WASTE MANAGEMENT

SNAPSHOT MEDIANS FOR 2016

0.86 TONNES
of residential waste
collected per household
SWST205 (SERVICE LEVEL)

0.42 TONNES
of residential waste
diverted per household
SWST235 (SERVICE LEVEL)

ONE TONNE OF ***DIVERTED*** ***GARBAGE*** COSTS = $195
SWST330T (EFFICIENCY)

KEEP IN MIND:

Influencing Factors

Influencing factors can create variances in comparison data from year-to-year and from municipality-to-municipality.

Diversion Efforts
Nature and extent of municipality's diversion efforts

Education
How municipalities educate citizens through services and programs

Geography
Service provisions are impacted by various population types

Government Structure
Single-tier vs. upper-tier municipalities

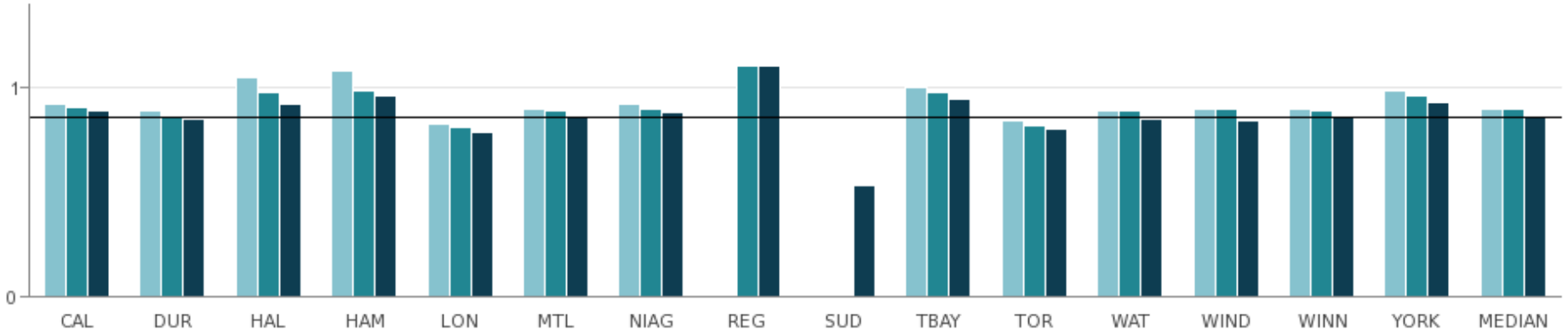
Infrastructure
Accessibility and distance to transfer stations and landfills

Organizational Form
Different service levels and standards

For a full description of influencing factors, please go to: www.mbncanada.ca

Fig. 34.1 Tonnes of All Residential Material Collected per Household

Residential waste includes organics, blue box, leaf and yard, municipal hazardous or special waste, other recyclable materials such as wood, metal and tires, as well as construction and demolition materials.

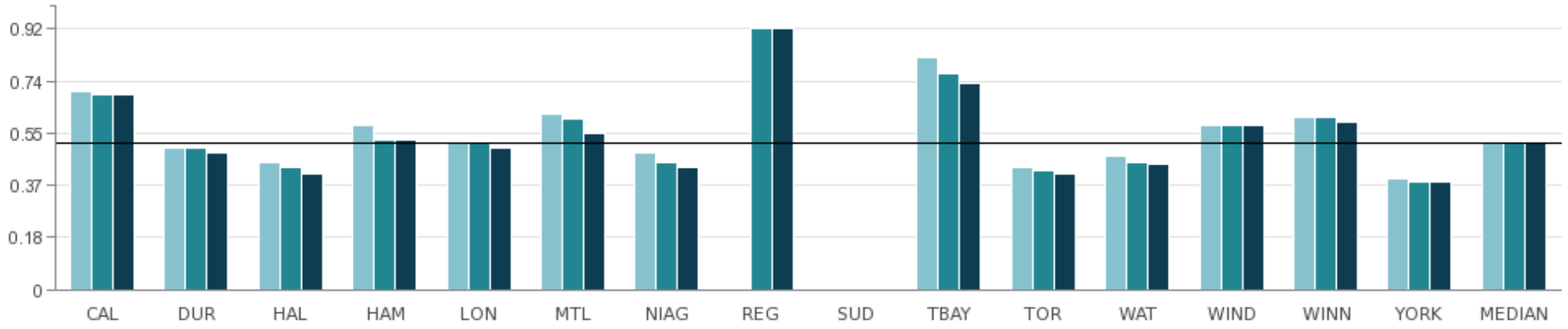


2014	0.92	0.89	1.05	1.08	0.83	0.90	0.92	N/A	N/A	1.00	0.84	0.89	0.90	0.90	0.99	0.90
2015	0.91	0.87	0.98	0.99	0.81	0.89	0.90	1.11	N/A	0.98	0.82	0.89	0.90	0.89	0.96	0.90
2016	0.89	0.85	0.92	0.96	0.79	0.86	0.88	1.11	0.53	0.95	0.80	0.85	0.84	0.86	0.93	0.86

Source: SWST205 (Service Level)

Fig. 34.2 Tonnes of Residential Solid Waste Disposed per Household

This measure indicates the amount of solid waste (or garbage) that is sent to landfills. In 2016, municipalities are reporting the same or a decrease in the amount of garbage being disposed per household.

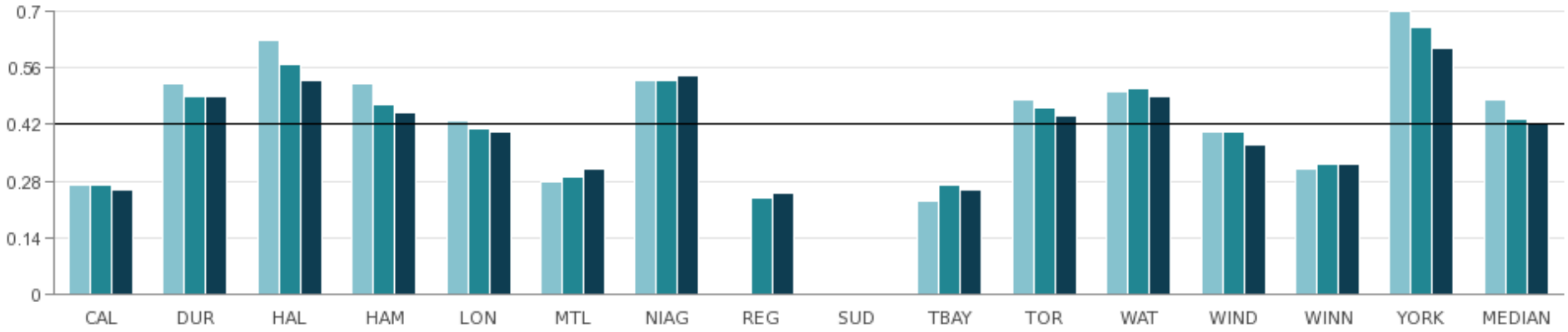


2014	0.70	0.50	0.45	0.58	0.52	0.62	0.48	N/A	N/A	0.82	0.43	0.47	0.58	0.61	0.39	0.52
2015	0.69	0.50	0.43	0.53	0.52	0.60	0.45	0.92	N/A	0.76	0.42	0.45	0.58	0.61	0.38	0.53
2016	0.69	0.48	0.41	0.53	0.50	0.55	0.43	0.92	N/A	0.73	0.41	0.44	0.58	0.59	0.38	0.52

Source: SWST220 (Service Level)

Fig. 34.3 Tonnes of Residential Solid Waste Diverted per Household

In 2016, several municipalities reported a decrease in the amount of solid waste (or garbage) diverted from landfills.

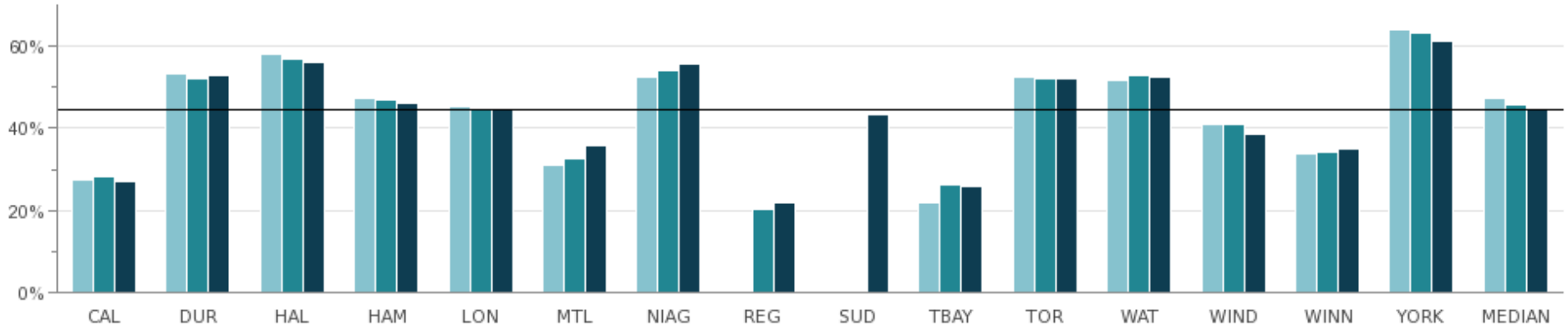


2014	0.27	0.52	0.63	0.52	0.43	0.28	0.53	N/A	N/A	0.23	0.48	0.50	0.40	0.31	0.70	0.48
2015	0.27	0.49	0.57	0.47	0.41	0.29	0.53	0.24	N/A	0.27	0.46	0.51	0.40	0.32	0.66	0.44
2016	0.26	0.49	0.53	0.45	0.40	0.31	0.54	0.25	N/A	0.26	0.44	0.49	0.37	0.32	0.61	0.42

Source: SWST235 (Service Level)

Fig. 34.4 Percent of Residential Solid Waste Diverted

This measure demonstrates the percent of residential waste diverted away from landfills and incineration through programs such as organics, blue box, leaf and yard, municipal hazardous or special waste and other recyclable materials, e.g. wood, metal, tires.

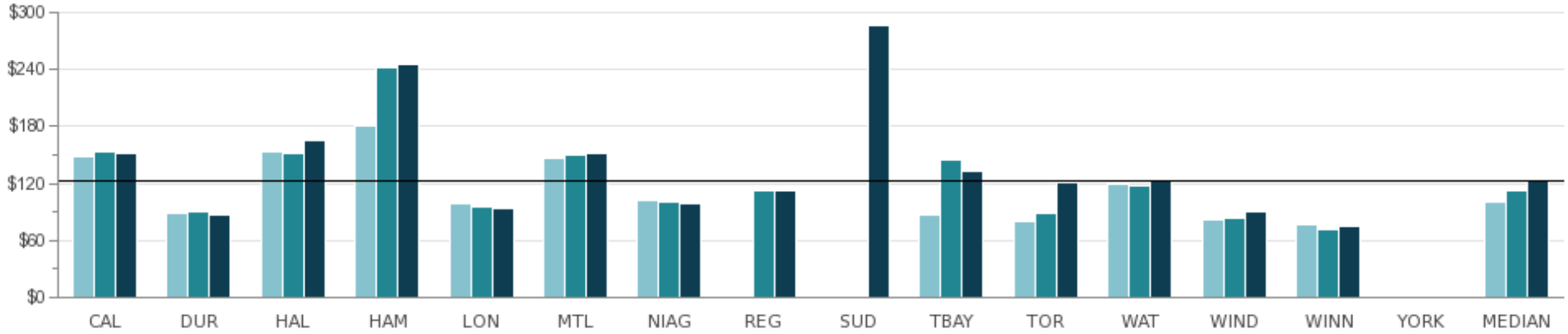


2014	27.5%	53.2%	58.2%	47.3%	45.4%	30.9%	52.4%	N/A	N/A	21.8%	52.7%	51.7%	41.1%	33.6%	64.2%	47.3%
2015	28.3%	52.0%	56.9%	47.1%	44.5%	32.5%	54.3%	20.3%	N/A	26.1%	52.3%	53.0%	40.9%	34.3%	63.5%	45.8%
2016	27.2%	52.8%	56.2%	46.0%	44.7%	35.9%	55.9%	21.7%	43.3%	25.9%	52.1%	52.6%	38.7%	34.9%	61.5%	44.7%

Source: SWST105M (Community Impact)

Fig. 34.5 Total Cost for Garbage Collection per Tonne - All Property Classes

All Property Classes includes residential, and industrial, commercial and institutional (ICI) locations.



2014	$148	$88	$153	$180	$98	$147	$102	N/A	N/A	$87	$79	$120	$82	$76	N/A	$100
2015	$153	$90	$152	$242	$96	$150	$101	$113	N/A	$145	$89	$117	$84	$72	N/A	$113
2016	$151	$87	$165	$245	$94	$152	$99	$113	$287	$133	$121	$124	$90	$75	N/A	$123

Source: SWST311T (Efficiency)

Comment:

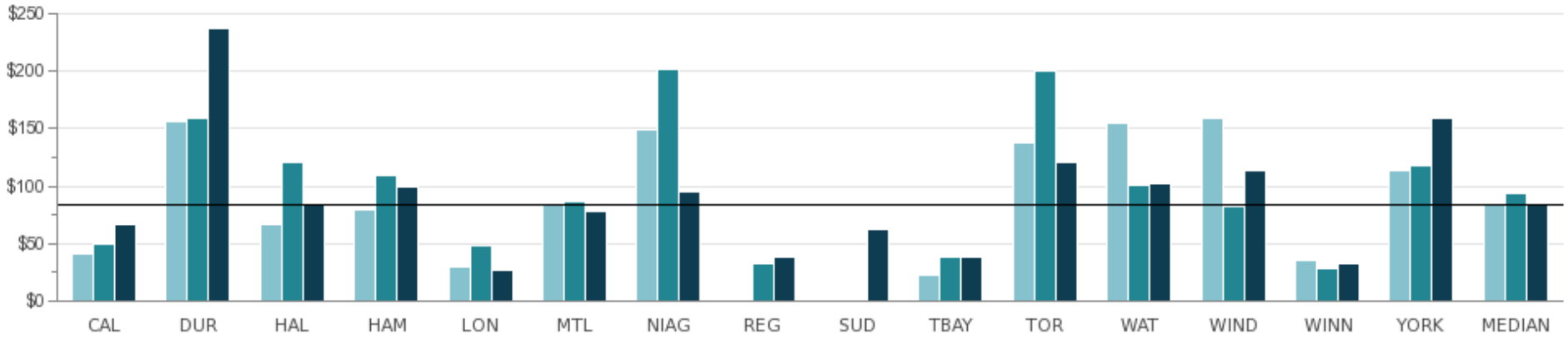
York Region operates a two-tier system, which means they are not responsible for curbside collection; however they are responsible for all processing. Therefore, York is able to report the total tonnes collected (see Fig 34.1 – SWST205); but not able to report the total cost.

Fig. 34.6 Total Cost for Solid Waste (All Streams) Disposal per Tonne - All Property Classes

All Property Classes includes residential, and industrial, commercial and institutional (ICI) locations.

Other impacts such as additional costs of transporting waste outside a community, aging infrastructure, capital costs, and the cost associated with the incineration of garbage, service agreements, increase in leachate treatment and fluctuating fuel costs can impact the results. In addition, declining landfill capacities typically result in increased landfill rates.

The results can be impacted significantly due to the recording of post-closure landfill liability costs.



2014	$41	$157	$66	$79	$30	$85	$149	N/A	N/A	$23	$138	$155	$159	$35	$114	$85
2015	$50	$159	$120	$109	$48	$87	$202	$32	N/A	$38	$200	$101	$82	$28	$118	$94
2016	$66	$237	$83	$99	$27	$78	$95	$38	$62	$38	$120	$102	$114	$32	$159	$83

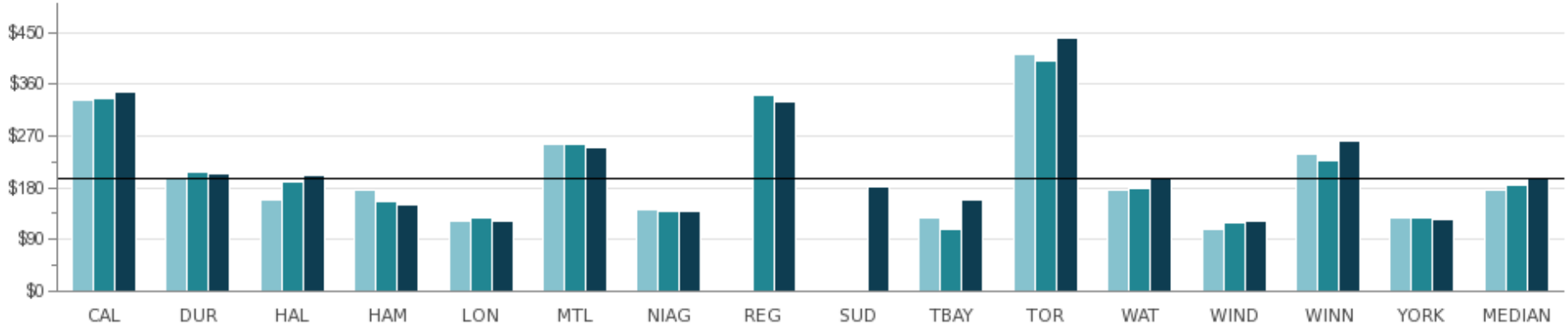
Source: SWST325T (Efficiency)

Comment:

Durham and York Region's increase is due to the first full year of operations for the Durham York Energy Centre.

Fig. 34.7 Total Cost for Solid Waste Diversion per Tonne - All Property Classes

All Property Classes includes residential and Industrial, Commercial and Institutional (ICI) locations.



2014	$332	$199	$159	$175	$123	$255	$142	N/A	N/A	$126	$413	$175	$108	$238	$128	$175
2015	$335	$208	$191	$156	$126	$255	$138	$340	N/A	$106	$401	$179	$120	$227	$126	$185
2016	$346	$205	$201	$151	$123	$249	$138	$331	$181	$159	$442	$195	$123	$260	$125	$195

Source: SWST330T (Efficiency)

WASTEWATER SNAPSHOT MEDIANS FOR 2016

AMOUNT OF WASTEWATER TREATED (PER 100,000 PERSONS)

17,127 **MEGALITRES** INTEGRATED SYSTEMS

11,431 **MEGALITRES** TWO-TIER SYSTEMS

WWTR210 (SERVICE LEVEL)

COST TO COLLECT & TRANSFER

$15,897/per km pipe INTEGRATED SYSTEMS

$57,345/per km pipe TWO-TIER SYSTEMS

WWTR305T (EFFICIENCY)

COST TO TREAT & DISPOSE

$559/megalitre INTEGRATED SYSTEMS

$660/megalitre TWO-TIER SYSTEMS

WWTR310T (EFFICIENCY)

1 MEGALITRE = 1,000,000 LITRES

KEEP IN MIND:

Influencing Factors

Influencing factors can create variances in comparison data from year-to-year and from municipality-to-municipality.

Age of Infrastructure
Age, condition and maintenance of wastewater collection system

Government Structure
Integrated systems vs. two-tier systems

Policy & Practices
Age, condition, pipe material and frequency of maintenance activities

Supply & Demand
Volume generated vs. system demand

Treatment Plants
Number, size and complexity of wastewater collection systems and treatment plants operated

Type of Wastewater Collection System
Design of the wastewater collection system & connection of storm sewers to sanitary sewers

Urban Density
Proximity of pipes to other utilities increases the cost for repair and replacement

Weather Conditions
Negative impacts associated with more severe and frequent extreme weather events

For a full description of influencing factors, please go to: www.mbncanada.ca