LONG-TERM WATER CONSERVATION STRATEGY

2020 Annual Report on Activities and Accomplishments

BACKGROUND AND PROGRAM INITIATIVES

This Annual Report presents the Region's progress and results achieved in 2020 in implementation of the Long-Term Water Conservation Strategy (2016) programs and initiatives. Several programs were temporarily suspended due to the pandemic and have impacted 2020 results.

INDUSTRIAL COMMERCIAL AND INSTITUTIONAL (ICI) WATER USE

1 water audit conducted

5 ICI facilities granted incentives

OUTDOOR WATER CONSERVATION

83 WSIP* irrigation assessments

20 controller installations

17 trained Fusion Landscape Professionals

1 Fusion Landscape Design incentive granted

*Water Smart Irrigation Professional

NON-REVENUE WATER REDUCTION (NRW)

AWWA* has recommended that percentage NRW be discontinued as a key performance indicator (KPI). York Region will report on the new KPIs recommended using new AWWA Water Audit software in 2022.

Continued partnership with HydraTek on the IESO** Conservation Fund Project: *Reducing Municipal Water Loss and Energy through Pressure Management.*

2020 **1** local municipal site tested

*American Water Works Association
**Independent Electricity System Operator

WATER SYSTEM, CONSERVATION AND EFFICIENCY OUTREACH

200+ visits to **york.ca/longtermwater**, where York Region's Long-Term Water Conservation Strategy and annual progress reports are posted

68 social media posts related to water and wastewater

"*The Great Lakes & Water Conservation*" in-classroom presentation was delivered to **2** classes and engaged **57** newcomer adult participants

"*The Value of Water*" online presentation was delivered to **2** classes and engaged **50** newcomer adult participants

Most in-person education events and the York Children's Water Festival were cancelled in 2020 due to the pandemic.

SUSTAINABLE NEW DEVELOPMENT (SIP*, LEED®** AND SDIP***)

A program review of SIP and LEED® is currently underway.

13 buildings totaling **2,561** apartment units constructed through LEED® program

6 buildings totaling **1,174** units enrolled in program and are not yet constructed

2,556 single detached equivalent (SDE) units either Registered or Draft Approved through SIP

6,117 SDE units either Registered or Draft Approved through SDIP

*Servicing Incentive Program
**Leadership in Energy and Environmental Design
***Sustainable Development Incentive Program

WATER REUSE

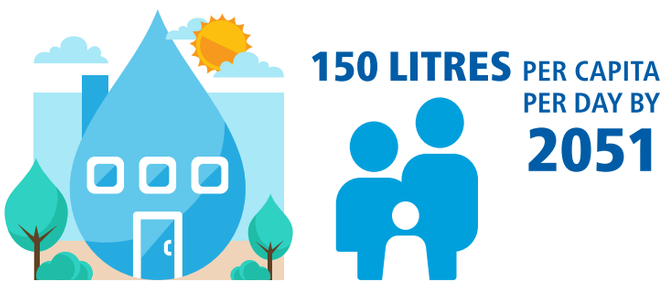
The Water Reuse Research Demonstration Project wrapped up in 2020 with a series of recommendations for next steps, including a centralized water reuse economic study.

For more information on our programs, please see our **2016 Long-Term Water Conservation Strategy**

2020 PROGRESS IN WATER CONSERVATION

RESIDENTIAL WATER SAVINGS TARGETS

To meet the Region's aspirational single-family residential target of 150 litres per capita per day by 2051 will require Regional programs, advancements in technology and updated provincial programs and legislation including water reuse applications.



WATER DEMAND ANALYSIS

Due to pandemic restrictions, residents worked and studied more from home. In 2020, there was a 9% increase in residential consumption and a 24% decrease in commercial consumption when compared to the average of 2017-2019.

Single-family residential consumption increased to 209 LCD in 2020 as shown in Figure 1 (below). The Region is trending towards continued water savings and decreasing litres per capita. However, it is uncertain at this time how the pandemic will impact residential water consumption in 2021 or in future years. The Region will continue to track these trends and re-calibrate targets and programming accordingly.

While there was an increase in single-family residential consumption in 2020, the total water supply volumes have been on a downward trend between 2011-2020, despite continued population growth as shown in Figure 2 (page 3).

Weather also plays a significant factor in seasonal water use, particularly in the summer months. Seasonal demand increases are often related to filling pools, lawn and garden watering, water parks and splash pads. Water demand can also be influenced by other factors such as building cooling and seasonal hospitality. As a rule of thumb, the hotter and drier the weather and the timing between hot and/or dry events, there is a greater amount of water consumed. The increase in consumption could also be attributed to a hot and dry summer season in 2020.

Figure 1: Single-Family Residential Water Consumption (litres per capita per day)

Due to pandemic restrictions, residents worked and studied more from home. In 2020, the Region's single-family residential consumption increased.

Figure 2: Population Growth vs. Total Water Demand (megalitres per day)

In 2018, water supply meter under-registration was discovered resulting in lower values reflected in 2017 and 2018.

2020 OVERALL ACHIEVEMENT

INTRA-BASIN TRANSFER VOLUMES

The Regional Municipality of York is submitting intra-basin transfer volumes in accordance with Schedule B of the following Permits to Take Water that relate to York Region's intra-basin transfer agreement between the Permit Holders and York Region, the Related Transferor, and that supply water to be transferred to York Region.

PTTW No. 1866-A6QHRP, issued to the City of Toronto on March 23, 2016

PTTW No. 0726-A6QJTA, issued to the City of Toronto on March 23, 2016

PTTW No. 6604-A6QKEB, issued to the City of Toronto on March 23, 2016

PTTW No. 0016-A6QKN2, issued to the City of Toronto on March 23, 2016

PTTW No.P-300-5092604438, issued to The Region of Peel on October 9, 2020

Schedule B, Condition (e) of the Permits to Take Water identified above and the notice of successful completion of the *Great Lakes Charter* Prior Notice and Consultation process requires York Region to report, no later than March 31 of every year, on monthly volumes and a calculated daily average amount of its intra-basin transfer in the preceding calendar year.

Table 3 lists total monthly volumes transferred from the Lake Ontario watershed into the Lake Huron watershed with return flow to Lake Ontario. In 2020, York Region's average intra-basin transfer amount was 28.7 MLD, well under the 105 MLD permitted limit until 2031.

The Region will continue to look for opportunities to extend the life of the intra-basin transfer beyond 2031.

Table 3: 2020 Intra-Basin Transfer Volumes

Month (2020)	Total Intra-Basin Transfer Volume (m^3)
January	791,142
February	721,600
March	768,434
April	751,647
May	911,797
June	1,048,354
July	1,207,439
August	978,341
September	876,710
October	838,506
November	767,283
December	803,006
Total	**10,464,258**