerns of various groups with respect to water sector restructuring, and the challenges faced with respect to different types of water efficiency programs and water efficiency occurred at the workshop, are of particular relevance to the report. In addition, many of the participants provided specific feedback to the draft version the report. This will also be incorporated into the revised version. The policy paper, entitled "Water Governance in Transition: Utility Restructuring and Water Efficiency in Ontario", will be disseminated in the late summer of 2007. It will be made available for download through the project website and 1000 copies will be printed and posted to a variety of organizations and stakeholders involved in water supply across Canada.

The workshop results will also inform the pan-Canadian phase of the research, which will begin in 2007 and be completed in mid-2008. For example, participants stressed the importance of the provincial-municipal governance relationship in issues related to water supply management in Canada. Drawing on this insight, and on our database of inter-jurisdictional variation in water policy and legislation across Canada's provinces and territories, we will reformulate specific aspects of the pan-Canadian phase of the research project, including the focus of our research questions as well as our case study selection. A second project workshop will be held in mid-2008, after which a second workshop report and final project policy report will be released. All of the above-mentioned documents will be available through the Program on Water Governance website: ([www.watergovernance.ca/Institute2/municipal](http://www.watergovernance.ca/Institute2/municipal)), and feedback is welcome on any of the products of the research project (via email to [kathrynf@interchange.ubc.ca](mailto:kathrynf@interchange.ubc.ca)).

## APPENDIX A - WORKSHOP PARTICIPANTS

Nancy Autton	Urban Governance, City of Toronto
Paul Ayotte	Mayor, City of Peterborough
Karen Bakker	Department of Geography, UBC
Carol Beal	Infrastructure Canada
Sharon Bennett	Nickel District Conservation Authority, Sudbury
Oliver Brandes	Polis Project, University of Victoria
Alice Cohen	Resource Management and Environmental Studies, UBC
Nicola Crawhall	Nicola Crawhall & Associates
Graham Daborn	Arthur Irving Academy for the Environment
Mohammed Dore	Department of Economics, Climate Change Lab, Brock University
Doug Doyle	City of Vancouver
Diane Dupont	Department of Economics, Brock University
T. Duncan Ellison	Canadian Water and Wastewater Association
Neil Freeman	Ontario Power Authority
Ray Fung	Water Sustainability Committee, BCWWA
Kathryn Furlong	Department of Geography, UBC
Shelly Gordon	Canadian Union of Public Employees
Dick Hibma	Conservation Ontario
Susan Howatt	Council of Canadians
Jen Karmona	Department of Forestry, UBC
Jim Keech	Utilities Kingston
Rosemary Kelleher-MacLennan	Past-Chair, Ontario Municipal Water Association
Stephanie Lepsoe	Resource Management and Environmental Studies, UBC
Gord Miller	Environmental Commissioner of Ontario
Sarah Miller	Canadian Environmental Law Association
Madjid Mohseni	Chemical and Biological Engineering, UBC
Linda Nowlan	Program on Water Governance, UBC
Gus Oliviera	Canadian Union of Public Employees
Ric Robertshaw	Public Works, Region of Peel
Brian Rosborough	Association of Municipalities of Ontario
Hans Schreier	Institute for Resources, Environment and Sustainability, UBC
Olga Schwartzkopf	Greater Vancouver Regional District
Ken Seiling	Regional Municipality of Waterloo
Kelly Shields	Ministry of Public Infrastructure Renewal
Wayne Stiver	Water Utility Services, Peterborough Utilities Services
Harry Swain	Canadian Institute for Climate Studies/Management Consultant
Stan Woods	Regional Utility Planning, Greater Vancouver Regional District

## **Water Governance in Transition**

Utility Restructuring and Water Efficiency in Ontario

Peter Wall Institute, UBC - April 13, 2007

7:45 - 8:30 Breakfast

Morning Session: Chair: Karen Bakker

8:30 - 8:50 Welcoming Address  
Dianne Newell, Peter Wall Institute for Advanced Studies  
Hans Schreier, IRES

8:50 - 9:00 Introduction of Workshop (Karen Bakker, Kathryn Furlong)

9:00 - 9:30 Participant Introductions

9:30 - 10:00 Plenary I: Water Efficiency: From Supply to Demand-side Management? (Introduction and Focus: Oliver Brandes)

10:00 - 10:15 Coffee Break

10:15 - 11:15 Breakout Sessions  
Groups A1-A3: Drivers, Challenges and Trends  
Groups B1-B3: Methods of Managing Demand

11:15 - 12:15 Report Back Session

12:15 - 1:15 Lunch and Networking

Afternoon Session: Chair: Linda Nowlan

1:15 - 1:45 Plenary II: Restructuring Water Supply: Challenges, Trends and the Role of Municipalities (Introduction and Focus: Kathryn Furlong)

1:45 - 2:45 Breakout Sessions  
Groups A1-A3: Drivers, Challenges and Trends  
Groups B1-B3: Role of Municipalities in Water Supply

2:45 - 3:00 Coffee Break

3:00 - 4:00 Report Back

4:00 - 4:45 Open Floor / Plenary

4:45 - 5:00 Closing / Future Directions

6:30 Dinner