



The GTHA's Water and Wastewater Needs from an Investor's Perspective

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Presentation Overview

- Quick high-level review of W/WW investment needs and Ontario's policy response
- Discussion of some of the key issues from an investor's perspective



Ontario W/WW Investment Needs



Ontario's State of Repair and Estimated Needs

- In 2005, the Ontario government's Water Strategy Expert Panel estimated that the current stock of **W/WW assets in Ontario at \$72B** - \$20B in treatment plants and the rest in distribution and collection systems.
- The vast majority of W/WW plants are in small municipalities with populations less than 35,000 (see tables).
- In 2012, AMO estimated the W/WW infrastructure investment gap (which includes deferred and new investment) at more than **\$12B over 10 years**.

Ontario Wastewater Plants by Population Served (2000)		
Population Served	#Water Plants	% Plants
0-4,999	316	69.1
5,000-9,999	56	12.3
10,000-34,999	43	9.4
35,000-99,999	29	6.3
100,000 +	13	2.8
Totals	457	100.0

Ontario Water Plants by Population Served (2002)		
Population Served	# Water Plants	% Plants
0-4,999	555	75.7
5,000-9,999	84	11.5
10,000-34,999	54	7.4
35,000-99,999	23	3.1
100,000 +	17	2.3
Totals	733	100.0

The Ontario Government's Public Policy Response

Ontario

- Over the last 15 years, the Ontario government has commissioned several major water studies, including the Swain Report of 2005.
 - These studies identified the *need to aggregate water systems*, move to *full cost recovery* for water services, and *make significant investments* in water and wastewater infrastructure.
- The most recent water related legislation enacted by the Ontario government is the *Water Opportunities Act* of 2010.
 - The Act is focused on making Ontario a leader in water technologies and *optimizing existing water infrastructure through demand reduction, demand management, and reducing system losses*.
- In terms of providing funding assistance to municipalities for W/WW projects, the only capital granting program is the *Small, Rural and Northern Municipal Infrastructure Fund* (a \$100M fund established in 2013).
 - The Infrastructure Ontario Loan Program provides debt financing to municipalities for W/WW projects.
- It is unclear how much of the government's *planned \$130B in new infrastructure* spending over the next 10 years *will be earmarked to W/WW* projects.

Toronto

- Toronto Water is the *largest supplier of municipal drinking water and wastewater treatment in Canada* and the fifth largest in North America.
 - It distributes to the demand of **3.3M residents** and businesses in Toronto, and portions of York Region and Peel Region.
- According to Toronto Water Services' 2013-2022 Capital Budget and Plan, the estimated replacement value of Toronto Water's inventory of capital assets is \$28.2B.
- The 10-Year Water Services Capital Plan includes:
 - Legislated projects which are 8% of total funding (including Bay Effluent System projects; compliance with existing and emerging provincial legislation).
 - State of Good Repair (SOGR) projects accounting for 57% of total funding.
 - From **2013-2017**, the City will **spend \$2.1B for infrastructure renewal projects**, representing 46% of the total funding allocated to these projects.
 - Service improvement projects represent 25% of total funding (primarily for basement flooding, addition of second phase odour control project at the Ashbridges Bay Treatment Plant, and Storm Water Management projects).
 - **Growth projects represent 9% of total funding** (enhanced watermains and service connections).

Hamilton & Niagara

Hamilton

- The City of Hamilton is undertaking a city-wide master plan to develop policies and strategies for its *W/WW servicing over the next 30 years*. The Plan includes the lake based water distribution system, combined sewer and sanitary sewer systems.
- The City operates two wastewater treatment plants (WWTP). The City is planning to *invest more than \$265M in its Woodward WWTP beginning in 2017*.

Niagara

- Niagara Region is responsible for water treatment, transmission mains, storage facilities and major booster pumping stations; as well as wastewater treatment, truck sewers and sewage pumping stations. The area municipalities are responsible for local water distribution networks and local sewer collection systems.
- The Region's Water and Wastewater Master Servicing Plan lists recommended projects in the Regional wastewater system to *support growth* through to 2031 (*total \$181.4M*).
- The Region's Water and Wastewater Master Servicing Plan also recommends Regional Water projects to *support growth* through to 2031 (*total \$57.9M*).



Peel Region

- The Region is in the process of completing a master plan for its W/WW services.
- Based on preferred technological solutions to meet current and future demand needs, the Region is *projecting more than a \$2B capital investment to 2031.*

Preliminary Investment Needs for Peel Region W/WW

WATER	Category	Preliminary Cost Estimate (2013 \$)
	1 – Transmission System	\$975,000,000
	2 – Distribution System	\$254,000,000
	3 – Intensification impacts	\$214,000,000
	4 – Supplemental infrastructure	\$209,000,000
Total Infrastructure Requirements	\$1,652,000,000	

Transmission: Cost related to upgrading larger watermains used to transfer water north through the major facilities

Distribution system: Cost related to upgrading watermains distributing water through the system

Intensification: Cost related to upgrades due to intensification

Supplemental: Other costs not included in the above categories

WASTEWATER	Category	Preliminary Cost Estimate (2013 \$)
	1 – Trunk System	\$408,000,000
	2 – Collection System	\$142,000,000
	3 – Intensification impacts	\$14,000,000
	4 – Supplemental infrastructure	\$108,000,000
Total Infrastructure Requirements	\$672,000,000	

Trunk: Cost related to upgrading larger trunk sewer used to convey wastewater through the major facilities

Collection: Cost related to upgrading sewer collecting flow from the local system to the trunk system

Intensification: Cost related to upgrades due to intensification

Supplemental: Other costs not included in the above categories

Challenges Facing Private Sector Investment



Market Outlook

1. There is a *significant and growing investment need* in W/WW infrastructure in Ontario;
2. System **governance remains fractured** which is an *impediment to private sector investment*;
3. There is an *absence of coherent and focused government policy* and funding for addressing this gap and it is unclear that one will develop in the short-term. In the medium-term, it is likely that W/WW *will become more of a priority for governments as weather events test aging water infrastructure* and funding agreements materialize among all levels of government under the New Building Canada Fund and Ontario's \$130B planned infrastructure spend;
4. There is an *outside chance that the Ontario government will revisit* and move to implement the policy directions suggested in the Swain and other similar reports. There is an *activist Environment minister* in place in Ontario and his policy priorities are slowly being rolled out;
5. There is a *significant planned spend at the municipal level*, but it is *unclear how much* of the planned investment is *for physical plant versus linear servicing* infrastructure.

Market Outlook Cont'd...

- While there is *no doubt that there is a huge investment need* in the W/WW sector in Ontario, there is *no burning political platform* that is causing government to *undertake sectoral transformation and large scale infrastructure investments*. This is not to say that a burning political platform will not come into being.
- In fact, it is StrategyCorp's view that it will, but *a significant risk event needs to materialize* before government take action.
- This *may come sooner* rather than later because of *climate change and adverse weather events*.
- It is not possible at this time to put a timeframe around when government will move W/WW to the top of the policy and investment agendas.



Political Risk Hurdles to Reform

- Counterparty risks a perception and understanding issue
- While not a Crown covenant, municipalities are high quality covenants
 - Risk aversion and strong legislative frameworks
- Two major risk issues: *political risk and municipal capacity risk*
- Municipal decision-making is very different from Cabinet decision-making
 - No solidarity and decisions can be revisited at any time
 - Often all matters go to council for approval, this can create complications if councils not managed
 - Value calculation is very different
- Regulation of a utility model for W/WW
 - Independent or regulated return model
 - Degree of “political” interference in pricing
- Municipal capacity risks related to resourcing and focus on these resources
 - Reform cannot be on top of someone’s day job
 - Recruitment of expertise required

