Infrastructure Deficit and Water Opportunities

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Required upgrades to existing water and waste water infrastructure across Canada have been estimated to be $88.5 billion

The deficit related to water supply, waste water and storm sewer systems in Canada was estimated at $31 billion for the existing capital stock and an additional $56 billion for new investments

Based on a 2005 report, between then and 2015, Ontario’s water infrastructure was estimated to require $30-40 billion for capital renewal, deferred maintenance and future growth
The National Round Table on the Environment and the Economy stated in 1996:

- “By ignoring this need for the last 15 to 20 years, governments have exacerbated the situation since repair bills rise exponentially over time.”

Then the estimate for water and waste water needs across Canada was in the range of $38-49 billion. New capital demands for water and waste water were expected to exceed $41 billion by 2015.

This is a long standing problem governed by an “out of sight, out of mind” approach that enabled the deferral of maintenance and reinvestment for the sake of competing government demands.
Next focus: Water Infrastructure?

- The need is particularly acute in Ontario
- The Walkerton tragedy brought it into focus:
  > In May 2000, E. coli contamination in drinking water system resulted in 7 deaths and 23,000 illnesses
  > O’Connor Inquiry suggested provincial cutbacks in water infrastructure partly contributed to this tragedy
- Subsequently, new regulations have added an estimated $800 million of additional capital costs to municipalities
  > For example, amendments to *Safe Drinking Water Act* established stricter standards for municipal drinking water testing, monitoring and inspections
Swain Report (May 2005) focused on how to implement O’Connor Inquiry recommendations

- Estimated value of all water and waste water assets in Ontario $72 billion
  - $20 billion of which is in treatment plants, the rest in distribution and collection systems
- Estimated $30-40 billion needed between 2005 and 2015 to meet Ontario’s water and wastewater needs
- Highlighted studies that found no connection between performance of assets and private ownership
Swain Report concluded that several initiatives were required to improve Ontario infrastructure:

> Scale and capacity of the water and wastewater systems must be increased

> Governance must be strong and effective

> Regulation should focus on providing safe, affordable water services, with as light-handed regulation as possible

> Innovations in technology and training should be used to reduce costs
Next steps after Swain Report

• The political momentum for water infrastructure spending waned in the mid-2000s
  > Municipalities feared loss of control of local water and wastewater systems (and the resulting revenues)
  > Recession initially made large scale government spending less popular

• However, momentum is returning
  > After initial fears, aggressive infrastructure spending became (and still is) a favored response to recession
  > Province started with renewable energy; now looking to other sectors …
Setting the Stage for Investment in Ontario

- **Proposed *Water Opportunities and Water Conservation Act, 2010***
  
  > Purposes: to help foster creation and export of innovative clean water technology, to prove water conservation, to attract economic development and to create jobs
  
  > Would create the Water Technology Acceleration Project to help bring new innovative water solutions and technology developed in Ontario to the market
  
  > A new Ontario Small Waterworks Assistance Program would provide capital funding to assist small communities in improving water and wastewater systems
Impediments to Investing in Water Infrastructure in Ontario

• Until recently, a lack of government priority
  > has not historically been among the short-term priorities of municipal governments
  > many municipalities have little understanding of the future capital maintenance requirements for water infrastructure

• Reluctance among public to have government contract out control over water sector
  > agencies fear public backlash if facilities not well managed

• Procurement process can seem too contentious or complex for some local governments
Opportunities to Invest in Water Infrastructure in Ontario

- Shortages of municipal capital, rising maintenance costs for aging facilities and more stringent environmental standards have led governments to explore private financing.

- Various countries have used concessions, leases and management contracts with private firms to incentivize private investment in the water sector.

- PPPs becoming more common:
  > typically, private sector operator is contracted to design, build, finance and operate the facilities, with government paying costs and return on investment.
• Governments increasingly aware of advantages of this approach

  > easier to obtain financing for utility if lenders see it managed by credible commercial firms

  > competition for service contracts can promote innovation and cost control

  > private firms have expertise to make more accurate predictions of service demands

  > engagement of multiple service providers can create operational efficiencies

  > allows private sector to bear the investment risk
Two Key Elements

• At the heart of the issue there are two key elements to correcting the deficit:
  > the price for water services has to be right
  > the funding model must be able to work within the public ownership paradigm
• Pricing that does not reflect full cost user pay has led to excess use, strategies in funding and delayed innovative environmental technologies to foster conservation

• Combined with the right financing vehicle, full cost pricing can facilitate needed capital
Public Ownership

- In Ontario particularly, giving up government ownership and control will be difficult - for perceived safety reasons and because of sensitivity related to utility rates

- However, unless the investment gap can be closed, conditions will deteriorate further