



Water and Wastewater Asset Management in the GTA: Challenges and Opportunities **by Tamer El-Diraby**

Fact Sheet

Findings and Observations

- “The health of our water and wastewater assets is integral to human safety and health. These are not just major infrastructure systems; they are our civil lifelines.”
- Most municipalities in the GTA rehabilitate significantly less than 1% of their water and wastewater assets annually. The systems are deteriorating faster than current rehabilitation rates.
- Toronto is suffering from deferred maintenance, maybe more than any other Canadian city. About 20% of all water mains in Toronto are more than 80 years old.
- Leakage rates have more than doubled over the last three decades.
- At the same time, the population is increasing. The GTA population is expected to reach 10.5 million by 2031. There is huge pressure to meet new demand, let alone maintain and upgrade the existing system.
- The GTA Task Force estimated in 1996 that about \$55 billion of capital investment will be required over the next quarter-century to build new roads, water and sewer networks.
- “In addition to insufficient revenues to meet infrastructure needs, municipalities are confronted with increasing responsibilities off-loaded by federal and provincial governments.”
- Infrastructure decisions are often based on political considerations. Often only projects with extremely short payback periods are adopted.

- There is a lack of coordination and cooperation among all levels of government. “Much of the effort has been wasted in debates between the three levels of government about who is responsible.”
- There is also a lack of a regional perspective. In the GTA, there is no coordinating mechanism to integrate infrastructure plans.
- Infrastructure funding is unstable and unpredictable. “It is inconceivable that infrastructure funding in a developed country like Canada continues in the current approach.”

Recommendations

- Implement full metering to achieve both greater fairness and conservation gains. In New South Wales, Australia, the move to a pay-for-use regime resulted in a sustained reduction in overall water consumption of around 24%.
- Move to full-cost pricing. This would allow municipalities to plan and budget for investments in new infrastructure.
- Make greater use of private-sector participation. “There is a need to instill a private sector mentality in the management of municipal infrastructure. This is not a call for or against privatization. Rather, a call for managing the municipal infrastructure by independent accountable professionals under the auspices of public officials.”
- Explore capturing grey water (from homes, wastewater stations and storm drains) for use in watering lawns and gardens.
- Consider establishing public utility corporations to manage these assets. This would introduce more professional planning and decision-making, while a level of government oversight would ensure continued local accountability.
- Make funding from senior levels of government contingent on meeting performance standards set out in legislation.
- Consider creating Regional Sustainability Agencies to coordinate regional plans, and Provincial Infrastructure Banks to leverage public funding by attracting private investment.