

BRIEFING NOTE

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Joint Submission to the Prime Minister's Office by the University of Victoria's POLIS Project on Ecological Governance and Friends of the Earth Canada

Issue

Strategic federal intervention in urban water demand management will deliver on the government's commitment to Sustainable and Equitable Canadian Cities.

Background

Prime Minister Martin is firmly committed to enhancing the quality of life in Canadian cities. This is an important mandate since 80% of the Canadian population resides in urban centres, and cities are critical to the economy and the well-being of Canadian society. Yet, according to the recent NRTEE report, "Environmental Quality in Canadian Cities," indicators of environmental performance in Canada's urban centres are trending downward. To address this predicament, the NRTEE recommends demand management as a key strategy for changing the current trend.

Despite a positive direction set out by the NRTEE, the report fails to adequately address urban water issues. The importance of demand management in the context of urban water systems is not explored beyond the need for water metering. This omission is a serious concern since tremendous potential exists to increase water use efficiency in Canada's cities through comprehensive and integrated application of demand management.

Implied in Prime Minister Martin's "Politics of Achievement" platform is a message of sustainability, a concept that includes elements of equity among citizens as well as environmental protection. The Prime Minister explicitly recognizes that "good working infrastructure and an unerring commitment to clean air and clean water" are critical to transforming Canada's urban centres into thriving, sustainable 21st century cities.¹ For this transformation to take place, urban water sustainability must be a key component of the "new deal" for municipalities. Just as with energy and transportation demand management, water demand management results in economic benefits, environmental protection, and social equity.

Strong federal leadership is needed to ensure that public funds are used in the best interest of Canadians. ***Fiscal policies that link infrastructure funds to water demand management programs*** will have a lasting positive impact on environmental quality in Canada's cities and secure our position as leaders in the 21st century economy.

Discussion and analysis – Overcoming the urban water challenges

Fresh water plays a critical role in the development and well-being of Canadian cities. As the nation's cities continue to grow, managing the water demands of urban populations is becoming increasingly complex. Myriad factors, including rising water use, seasonal water shortages, pollution, failing infrastructure and the associated human and financial costs, growing concern for aquatic ecosystems, and the uncertain impacts of global climate change combine to challenge the sustainability of Canada's urban water systems.

Canada's current urban water infrastructure deficit is estimated at well over \$30 billion with demands for new capital expected to exceed \$41 billion by 2015.² Clearly, addressing failing water and wastewater infrastructure must be a priority if municipalities are to effectively protect public health and environmental quality. A comprehensive approach to demand management will ensure existing infrastructure capacity is fully exploited, meeting the water needs of Canadian society in the most cost-effective way.

¹ Paul Martin. 2003. Making History: The Politics of Achievement.

² NRTEE. 1996. Water and Wastewater Services in Canada.

Achieving sustainability in Canada's cities requires a fundamental transition in urban water planning and management. Traditional supply-side water management has brought tremendous benefits to Canadians. However, continuously expanding infrastructure and developing new sources of supply is increasingly expensive and ultimately unsustainable, from both economic and environmental perspectives.

The focus of urban water management must shift away from supply-side approaches to managing freshwater resources in a more integrated manner with a strong emphasis on demand management. By neglecting this shift, governments run the risk of entrenching economically and environmentally unsustainable structures and practices for decades to come.

The federal role

A critical role exists for the federal government in fostering the transition to demand management and water sustainability in Canada's cities. Opportunities for federal resources and capacity to reorient urban water management towards sustainability include: improving the collection, quality and accessibility of water use data; creating standards and promoting mandatory labelling for water efficient products; enforcing relevant federal legislation; demonstrating leadership by implementing water efficiency initiatives in all federal facilities; and coordinating effective and accountable water governance in Canada.

While these opportunities are all important elements of urban water sustainability, reorienting infrastructure funding programs away from the traditional supply-side focus toward demand management must be a top priority for the federal government. In many ways the opportunity facing the federal government is similar to that in the mid-1970s when federal efforts made significant progress in energy conservation in Canada.

Linking infrastructure funding to urban water demand management

Fiscal policy reform is the most powerful immediate tool for the federal government to engage and assist municipalities in water demand management. In particular, linking federal grants for water and wastewater infrastructure to demand management should be a core strategy for advancing the transition to urban water sustainability. This means developing guidelines for both federal agencies and funding partners – the provinces and the FCM – to ensure that infrastructure financed through federal programs³ makes a substantial and lasting contribution to enhanced environmental quality in Canadian cities.

Granting of federal infrastructure funds subject to demand management is a key recommendation⁴ put forth in the NRTEE report. However, for urban water systems, metering is the only demand management tool proposed. Demand management entails much more than metering; it includes a sophisticated package of measures such as conservation-based pricing, education, mandating high efficiency household fixtures, repairing leaks, and regulatory regimes that promote reuse and recycling. Urban water demand management must be recognized as a long-term community-planning tool that is both economically and environmentally superior to traditional supply-oriented water management.

³ Including the Infrastructure Canada Program, the Canada Strategic Infrastructure Fund, the Green Municipal Investment Fund and Green Municipal Enabling Funds

⁴ NRTEE. 2003. Environmental Quality in Canadian Cities: The Federal Role. Recommendation #6, p. 38

The pros of linking comprehensive demand management to infrastructure grants:

- + Expenditure neutral – the grants already exist and can easily be modified as a lever for conservation;
- + Least-cost approach for meeting present and future water needs – maximizing the utility of existing infrastructure through demand management is generally more cost-effective than expanding water and wastewater systems;
- + Demand management results in very few adverse environmental effects – far fewer than developing additional supply facilities;
- + Demand management reduces water throughput, which implies a corresponding reduction in wastewater flows and treatment costs;
- + Though the federal government has an important role, demand management is by its very nature implemented at the local level, and therefore it creates opportunities for win-win linkages between federal and municipal governments;
- + Incentives for technological innovation – creating a market for technologies and expertise that support water efficiency will spur innovation in an important emerging global market;
- + Demonstrates the government’s commitment to healthy, sustainable cities;
- + Asserts a federal leadership role in creating an innovative national approach to water management while empowering communities to implement locally appropriate solutions.

The cons of linking demand management to infrastructure grants:

- May complicate administrative oversight of granting programs;
- May create tension with provinces as federal authorities exert influence on local initiatives;
- May create up-front costs to provide skills and training for implementation of demand management by cities – these costs would be recovered as future infrastructure needs are reduced due to efficiency gains and lower per capita demands.

Recommendation:

- ***Federal infrastructure funds for urban water systems must be subject to comprehensive demand management planning by grant applicants.***

Guidelines should be developed to aid those responsible for administering federal infrastructure grants for urban water infrastructure to move from the current situation, in which funds are generally not contingent on demand management, to making all publicly funded infrastructure subject to demand management planning.

Urban demand management plans must be comprehensive, integrated, and long-term. Detailed implementation schedules and performance-based criteria are critical to ensuring existing infrastructure is wisely used, thus securing public health and enhancing environmental quality. For example, grants for water and wastewater infrastructure could be contingent on the municipalities preparing plans to meet quantifiable targets, such as reducing per capita water use to 30 % below current levels in each municipality.

Evidence from the U.S. indicates that such increases in water efficiency are definitely achievable. A recent water use study in California shows that the same services now provided in urban areas - including residential, commercial, and industrial activities - can be provided with existing technology at current prices, with one third less water than is currently used.⁵

⁵ Peter Gleick et al. 2003. *Waste Not, Want Not: The Potential for Urban Water Conservation in California*. Pacific Institute for Studies in Development, Environment, and Security. Oakland California. Available at: www.pacinst.org.