WATER

VALUE STATEMENT

I expect safe and affordable drinking water available continuously and that my municipality is responsive to conservation, environmental and quality issues.

Water

What is this Service?

Water Services include the treatment and distribution of potable (drinking) water from the water supply source to the customer. The goal of water services is to ensure a clean, affordable and adequate supply of water is available to meet demand from both existing communities and from future development. Provincial and municipal policies ensure water supply is readily available for emergency purposes, such as fire protection and to meet peak demand conditions. Water services are provided to residential and Industrial, Commercial and Institutional (ICI) sector customers. These services are generally funded through Municipal water rates.

To ensure the drinking water from your tap is safe and of high quality, it undergoes monitoring and testing during the treatment process. The distribution system is also monitored frequently. Annual water quality reports are available from your municipal water provider, showing compliance with provincial and federal water quality regulations.

Objectives May Include:

- Treatment of source water at water treatment plants to ensure drinking water meets or exceeds regulatory requirements
- Distribution of drinking water to customers through systems of water mains, water pumping stations and storage reservoirs
- Ensuring adequate capacity is maintained for both existing communities and future development

Influencing Factors:

1. Age of Infrastructure: The age and condition of water distribution system, the type of water distribution pipe material and the frequency of maintenance activities.
2. Amortization Costs: Amortization costs vary widely between municipalities depending on the age of the infrastructure assets and the scope of ongoing capital programs. The size, scope and dollar value of capital projects will impact amortization costs annually.
3. Conservation Programs: The extent of municipal water conservation programs can impact water consumption.
4. Government Structure: Single-tier service providers with jurisdiction over the water system vs. two-tier system where the responsibility for water service is divided between the local municipalities and the Regional municipality.
5. Provincial Standards: Specific municipal water quality requirements may exceed provincial regulations.
6. Supply and Demand: Cost is impacted by the water source (ground water or surface water), the resulting treatment costs and the number of independent water supply/distribution systems operated, and size of the geographic area serviced. Variation in supply to the ICI and residential sectors, relative to total system demand.
7. Treatment Plants: The number, size and complexity of a municipality's water treatment plants. The current capacity utilization to meet normal demands and the reserve capacity available to meet increased demands during droughts or emergency conditions.

8. Urban Density: The proximity of pipes to other utilities increases the cost for infrastructure repair and replacement.
9. Weather Conditions: Negative impacts associated with more severe and frequent extreme weather.

Extenuating Circumstances:

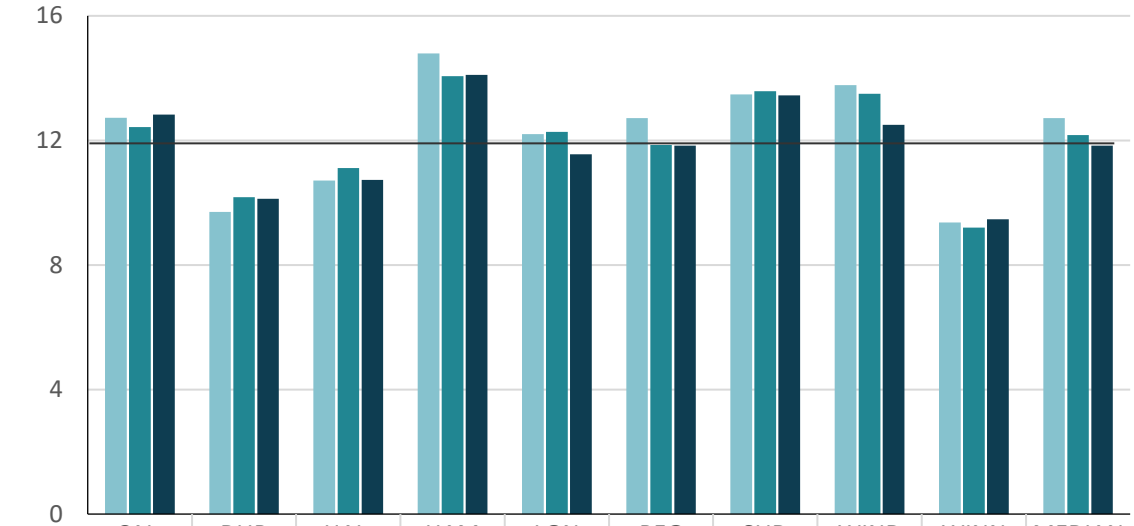
- **COVID-19 Pandemic:** Water is an essential municipal service. There was a small recovery in reduced treatment in the industrial, commercial and institutional sector and operating costs remained high due to the cost of personal protective equipment to protect the health and safety of staff and reduce the risk of virus transmission. The cost of materials continued to be high, and capital and maintenance projects were extended, delayed or deferred and material and parts deliveries were delayed.

Water

WATR210 - Megalitres of Treated Water per 100,000 Population

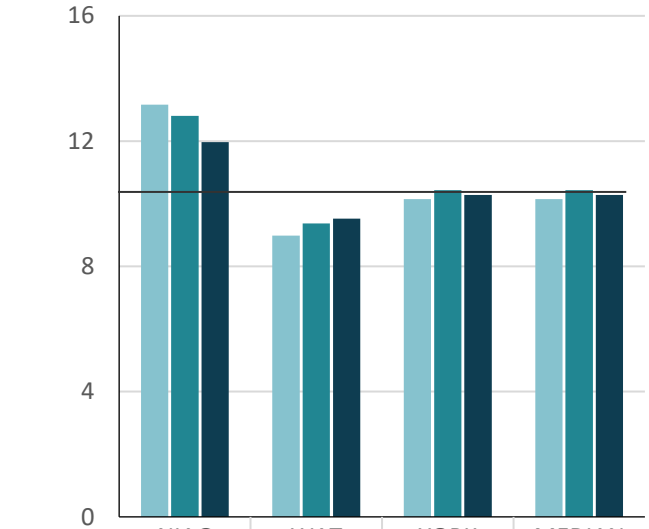
Integrated Systems: The term applies to municipalities that have full responsibility for all water activities including treatment, transmission, storage and local distribution. Two-Tier Systems: The term applies to municipalities that have responsibility for components of water activities such as treatment, transmission and major water storage facilities, whereas local municipalities are responsible for local distribution and/or storage facilities.

Integrated (In Thousands)



	CAL	DUR	HAL	HAM	LON	REG	SUD	WIND	WINN	MEDIAN
2019	12,724	9,701	10,711	14,794	12,206	12,711	13,478	13,777	9,362	12,711
2020	12,432	10,181	11,111	14,059	12,269	11,853	13,579	13,494	9,197	12,169
2021	12,824	10,121	10,732	14,108	11,555	11,831	13,446	12,496	9,468	11,831

Two Tier (In Thousands)



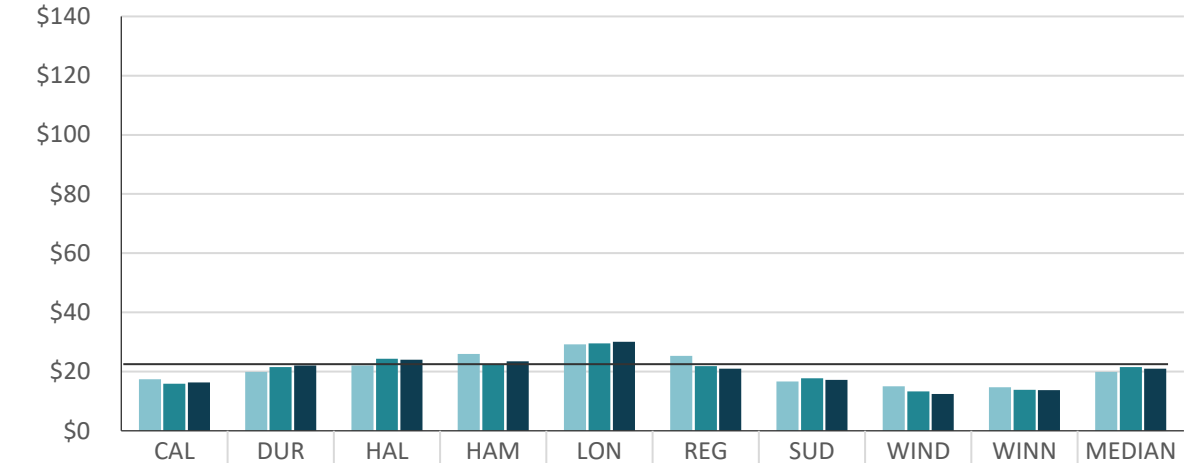
	NIAG	WAT	YORK	MEDIAN
2019	13,163	8,985	10,150	10,150
2020	12,808	9,371	10,429	10,429
2021	11,963	9,521	10,284	10,284

Water

WATR305T - Total Cost for the Distribution / Transmission of Drinking Water per Km of Water Distribution Pipe Relative to the Number of Water Pumping Stations Operated

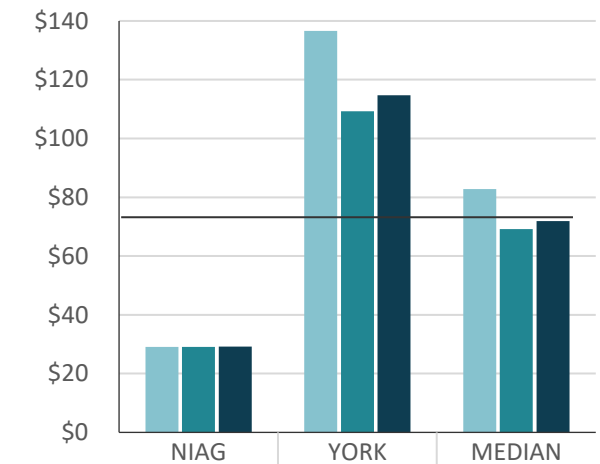
This measure reflects the total cost for the distribution and transmission of drinking water. Amortization is also included and can vary from year to year depending on the type of infrastructure, capital fund expenditures, etc. Municipalities providing service over a broad geographic area generally have higher operating costs due to the number and type of water treatment facilities and water pumping stations operated. The distance between the individual systems has an impact on the daily operating costs for both the distribution and transmission of drinking water. Refer to WATR210 for description of Integrated and Two-Tier systems.

Integrated (In Thousands)



	CAL	DUR	HAL	HAM	LON	REG	SUD	WIND	WINN	MEDIAN
2019	$17,465	$19,912	$22,085	$25,990	$29,180	$25,326	$16,678	$14,983	$14,701	$19,912
2020	$15,929	$21,520	$24,285	$22,381	$29,561	$21,883	$17,697	$13,325	$13,800	$21,520
2021	$16,373	$22,103	$24,047	$23,485	$30,096	$21,029	$17,197	$12,478	$13,721	$21,029
Stations	42	18	15	22	8	3	15	3	5	

Two Tier (In Thousands)



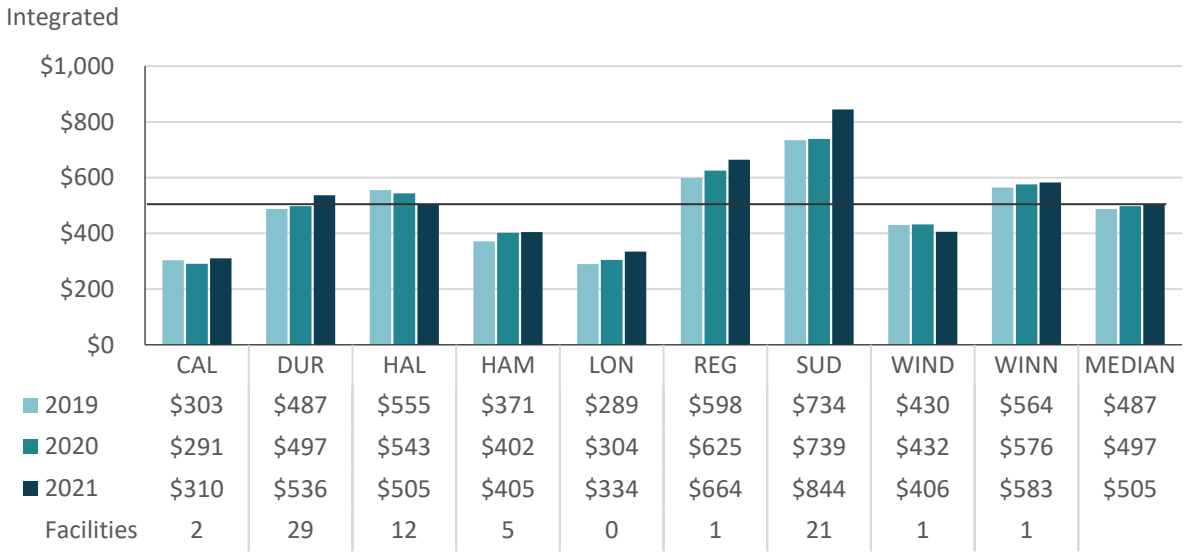
	NIAG	YORK	MEDIAN
2019	$29,097	$136,576	$82,837
2020	$29,069	$109,220	$69,145
2021	$29,227	$114,680	$71,954
Stations	11	22	

Waterloo: The Region's treatment and transmission infrastructure are fully integrated, and the cost components cannot be separated. See WATR315T.

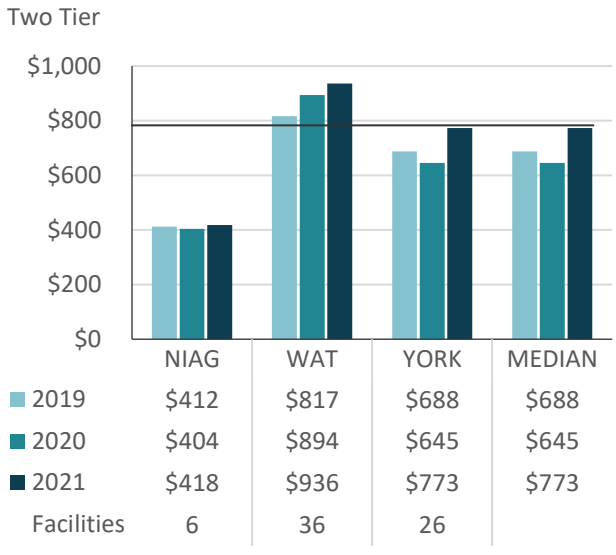
Water

WATR310T - Total Cost for the Treatment of Drinking Water per Megalitres of Drinking Water Treated Relative to the Number of Water Treatment Facilities

This measure reflects the total cost for the treatment of drinking water. Costs include operation and maintenance of treatment plants as well as quality assurance and laboratory testing to ensure compliance with regulations, and amortization which can vary from year to year depending on the type of infrastructure, capital fund expenditures, etc. Municipalities providing service over a broad geographic area generally have higher operating costs due to the number and type of water treatment facilities and wells operated. The distance between the individual systems has an impact on the daily operating costs for the treatment of drinking water. Refer to Figure WATR210 for description of Integrated and Two-Tier systems.



	CAL	DUR	HAL	HAM	LON	REG	SUD	WIND	WINN	MEDIAN
2019	$303	$487	$555	$371	$289	$598	$734	$430	$564	$487
2020	$291	$497	$543	$402	$304	$625	$739	$432	$576	$497
2021	$310	$536	$505	$405	$334	$664	$844	$406	$583	$505
Facilities	2	29	12	5	0	1	21	1	1	



	NIAG	WAT	YORK	MEDIAN
2019	$412	$817	$688	$688
2020	$404	$894	$645	$645
2021	$418	$936	$773	$773
Facilities	6	36	26	

Waterloo: The Region's treatment and transmission infrastructure are fully integrated and cost components cannot be separated. See WATR315.

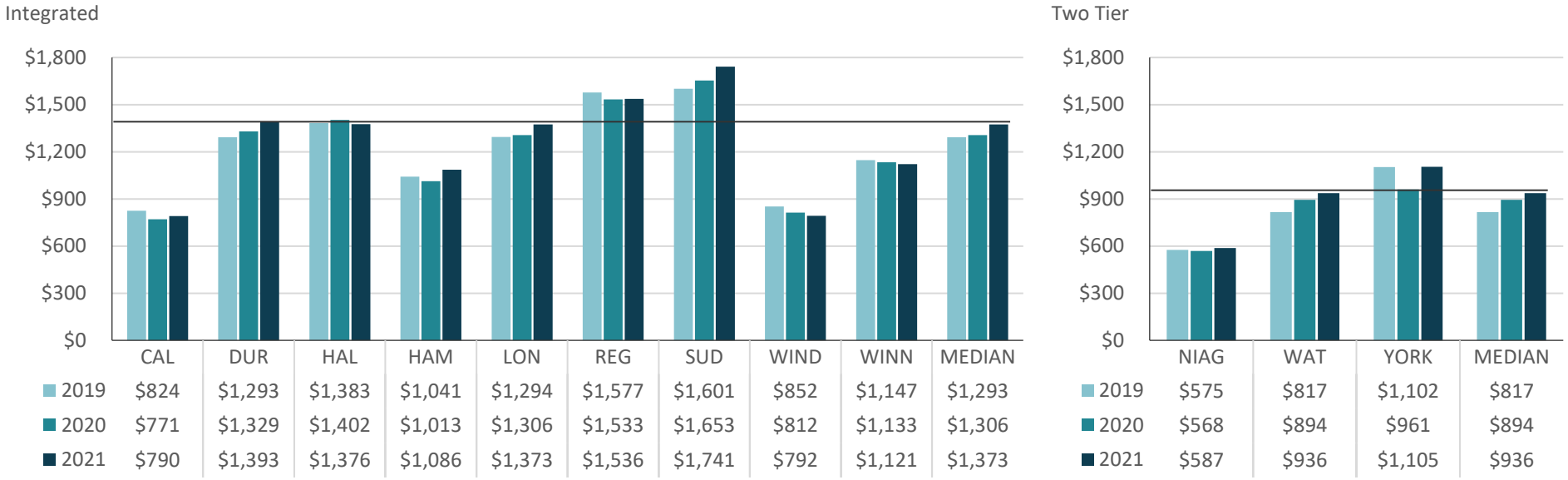
Sudbury: In 2021, there was an increase in cost for the treatment of drinking water while the amount treated stayed relatively the same as in 2020.

York: The decrease in total cost for the treatment of drinking water per ML of drinking water treated from 2019 to 2020 was attributed to the reclassification of some prior year capital expenditures.

Water

WATR315T - Total Costs for the Treatment and Distribution/Transmission of Drinking Water per Megalitres of Drinking Water Treated

This measure reflects the combined total cost for the treatment, distribution and transmission of drinking water. It includes amortization which can vary significantly from year to year depending on the type of infrastructure, capital fund expenditures, etc. Municipalities providing service over a broad geographic area generally have higher operating costs due to the number and type of water treatment facilities and water pumping stations operated. The distance between the individual systems has an impact on the daily operating costs for the treatment, distribution and transmission of drinking water. Refer to Fig. 36.1 for description of Integrated and Two-Tier systems.



York: The decrease in total cost for the treatment of drinking water per ML of drinking water treated from 2019 to 2020 was attributed to the reclassification of some prior year capital expenditures.

Water

Average Age of Water Pipe (WATR809) and Number of Water Main Breaks per 100 Km of Water Distribution Pipe (WATR410)

Age of Water Distribution Pipe: Old pipes are usually in poor condition as a result of pipe corrosion, pipe materials (susceptible to fractures), and leakage at pipe joints and service connections which contributes to an increased frequency of water main breaks relative to newer systems that do not have such deficiencies. The practice of relining pipes has caused inconsistent reporting on the age of the pipe. Number of Water Main Breaks: Excludes service connections and hydrant leads.