



Town of Newmarket Council Information Package

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Date: July 15, 2022

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Information Reports

The following Information Reports were distributed during this period:

- INFO-2022-17: Q1 2022 Investment Summary
Financial Services
June 10, 2022
- INFO-2022-18: 2021 Reserve and Reserve Funds Continuity
Financial Services
June 10, 2022
- INFO-2022-19: Conclusion of the Town's Long Standing Program
Registration and Facility Booking Contract
Information Technology, Recreation Services, Procurement
Services
June 28, 2022

On June 3, 2022 correspondence was sent regarding Affordable Housing in York Region – 2021 Measuring and Monitoring Decision of Regional Council. Please note that data on Table 4 of Attachment 1 has since been updated and is now available for reference in the document attached.

On May 26, 2022 Regional Council made the following decision:

1. The Regional Clerk circulate this report to the Ministry of Municipal Affairs and Housing, Building Industry and Land Development Association – York Chapter (BILD) and local municipalities.

Please contact Paul Bottomley at 1-877-464-9675 ext. 71530 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1

O: 1-877-464-9675 ext. 71300 | christopher.raynor@york.ca | york.ca

Our Mission: **Working together to serve our thriving communities – today and tomorrow**

AFFORDABLE HOUSING in YORK REGION 2021 MEASURING and MONITORING



MAY 2022



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Affordable Housing is a Key Component of Complete Communities

Complete communities include a full mix and range of housing options for people of all ages, abilities, and income levels. Communities with housing options that meet the needs of residents and workers have associated positive economic, environmental, and social outcomes. While affordability of new housing has always been a priority for York Region, rapidly rising house prices prior to and during the COVID pandemic has resulted in the Region declaring a Housing Affordability Crisis and forming a Housing Affordability Task Force. To help respond to the housing crisis, two strategies are under development: the Affordable Private Market Housing Implementation Plan will identify action, advocacy, and partnership approaches for the Region to take to help address affordability in the private market, and the Community Housing Master Plan will contemplate a 40-year plan to fund and develop more community and non-profit homes across York Region. Affordable housing monitoring through the exercise captured in this report provides a mechanism to gauge the impact of any actions taken to address the housing crisis and allows for results-based accountability decision making.

Affordable housing monitoring is conducted each year

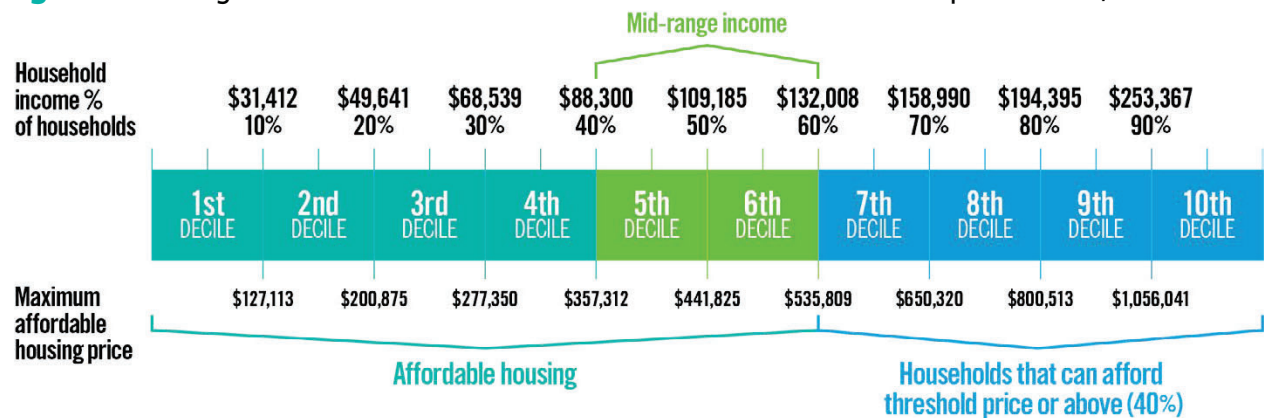
Provincial policy requires York Region to establish and implement affordable housing targets. The 2010 York Region Official Plan requires that 35% of new housing in Regional Centres and Key Development Areas, and 25% of new housing outside of those areas be affordable. Through the 2021 Draft York Region Official Plan, it is recommended that these policies be updated to require 35% of new housing in Regional Centres and Major Transit Station Areas, and 25% of new housing outside of those areas be affordable. The effect of the affordability policies in the existing and proposed Official Plan is to direct more affordability to high density nodes well serviced by transit. The update in terminology aligns with Provincial updates and direction.

The [York Region Affordable Housing Measuring and Monitoring Guidelines](#) establish a standardized approach to identify and measure the supply of new affordable units to monitor progress each year in meeting the Official Plan affordable housing targets and to help inform decision making around housing need. The methodology laid out in the Guidelines was last updated in 2018. The Guidelines will be reviewed through a continuous improvement lens for the next monitoring exercise, which will monitor the 2022 calendar year and be presented to Council in spring 2023. This review will examine affordable housing targets, the methodology to set the affordable housing thresholds, and the approach to monitoring new units.

Maximum affordable housing thresholds are calculated annually for rental and ownership tenures

Affordable housing thresholds are calculated annually for both ownership and rental units, based on Provincial legislation and definitions in the York Region context. The thresholds provide the upper limits of what is considered “affordable” from a land use planning perspective. Ownership thresholds are used throughout this report to determine the affordability of both new high density and ground related ownership housing supply. The affordable threshold for ownership housing is the maximum price that households at the sixth decile of the income distribution can afford to pay and includes the cost of a mortgage, mortgage insurance, and property taxes. It is assumed that the minimum allowable down payment is provided¹ and that the Bank of Canada posted rate for a 5-year fixed mortgage is paid. As displayed in **Figure 1**, the maximum ownership threshold for York Region in 2021 is \$535,809 and based on a household income of \$132,008.

¹ For CMHC-insured mortgage loans, individuals need a minimum down payment of 5% of the purchase price for the first \$500,000, 10% of the portion of the house price that is greater than \$500,000 and less than \$1 million, and 20% down for the portion of the purchase price that is over \$1 million.

Figure 1 York Region Household Income Distribution and Affordable Ownership Thresholds, 2021²

Source: York Region Planning and Economic Development, 2022. Based on Statistics Canada, Bank of Canada and Canada Mortgage and Housing Corporation data

The rental threshold identified in both the Affordable Housing Measuring and Monitoring Guidelines and the 2021 Draft Regional Official Plan is 125% of region-wide average market rent by bedroom type. This threshold is used for negotiating affordability in new developments. However, the affordability of new rental product can not be monitored due to data limitations. As such, this exercise monitors the supply of new purpose-built rental units year over year, including community housing units, private purpose-built rental units, and additional residential units (second suites) that have been registered with the local municipality.

2021 Local Maximum Affordable Ownership Housing Thresholds Range from \$431,994 to \$535,809

Table 1 provides the maximum local municipal affordable ownership thresholds for 2021. The ownership affordability thresholds are based on the Provincial definition set out in the Provincial Policy Statement, which benchmarks the maximum affordable house price to the 6th decile of the household income distribution (i.e., the highest household income of the lowest earning 60% of households). As average household incomes vary between local municipalities, ownership thresholds are calculated both on a region-wide basis and by local municipality. Where the local municipal threshold exceeds the regional threshold (\$535,809), the Regional threshold is used for affordable housing commitment and monitoring purposes in order to help achieve region-wide affordability. Where the local municipal threshold is below the regional threshold, the local municipal threshold is used for affordable housing monitoring purposes. This helps to best reflect the local municipal context and the incomes of residents, impacting how affordability is defined across York Region's nine local cities and towns.

Table 1: 2021 Affordable Ownership Thresholds

Local Municipality	Local Municipal Threshold	Thresholds Used for Commitments and Monitoring
Aurora	\$592,518	\$535,809
East Gwillimbury	\$571,438	\$535,809
Georgina	\$431,994	\$431,994
King	\$662,630	\$535,809
Markham	\$511,151	\$511,151
Newmarket	\$527,634	\$527,634
Richmond Hill	\$512,898	\$512,898
Vaughan	\$593,616	\$535,809
Whitchurch-Stouffville	\$565,647	\$535,809

Source: York Region Planning and Economic Development, 2022. Based on Statistics Canada, Bank of Canada and Canada Mortgage and Housing Corporation data

² The figure simplifies York Region's housing market and represents all households in York Region. The figure separates York Region's households into ten separate decile groups based on household income, each decile representing 10% of the total household population.

York Region's Housing Affordability Targets are not being achieved with only 4% Affordable New Units, Challenging Delivery of a Complete Communities

Table 2 displays the number and percentage of new affordable units in 2021 by local municipality and tenure based on the thresholds in **Figure 1**. For monitoring purposes, all rental units are coded as affordable due to data limitations of rents charged on new rental units. Average market rents reported by CMHC Rental Market Housing report are used to establish the affordable rental housing thresholds and are evaluated in **Table 5**.

Table 2: New Affordable Housing Monitoring Analysis, 2021

Local Municipality	Ownership Units		Rental Units	All Units	
	Total Units	Per cent Affordable	Total Rental Units	Total Units	Per cent Affordable
Aurora	142	0% (0 units)	5	147	3% (5 units)
East Gwillimbury	468	0% (0)	6	474	1% (6)
Georgina	216	0% (0)	12	228	5% (12)
King	167	0% (0)	-	167	0% (0)
Markham	685	0% (0)	16	701	2% (16)
Newmarket	359	0% (10)	29	388	10% (39)
Richmond Hill	713	0% (0)	-	713	0% (0)
Vaughan	3,720	0% (0)	200	3,920	5% (200)
Whitchurch-Stouffville	409	0% (0)	7	416	2% (7)
York Region	6,879	0% (10)	275	7,154	4% (285)

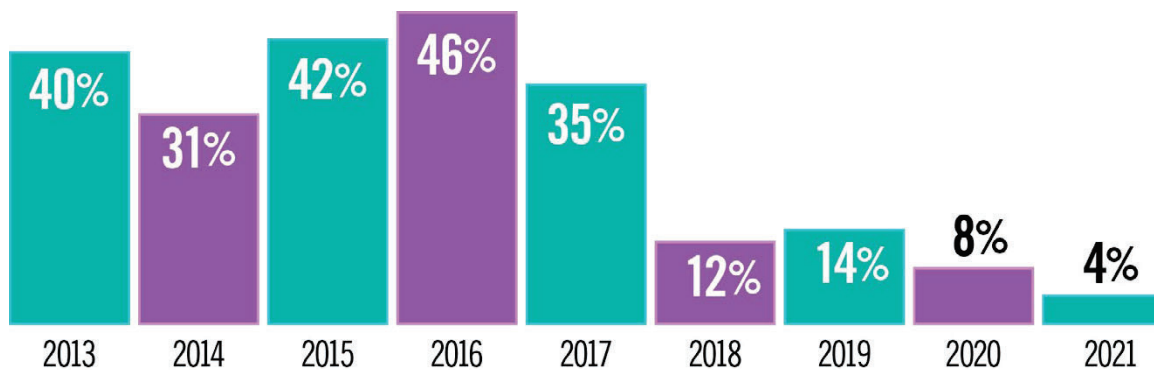
Source: York Region Planning and Economic Development, 2022. Based on Teranet, RealNet and Canada Mortgage and Housing Corporation data

In previous years, the monitoring exercise yielded information on the number of bedrooms in the high-density portion of the ownership analysis, allowing for commentary on the provision of affordable family-sized units. The data has been re-packaged by Altus Group, and bedroom count information is no longer available. High density unit monitoring has always been based on the median of the range of sale prices. Previous datasets provided the median sale price range by bedroom type, whereas the 2021 dataset provides sale price range by development, resulting in fewer units being captured as affordable as the smaller sized units are not isolated for monitoring purposes. Due to the repackaging of the high-density data, some smaller sized affordable units may not have been captured, resulting in an under estimation of overall affordability.

Declining Affordability Continued in 2021, Impacting the Region's Ability to Achieve Growth Targets

Figure 2 provides an overview of the percentage of new ownership and rental units below the affordable thresholds from 2013, when the Region began tracking affordability, to 2021. Affordability rates have continued a downward trend, with only 4% of new units identified as affordable in 2021. Similar to recent years, in 2021 affordable housing options were not consistently represented in all local municipalities and across all unit types and tenures.

Figure 2: New Units below York Region's Affordable Threshold, 2013 to 2021



During 2021 it was [identified](#) that the Region is not achieving growth targets, in part due to the lack of affordable housing options, which in turn impacts timing of infrastructure delivery and complete community initiatives. Council declared an [affordable housing crisis](#), and formed a [Housing Affordability Task Force](#) comprised of the Chairman and the mayors of each local municipality. The Region has shown strong financial and policy support to do its part to help address housing need. In order to enhance, focus and streamline support, comprehensive plans to address and fund housing need are being developed through the upcoming [Affordable Private Market Housing Implementation Plan](#) and [Community Housing Master Plan](#).

Historically some affordable high density affordable units were available for smaller sized households

Since affordable housing monitoring began in 2013, there had been increasing reliance on high density units to deliver ownership affordability. In 2013, 35% of affordable ownership units were found in the ground related stock; this has declined to 1% in 2019 and 2020. In 2021, 100% of the ownership affordability was found through ground related product, however; this only accounted for 10 back to back townhouse units in the Town of Newmarket. While house prices have been increasing disproportionately to incomes, some high-density units historically had remained under the affordability thresholds. For the first time, in 2021 we are reporting almost no affordability in the ownership market due to a combination of raising prices and the revised approach to monitoring units in the high density market because of changes to how sales data is reported by Altus. As explained earlier, previous monitoring exercises included a bedroom type analysis for the high-density stock. Bedroom type analysis monitoring began in 2014, when 48% of affordable units were 1-bedroom or less; this increased to 99% in 2019 and 2020. The increased reliance on smaller sized (1-bedroom or less) high density units to deliver ownership affordability options does not provide options for many residents, especially given the increased prevalence of work at home jobs during the pandemic and the associated need for space.

Purpose-built rental housing is key component to a healthy housing systems

As ownership housing prices rapidly increase, the importance of a healthy rental housing stock is heightened. As of 2016, York Region had the lowest proportion of its housing stock in rental tenure in the GTHA at 14%. At that time, 62% of the York Region rental stock was estimated to be in the secondary rental market, with 19% in high-rise developments and 43% in ground related units. Updated 2021 tenure statistics will be released and reported on later this year.

Due to data limitations, all rental units are reported as “affordable” for monitoring purposes. In 2021 there were 275 new purpose-built rental units, including 136 purpose built rental units in Vaughan, and 139 new registered secondary suites region wide. Since 2015, the rental stock has delivered an increasing proportion of the total affordable supply, from 4% in 2015 to 96% in 2021. This is not an indicator of an increase in rental supply, rather it is reflective of the decline in ownership affordability over the period. There has been an average of approximately 240 new purpose-built rental units³ built per year since monitoring began in 2013, with variations year over year based on completion dates for single developments. There are indicators of an increased interest in rental development, and 2,885 units are proposed in 15 buildings across the Region. The Draft York Region Official Plan includes a purpose-built rental target of 1,000 units per year, with local municipal targets based on share of growth over the time period.

Lower income households have fewer housing options

Per Provincial direction, affordable ownership housing thresholds and analysis are benchmarked to the sixth decile of the income distribution, which provides the highest household income of the lowest earning 60% of households. As the ownership housing thresholds provide an upper limit, they do not address the need for an appropriate range of housing for households with incomes below this limit. To understand housing need throughout the income spectrum, the Region reviews affordability using thresholds that are affordable to 40% and 50% of households (units that are measured to the fourth and fifth deciles on **Figure 1**). This evaluates depth of affordability for households below the upper threshold, and identifies that affordability only applies to the highest earning households being monitored.

Based on this analysis, the 2021 maximum affordable price for the lowest earning 50% of households was \$441,825, and no new units fell below this price, a decline from 2% in 2020 and a further indicator of the erosion of affordability over time.

Higher income households also face affordability challenges

To gain a better understanding of affordability challenges facing York Region residents and workers throughout the income spectrum, the Regional also evaluates affordability for higher income households (**Table 3**).

When looking at higher income households, the percentage of affordable ownership units rose to only 3% for the seventh income decile group, 43% for the eighth income decile group, and 76% for the ninth decile group. This analysis helps to better understand the housing affordability challenges facing regional residents, showing that many of the units that are affordable are only affordable to a portion of households in the upper income deciles. This analysis determines that gaps in the housing market exist even for households beyond those identified by the provincial as in need of affordable housing.

³ Includes new private purpose built, community housing and registered additional residential units .

Table 3: New Affordable Ownership Housing Supplemental Monitoring Analysis, 2021

Monitoring Decile	Maximum Gross Household Income	Maximum House Price (Threshold)	Percent Units Sold Under Threshold*
4 th Decile (Supplemental Analysis)	\$88,300	\$357,312	0%
5 th Decile (Supplemental Analysis)	\$109,185	\$441,825	0%
6 th Decile (Primary Analysis)	\$132,008	\$535,809	0.15%
7 th Decile (Supplemental Analysis)	\$158,990	\$650,320	3%
8 th Decile (Supplemental Analysis)	\$194,395	\$800,513	43%
9 th Decile (Supplemental Analysis)	\$253,367	\$1,056,041	76%

Source: York Region Planning and Economic Development, 2022. Based on Teranet, RealNet and Canada Mortgage and Housing Corporation data.
* Figures represent percent of units affordable within each decile. For example, 0.15% of new units were affordable to households in the 6th decile and 76% of new units were affordable to households in the 9th decile.

As is shown through this breakdown, there is no point at which there is equilibrium between the number of households to be housed and the availability of new affordable ownership housing. Even at the ninth decile, representing all but the highest earning 10% of households, only 76% of new housing is affordable. The remaining 24% of new housing in 2021 was only affordable to households earning over \$253,367.

New purpose-built rental units are limited

The affordability of new rental stock cannot be monitored due to data limitations regarding rents charged for new units. As such, all new rental units are currently reported as “affordable”, and this analysis monitors the supply of new purpose-built rental units. Most non-luxury purpose-built rental housing units would be affordable to mid-range income earners and are reasonably considered affordable in York Region. Rental units include community housing, registered secondary suites and purpose-built rental housing. In 2021, only 275 rental units were built in York Region. Of that total, 136 units were private purpose-built rental housing, and the remaining 139 were registered secondary suites. In 2021, there were no new community housing units built.

Rental condominiums also contribute to the rental stock, however, units in the secondary rental market are not monitored through this analysis, as those units have already been monitored for ownership affordability. In 2021, approximately 31% of condominium units that permit rentals were rented out in the secondary market (approximately 15,000 units, or approximately 25% of all condominiums in the Region). In general, the secondary market is more expensive than the purpose-built rental market and offers less security of tenure. In 2021 the average rents for units in the secondary market (\$2,214) exceeded the average affordable rental threshold (\$1,803).

2021 Affordable Rent Thresholds range from \$1,224 to \$2,270

The Provincial definition of rental affordability is based on 100% average market rent (AMR), as determined by the annual Canada Mortgage and Housing Corporation (CMHC) survey. In 2018, Regional Council endorsed the updated York Region Affordable Housing Measuring and Monitoring Guidelines and an updated rental threshold of 125% AMR by bedroom type. This higher threshold is a better reflection of rents that can reasonably be achieved in the private stock given that the existing stock, which is used to form the threshold, is generally aged and not reflective of current building code and amenity standards. Thresholds by bedroom type encourage affordability in all unit sizes, whereas the previous single threshold approach drove affordability to smaller unit sizes. The maximum 2021 rental thresholds range from \$1,224 for a bachelor to \$2,270 for a three-bedroom apartment (**Table 4**).

To help increase the purpose-built rental supply, Council approved development charge deferrals for affordable purpose-built rental buildings, subject to criteria. One of the criteria to access the program is that rents cannot exceed 175% AMR by bedroom type, which based on the 2021 data is affordable to households in the 3rd (bachelor units) through 6th (3+ bedroom units) income deciles.

Table 4: Private Purpose-Built Average Market Rents by Bedroom Type, 2021

Bedroom Type	100% AMR	125% AMR (Affordable Threshold)	175% AMR
Bachelor	\$979	\$1,224	\$1,713
1 Bedroom	\$1,328	\$1,660	\$2,324
2 Bedrooms	\$1,506	\$1,883	\$2,636
3+ Bedrooms	\$1,816	\$2,270	\$3,178

Source: CMHC Rental Market Report 2021. Private Apartment Rent, Table 1.1.2.

For the first time since the affordable housing monitoring exercise began in 2013, average market rents have marginally declined year over year for all but the larger 3+ bedroom units. Bachelor units declined from \$995 to \$979 (-1.6%), 1-bedroom units declined from \$1,369 to \$1,328 (-3.0%), 2-bedroom units declined from \$1,537 to \$1,506 (-2.0%) and 3+ bedroom units increased from \$1,743 to \$1,816 (4.2%). The decline in rents was not observed in other GTA municipalities.

The existing housing stock provides limited affordable housing options

When average resale prices are benchmarked against the affordable thresholds, there are limited affordable ownership options in all municipalities. **Table 5** provides at which decile resale housing is affordable on average by municipality and structure type. The only resale product that is affordable based on the primary analysis to the sixth decile of the income distribution is condominiums in East Gwillimbury. At the seventh decile, resale condominiums in King, Newmarket and Richmond Hill are also affordable on average, and at the eighth decile, condominiums are affordable in all municipalities. At the ninth decile (maximum household income of \$253,367), there are some ground related products that are affordable on average. Resale single detached housing is only affordable to the top earning 10% of households based on average prices by local municipality.

Table 5: Resale Housing Market and Ownership Affordability by Income Decile, 2021

Municipality	Single Family Detached	Semi-Detached	Town/Row	Condominium
Aurora		9th Decile	9th Decile	8th Decile
East Gwillimbury		9th Decile	9th Decile	6th Decile
Georgina		9th Decile	9th Decile	8th Decile
King				7th Decile
Markham				8th Decile
Newmarket			9th Decile	7th Decile
Richmond Hill				7th Decile
Vaughan			9th Decile	8th Decile
Whitchurch-Stouffville				8th Decile

Source: York Region Planning and Economic Development, 2022. Based on Teranet, RealNet/Altus and Canada Mortgage and Housing Corporation, and Toronto Regional Real Estate Board data.

For the 2021 analysis, approximately 75% of ownership sales were in the resale market. Lack of affordability in the resale market is one indicator of the rapidly rising price increases in the ownership housing market in comparison to increases in incomes.

Rapidly rising home prices contribute to income inequality

Between 2020 and 2021 the average price of a resale home increased by over 20%. Increases in home prices outpace increases in income, consumer goods and most other assets. As such, those that are homeowners have reaped financial benefits not available to non-owner households, thus increasing the divide between the rich and the poor. Future work to address housing challenges will focus on those that do not currently have a stake in the real estate market. This may include enhancing home ownership opportunities or working to increase the supply of purpose-built rental housing.

The York Region Official Plan and 10-Year Housing and Homelessness Plan provide a policy foundation to support more affordable housing options

The York Region Official Plan is being updated. The housing related policies in the updated Draft Regional Official Plan streamline and enhance existing policies to align with Provincial direction and incorporate best practices. This policy foundation is meant to support future work to address housing challenges. The Regional Official Plan focuses on land use planning related approaches to affordability and is supplemented by the Region's 10-Year Housing and Homelessness Plan, which provides a roadmap to help ensure residents have access to a range of housing options and services at all ages and stages of their lives.

Affordable Housing Implementation Plans are under development

To identify and potentially fund on the ground approaches to housing affordability, two plans are currently under development:

1. The Affordable Private Market Housing Implementation Plan will identify actions, advocacy and partnership approaches to address private market housing gaps in the short, medium, and long term.
2. The Community Housing Master Plan will contemplate a 40-year plan to fund and develop more community and non-profit homes across the Region.

These Plans will work hand in hand to help identify solutions to affordability challenges in both the community housing (non-profit) and private segments of the housing market.

Updates to the Affordable Housing Measuring and Monitoring Guidelines are planned for 2023

Updates to the methodology used for the housing affordability analysis communicated through this report are planned for 2023. The updated method will strive to provide a more fulsome analysis by type, size, tenure and degree of affordability. The update will also work to better tie affordability to household incomes and what people can afford. This will allow for better assessment of the impact of proposed approaches to address housing affordability that are identified through the Community Housing Master Plan and Affordable Private Market Housing Implementation Plan.

The three main elements of the monitoring exercise are listed below, and will be reviewed for potential updates:

- 1. Targets:** The Draft York Region Official Plan requires that 35% of new housing in Major Transit Station Areas and Regional Centres be affordable, and that 25% new housing outside of those areas be affordable. The targets will be reviewed for overall appropriateness and more nuanced approaches may be considered
- 2. Affordability Thresholds:** The method to establish the affordable housing thresholds will be reviewed, and the incorporation of utility and/or condo fees will be considered. Tying rental thresholds to household incomes rather than to market averages will be considered
- 3. Monitoring:** The method to monitor new ownership and rental units will be reviewed and updated approaches will be explored

The updated 2021 census base data is anticipated to be delivered in time to inform the affordable housing monitoring update, which will evaluate the 2022 calendar year and be made available in spring 2023.

AFFORDABLE HOUSING in YORK REGION 2021 MEASURING and MONITORING

For more information on housing affordability
in York Region please contact:

PLANNING SERVICES

1-877-464-9675 Extension 71508



220 Algonquin Boulevard East, Timmins, ON P4N 1B3
www.timmins.ca

June 9, 2022

Association of Municipalities of Ontario
200 University Avenue, Suite 801
Toronto, Ontario
M5H 3C6

Re: Mandatory Firefighter Certifications

Attached please find a resolution from the City of Timmins with respect to Mandatory Firefighter Certifications.

Sincerely,

Kristin Murray
Deputy Mayor

CC: Town of Newmarket
Ontario Small Urban Municipalities

LEGISLATIVE SERVICES		
INCOMING MAIL	REFD TO	COPY TO
JUN 21 2022		



TIMMINS

I'M IN. | J'Y TIENS. | ∇U

Office of the Mayor
Telephone: (705) 360-2611
E-mail: mayor@timmins.ca

The Corporation of the City of Timmins

RESOLUTION

Moved by Councillor Whissell

22-165

Seconded by Councillor Auger

BE IT RESOLVED THAT Council supports the attached resolution from the Town of Newmarket regarding Mandatory Firefighter Certifications.

CARRIED

CERTIFIED TRUE COPY
OF RESOLUTION 22-165



Steph Palmateer, City Clerk

Date: June 7, 2022

**Legislative Services**

Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7

clerks@newmarket.ca
tel.: 905-895-5193
fax: 905-953-5100

May 24, 2022

Sent via email: amo@amo.on.ca

Attn: Association of Municipalities Ontario

RE: Mandatory Firefighter Certifications

I am writing to advise you that at the Council meeting held on May 9, 2022, Council adopted the following recommendations regarding the above referenced matter:

Whereas municipal governments provide essential services to the residents and businesses in their communities; and,

Whereas the introduction of new provincial policies and programs can have an impact on municipalities; and,

Whereas municipal governments are generally supportive of efforts to modernize and enhance the volunteer and full-time fire services that serve Ontario communities; and,

Whereas the Association of Municipalities of Ontario (AMO) believes in principle that fire certification is a step in the right direction, it has not endorsed the draft regulations regarding firefighter certification presented by the Province; and,

Whereas municipalities and AMO are concerned the thirty-day consultation period was insufficient to fully understand the effects such regulations will have on municipal governments and their fire services; and,

Whereas fire chiefs have advised that the Ontario firefighter certification process will create additional training and new costs pressures on fire services; and,

Whereas the Ontario government has not provided any indication they will offer some form of financial support to deliver this service; and,

Whereas AMO, on behalf of municipal governments, in a letter to Solicitor General Jones dated February 25, 2022, made numerous comments and requests to address the shortcomings in the draft regulations.

**Legislative Services**

Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7

clerks@newmarket.ca
tel.: 905-895-5193
fax: 905-953-5100

Therefore be it resolved,

1. That the Town of Newmarket does hereby support AMO's recommendations; and,
2. That the Town of Newmarket does hereby call on the Solicitor General of Ontario to work with AMO, municipal governments and fire chiefs across Ontario to address the funding concerns raised so that municipalities can continue to offer high quality services to their communities; and,
3. That a copy of this Motion be sent to the Association of Municipalities of Ontario (AMO), the Ontario Small Urban Municipalities (OSUM), and all Ontario municipalities for their consideration

Yours sincerely,

A handwritten signature in black ink, appearing to read "Jaclyn Grossi".

Jaclyn Grossi
Acting Deputy Clerk

Copy:
Ontario Small Urban Municipalities
All Ontario municipalities

9



The Corporation of the
TOWNSHIP OF BALDWIN

11 Spooner Street
MCKERROW, ONTARIO POP 1M0
TEL: (705) 869-0225 FAX: (705) 869-5049
CLERK: Karin Bates – karin@baldwin.ca

MOVED BY: Bill Dowell

DATE: June 13, 2022

SECONDED BY: David Fairbairn

MOTION NO.: 22-044

NOW THEREFORE BE IT RESOLVED THAT: council supports the resolution adopted on May 9, 2022 by the Town of Newmarket regarding mandatory firefighter certifications.

Carried ✓ Defeated _____ Mayor ✓

RECORDED VOTE	FOR	AGAINST
Vern Gorham		
David Fairbairn		
Jo-Anne Boucher		
Ray Maltais		
Bert McDowell		



June 13, 2022

Town of Newmarket
395 Mulock Drive
P.O. Box 328, Station Main
Newmarket, Ontario L3Y 4X7

RE: Mandatory Firefighter Certifications

At its regular meeting of June 8, 2022, our Municipal Council passed the following resolution:

22-158 Moved by: Councillor L. Lévesque
 Seconded by: Councillor H. Perth

Whereas that the Council of the Corporation of the Township of Dubreuilville hereby wishes to receive and support the attached letter dated May 24, 2022 from the Town of Newmarket with regards to a request for support concerning Mandatory Firefighter Certifications.

Carried

Sincerely,

Brigitte Tremblay
Administrative Assistant

Enclosure Resolution No. 158


COUNCIL RESOLUTION



Moved By: Luc
 Seconded By: Hélène

DATE: June 8, 2022
 Resolution No. 22-158

Whereas that the Council of the Corporation of the Township of Dubreuilville hereby wishes to receive and support the attached letter dated May 24, 2022 from the Town of Newmarket with regards to a request for support concerning Mandatory Firefighter Certifications.

 <hr style="width: 100%;"/> <p>Carried</p>	<hr style="width: 100%;"/> <p>Defeated</p>	<hr style="width: 100%;"/> <p>Deferred</p>
---	---	---

RECORDED VOTE:	YES	NO
Councillor Chantal Croft	_____	_____
Councillor Hélène Perth	_____	_____
Councillor Luc Lévesque	_____	_____
Councillor Gérard Lévesque	_____	_____
Mayor Beverly Nantel	_____	_____

Declaration of Pecuniary Interest and General Nature Thereof:

**Legislative Services**

Town of Newmarket
 395 Mulock Drive
 P.O. Box 328 Station Main
 Newmarket, ON L3Y 4X7

clerks@newmarket.ca
 tel.: 905-895-5193
 fax: 905-953-5100

May 24, 2022

Sent via email: amo@amo.on.ca

Attn: Association of Municipalities Ontario

RE: Mandatory Firefighter Certifications

I am writing to advise you that at the Council meeting held on May 9, 2022, Council adopted the following recommendations regarding the above referenced matter:

Whereas municipal governments provide essential services to the residents and businesses in their communities; and,

Whereas the introduction of new provincial policies and programs can have an impact on municipalities; and,

Whereas municipal governments are generally supportive of efforts to modernize and enhance the volunteer and full-time fire services that serve Ontario communities; and,

Whereas the Association of Municipalities of Ontario (AMO) believes in principle that fire certification is a step in the right direction, it has not endorsed the draft regulations regarding firefighter certification presented by the Province; and,

Whereas municipalities and AMO are concerned the thirty-day consultation period was insufficient to fully understand the effects such regulations will have on municipal governments and their fire services; and,

Whereas fire chiefs have advised that the Ontario firefighter certification process will create additional training and new costs pressures on fire services; and,

Whereas the Ontario government has not provided any indication they will offer some form of financial support to deliver this service; and,

Whereas AMO, on behalf of municipal governments, in a letter to Solicitor General Jones dated February 25, 2022, made numerous comments and requests to address the shortcomings in the draft regulations.

**Legislative Services**

Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7

clerks@newmarket.ca
tel.: 905-895-5193
fax: 905-953-5100

Therefore be it resolved,

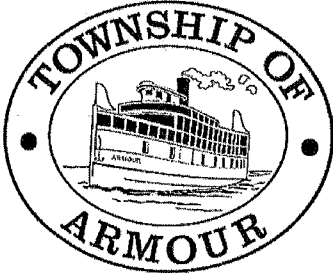
1. That the Town of Newmarket does hereby support AMO's recommendations; and,
2. That the Town of Newmarket does hereby call on the Solicitor General of Ontario to work with AMO, municipal governments and fire chiefs across Ontario to address the funding concerns raised so that municipalities can continue to offer high quality services to their communities; and,
3. That a copy of this Motion be sent to the Association of Municipalities of Ontario (AMO), the Ontario Small Urban Municipalities (OSUM), and all Ontario municipalities for their consideration

Yours sincerely,

A handwritten signature in black ink, appearing to read "Jaclyn Grossi".

Jaclyn Grossi
Acting Deputy Clerk

Copy:
Ontario Small Urban Municipalities
All Ontario municipalities



DISTRICT OF PARRY SOUND

56 ONTARIO STREET
PO BOX 533
BURK'S FALLS, ON
POA 1C0

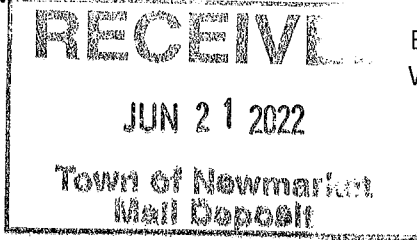
(705) 382-3332

(705) 382-2954

Fax: (705) 382-2068

Email: admin@armourtownship.ca

Website: www.armourtownship.ca



RECEIVED

JUN 21 2022

ACCOUNTING

June 15, 2022

Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON
L3Y 4X7

Re: Support Resolution

At its meeting held on June 14, 2022, the Township of Armour passed Resolution #20

A copy of Council's Resolution dated is attached for your consideration.

Sincerely,

Danika McCann
Administrative Assistant
(Enclosed)



CORPORATION OF THE TOWNSHIP OF ARMOUR

RESOLUTION

Date: June 14, 2022

Motion # 20

That the Council of the Township of Armour supports the Town of Newmarket in requesting that the Province work with AMO, municipal governments and fire chiefs across Ontario to address the funding concerns raised by the implementation of the new mandatory firefighter certification so that municipalities can continue to offer high quality fire services to their communities.

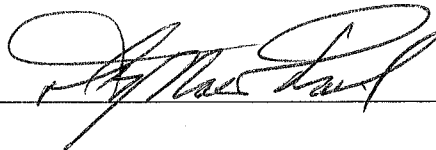
Moved by:

Blakelock, Rod	<input type="checkbox"/>
Brandt, Jerry	<input checked="" type="checkbox"/>
MacPhail, Bob	<input type="checkbox"/>
Ward, Rod	<input type="checkbox"/>
Whitwell, Wendy	<input type="checkbox"/>

Seconded by:

Blakelock, Rod	<input type="checkbox"/>
Brandt, Jerry	<input type="checkbox"/>
MacPhail, Bob	<input type="checkbox"/>
Ward, Rod	<input checked="" type="checkbox"/>
Whitwell, Wendy	<input type="checkbox"/>

Carried
Defeated



Declaration of Pecuniary Interest by:

Recorded vote requested by:

Recorded Vote:
Blakelock, Rod
Brandt, Jerry
MacPhail, Bob
Ward, Rod
Whitwell, Wendy

For	Opposed
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

ONTARIO ENERGY BOARD NOTICE TO CUSTOMERS OF ENBRIDGE GAS INC.

**Enbridge Gas Inc. has applied to dispose of
the balances of certain deferral and variance accounts.**

Learn more. Have your say.

If the application is approved as filed, a typical residential customer of Enbridge Gas Inc. will see the following one-time billing adjustment, effective January 1, 2023:

EGD Rate Zone (former Enbridge Gas Distribution Inc. customers)

- **Residential Rate 1 Sales Service and Direct Purchase** customers will see a one-time billing charge of \$5.01, effective January 1, 2023.

Union Rate Zone (former Union Gas Limited customers)

- **Union South Residential Rate M1 Sales Service** customers will see a one-time billing charge of \$9.34, effective January 1, 2023.
- **Union South Residential Rate M1 Direct Purchase** customers will see a one-time billing charge of \$1.91, effective January 1, 2023.
- **Union North-West Residential Rate 01 Sales Service and Direct Purchase** customers will receive a one-time billing credit of \$17.33, effective January 1, 2023.
- **Union North-East Residential Rate 01 Sales Service and Direct Purchase** customers will see a one-time billing charge of \$7.78, effective January 1, 2023.

Other customers, including businesses, may also be affected.

Under the OEB-approved Earnings Sharing Mechanism, Enbridge Gas Inc. is required to share with customers any earnings that are 150 basis points over the OEB-approved return on equity. Enbridge Gas Inc. says that its 2021 earnings were below the 150 basis point threshold and as a result it is not proposing to share any earnings with customers.

THE ONTARIO ENERGY BOARD WILL HOLD A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider Enbridge Gas's application. During this hearing, which could be an oral or written hearing, we will review Enbridge Gas's 2021 earnings and the deferral account balances that are requested for disposition. We will also hear questions and arguments from individuals that have registered to participate (called intervenors) in the OEB's hearing. At the end of this hearing, the OEB will decide whether to approve Enbridge Gas's request to dispose of the deferral account balances.

The OEB is an independent and impartial public agency. We make decisions that serve the public interest. Our goal is to promote a financially viable and efficient energy sector that provides you with reliable energy services at a reasonable cost.

BE INFORMED AND HAVE YOUR SAY

You have the right to information regarding this application and to be involved in the process.

- You can review Enbridge Gas's application on the OEB's website now
- You can file a letter with your comments, which will be considered during the hearing
- You can become an intervenor. As an intervenor, you can ask questions about Enbridge Gas's application and make arguments on whether the OEB should approve Enbridge Gas's request. Apply by **July 8, 2022** or the hearing will go ahead without you and you will not receive any further notice of the proceeding
- At the end of the process, you can review the OEB's decision and its reasons on our website

The OEB intends to consider cost awards in this proceeding that are in accordance with the Practice Direction on Cost Awards and only in relation to the following:

1) The review of the following deferral and variance accounts:

EGD Rate Zone (former Enbridge Gas Distribution Inc.) Accounts

- Storage and Transportation Deferral Account
- Transactional Services Deferral Account
- Unaccounted for Gas Variance Account
- Average Use True-Up Variance Account
- Deferred Rebate Account
- Transition Impact of Accounting Changes Deferral Account
- OEB Cost Assessment Variance Account
- Dawn Access Costs Deferral Account

Union Rate Zones (former Union Gas Limited) Accounts

- Upstream Transportation Optimization Deferral Account
- Unabsorbed Demand Costs Variance Account
- Short-Term Storage and Other Balancing Services
- Normalized Average Consumption Deferral Account
- Deferral Clearing Variance Account Variance Account
- OEB Cost Assessment Variance Account
- Parkway West Project Costs Deferral Account
- Lobo D/Bright C/Dawn H Compressor Project Costs Deferral Account
- Panhandle Reinforcement Project Costs Deferral Account
- Unaccounted for Gas Volume Variance Account
- Unaccounted for Gas Price Variance Account

Enbridge Gas Inc. Accounts

- Tax Variance - Accelerated Capital Cost Allowance – Enbridge Gas Inc.
- Integrated Resource Planning Operating Costs Deferral Account

- 2) The review of Enbridge Gas Inc.'s 2021 earnings, earnings sharing calculations and the 2021 Performance Scorecard.
- 3) The review of the methodology for the allocation and disposition of the deferral and variance account balances.

LEARN MORE

These proposed charges relate to Enbridge Gas's distribution services. The above referenced billing adjustment will appear as a separate line on your bill. Our file number for this case is **EB-2022-0110**. To learn more about this hearing, find instructions on how to file a letter with your comments or become an intervenor, or to access any document related to this case, please select the file number **EB-2022-0110** from the list on the OEB website: www.oeb.ca/notice. You can also phone our Public Information Centre at 1-877-632-2727 with any questions.

ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. Enbridge Gas has applied for a written hearing. The OEB will determine at a later date whether to proceed by way of a written or oral hearing. If you think an oral hearing is needed, you can write to the OEB to explain why by **July 8, 2022**.

PRIVACY

If you write a letter of comment, your name and the content of your letter will be put on the public record and the OEB website. However, your personal telephone number, home address and email address will be removed. If you are a business, all your information will remain public. If you apply to become an intervenor, all information will be public.

This rate hearing will be held under section 36 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B.



Ontario
Energy
Board | Commission
de l'énergie
de l'Ontario



Richard Wathy
 Technical Manager
 Regulatory Applications
 Regulatory Affairs

tel 519-365-5376
 Richard.Wathy@enbridge.com
 EGIRegulatoryProceedings@enbridge.com

Enbridge Gas Inc.
 P. O. Box 2001
 50 Keil Drive North
 Chatham, ON N7M 5M1

June 17, 2022

VIA RESS AND EMAIL

Nancy Marconi
 Registrar
 Ontario Energy Board
 2300 Yonge Street, 27th Floor
 Toronto, ON M4P 1E4

Dear Nancy Marconi:

**Re: Enbridge Gas Inc. (Enbridge Gas)
 Ontario Energy Board (OEB) File No.: EB-2022-0110
 2021 Utility Earnings and Disposition of Deferral & Variance Account
 Balances Application and Evidence**

Further to the submission filed on May 31, 2022, enclosed please find the following updated exhibits:

Exhibit	Correction
B-3-1, Page 2 and 6	<p>The 2021 Actual balance for Corporate Shared Services and Compensation and Benefits were misstated, resulting in an incorrect \$ and % change for those categories. There was no impact on Total Utility O&M.</p> <p>An updated Table 1 and Appendix A has been provided.</p>

In the event that you have any questions on the above or would like to discuss in more detail, please do not hesitate to contact me.

Sincerely,

(Original Digitally Signed)

Richard Wathy
 Technical Manager, Regulatory Applications

cc.: D. Stevens (Aird & Berlis)

EXHIBIT LIST

A – Overview and Introduction

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
A	1		Exhibit List
	2		Application
	3		Overview and Approvals Required

B- Utility Results and Earning Sharing

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
B	1		2021 Earnings Sharing Amount and Determination Process
		1	Return on Rate Base & Equity and Earning Sharing Determination
		2	Utility Income
		3	Utility Income Tax
		4	Utility Rate Base and Continuity Schedules
		5	Capital Structure and Cost of Capital
		6	Reconciliation of Audited Income to Corporate
	2	1	Delivery Revenue by Service Type and Rate Class
		2	Total Customers and Revenue by Service Type and Rate Class

B- Utility Results and Earning Sharing

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
B	2	3	Revenue from Regulated Storage and Transportation of Gas
		4	Other Revenue
	3	1	Operating and Maintenance Expense
		2	Capital Expenditure
		3	Summary of Capital Cost Allowance

C- Enbridge Gas Inc 2021 Deferral and Variance Accounts

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
C	1		Enbridge Gas Inc Deferral and Variance Accounts
		1	Deferral and Variance Actual and Forecast Balances
		2	Summary of Accounting Policy Changes Deferral Account
		3	Calculation of Bill C-97 Accelerated CCA Impact on TVDA

D - EGD Rate Zone Deferral and Variance Accounts

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
D	1		Deferral & Variance Accounts Requested for Clearance – EGD Rate Zone
		1	Breakdown of the Storage and Transportation Deferral Account
		2	Breakdown of Transactional Services Revenue by Type of Transaction
		3	2021 UAFVA
		4	Breakdown of the Average Use True-up Variance Account
		5	Storage RFP Letter
		6	Storage RFP Summary (Redacted)

E – Union Rate Zones Deferral and Variance Accounts

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
E	1		Deferral & Variance Accounts Requested for Clearance – Union Rate Zones
		1	Breakdown of Upstream Transportation Optimization Deferral Account
		2	Breakdown of Short Term Storage Deferral Account
			Appendix A – 2021 Storage Space and Deliverability
		3	Summary of Non-Utility Storage Balances

E – Union Rate Zones Deferral and Variance Accounts

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
E	1	4	Allocation of Short Term Peak Storage Revenues between Utility/Non-Utility
		5	Breakdown of Deferral Clearing Variance Account
		6	Calculation of Balances by Rate Class in the NAC Deferral Account
		7	Calculation of Allocation of Short Term Transportation Revenues to the Lobo D / Bright C / Dawn H Compressor Project Cost Deferral Account

F – Rate Allocation

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
F	1		Allocation and Disposition of 2020 Deferral and Variance Account Balances
		1	Split of EGI Account Balances to Rate Zones
	2	1	EGD - Unit Rate and Type of Service
		2	EGD - Balances to be Cleared
		3	EGD - Classification and Allocation of Deferral and Variance Account Balances
		4	EGD - Allocation by Type of Service
		5	EGD - Unit Rate by Type of Service
		6	EGD - Bill Adjustment for Typical Customers

F – Rate Allocation

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
F	3	1	Union – Unit Rate and Type of Service
		2	Union - Balances to be Cleared
		3	Union – Classification and Allocation of Deferral Variance Account Balances
		4	Union - Unit Rates for Disposition
		5	Union - Bill Adjustment for Typical Customer

G – OEB Scorecard

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
G	1		2021 Scorecard Results
		1	OEB Scorecard

H – IRP Annual Report

<u>Exhibit</u>	<u>Tab</u>	<u>Schedule</u>	<u>Contents</u>
H	1		IRP Annual Report and IRP Technical Working Group Report

/u

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act*, 1998, S.O. 1998, c.15 (Schedule. B);

AND IN THE MATTER OF an Application by Enbridge Gas Inc. for an order or orders clearing certain commodity and non-commodity related deferral or variance accounts.

APPLICATION

1. Enbridge Gas Distribution Inc. (referred to in the evidence as EGD, Enbridge or the Company) and Union Gas Limited (referred to in the evidence as Union or the Company) (together the Utilities) were Ontario corporations incorporated under the laws of the Province of Ontario carrying on the business of selling, distributing, transmitting and storing natural gas within the meaning assigned in the *Ontario Energy Board Act*, 1998 (the Act). In the August 30, 2018 EB-2017-0306/0307 Decision and Order (the MAADs Decision), the Ontario Energy Board (OEB) approved the amalgamation of the Utilities, as well as a five-year deferred rebasing term during which a price cap rate-setting model would apply.
2. Effective January 1, 2019 the Utilities amalgamated to become Enbridge Gas Inc. (Enbridge Gas). Following amalgamation, Enbridge Gas has maintained the existing rates zones of EGD and Union (the EGD, Union North West, Union North East and Union South rate zones).¹ Enbridge Gas has also maintained most of the existing deferral and variance accounts for each Rate Zone.

¹ Collectively the Union North West, Union North East and Union South rates zones are referred to as "Union rate zones". Union North West and Union North East are collectively referred to as "Union North".

3. Enbridge Gas, the Applicant, hereby applies to the OEB, pursuant to Section 36 of the *Ontario Energy Board Act*, 1998, for an Order or Orders approving the clearance or disposition of amounts recorded in certain deferral or variance accounts.

Earnings Sharing

4. In the MAADs Decision, the OEB approved, among other things, an asymmetrical earnings sharing mechanism (ESM) during the deferred rebasing period, where each year any earnings in excess of 150 basis points over the OEB-approved return on equity (ROE) would be shared 50/50 between the Utilities and ratepayers.
5. In 2021, Enbridge Gas's actual utility earnings did not exceed the OEB-approved ROE by more than 150 basis points. Accordingly, no ESM amount is proposed to be shared with ratepayers.

Enbridge Gas Inc.

6. The OEB has approved several deferral and variance accounts that relate to Enbridge Gas as a whole (and not to specific Rate Zone(s)). These accounts are listed at Exhibit C, Tab 1, Schedule 1.
7. Enbridge Gas proposes to clear the 2021 balance in the Tax Variance Deferral Account (TVDA). Enbridge Gas is not seeking approval to clear any part of the balance in the Accounting Policy Changes Deferral Account (APCDA), in the Covid-19 Emergency Incremental Cost Deferral Account (COVEICDA) and in the Incremental Capital Module Deferral Account (ICMDA). Details on these accounts are presented in this application for information purposes. The balances in these accounts will be brought forward for clearance in a future application.

EGD Rate Zone

8. As approved in the MAADs Decision and the 2019 Rates Case (EB-2018-0305), Enbridge Gas has maintained substantially the same deferral and variance accounts for the EGD rate zone as during its 2014-2018 Custom IR term.
9. Enbridge Gas seeks approval to clear the final balances of certain EGD rate zone deferral and variance accounts for 2021 as set out at Exhibit C, Tab 1, Schedule 1.

Union Rate Zones

10. As approved in the MAADs Decision and the 2019 Rates Case (EB-2018-0305), Enbridge Gas has maintained substantially the same deferral and variance accounts for the Union Rate Zones as during its 2014-2018 IR term.
11. Enbridge Gas seeks approval to clear the final balances of certain Union rate zones deferral and variance accounts for 2021 as set out at Exhibit C, Tab 1, Schedule 1.

Relief Requested

12. Enbridge Gas therefore applies to the OEB for such final, interim or other orders as may be necessary or appropriate for the clearance or disposition of the 2021 deferral and variance accounts requested in Exhibit C, Tab 1, Schedule 1. The proposed manner of disposition is described at Exhibit F. Enbridge Gas proposes to clear the balances in these accounts with the first available QRAM application following the OEB's approval, as early as January 1, 2023.
13. Enbridge Gas requests that certain information included at Exhibit D, Tab 1, Schedule 6 be treated as confidential under the OEB's Practice Direction on Confidential Filings. Equivalent information has been treated as confidential in prior deferral and variance account clearance proceedings.

14. Enbridge Gas requests that this proceeding be heard in writing.
15. Enbridge Gas further applies to the OEB pursuant to the provisions in the Act and the OEB's *Rules of Practice and Procedure* for such final, interim or other Orders and directions as may be appropriate in relation to the Application and the proper conduct of this proceeding.
16. This Application is supported by written evidence. This evidence may be amended from time to time as required by the OEB, or as circumstances may require.
17. The persons affected by this application are the customers resident or located in the municipalities, police villages and First Nations reserves served by Enbridge Gas, together with those to whom Enbridge Gas sells gas, or on whose behalf Enbridge Gas distributes, transmits or stores gas. It is impractical to set out in this application the names and addresses of such persons because they are too numerous.
18. Enbridge Gas requests that a copy of every document filed with the OEB in this proceeding be served on the Applicant and Applicant's counsel, as follows:

The Applicant:

Mr. Richard Wathy
Technical Manager, Regulatory Applications
Enbridge Gas Inc.

Address for personal service Enbridge Gas Inc.
P. O. Box 2001
50 Keil Drive North
Chatham, ON N7M 5M1

Telephone: 519-365-5376
Fax: (519) 436-4641
Email: Richard.Wathy@enbridge.com
 EGIRegulatoryproceedings@enbridge.com

- and -

The Applicant's counsel:

Mr. David Stevens
Aird & Berlis LLP

Address for personal service
and mailing address:

Brookfield Place, P.O. Box 754
Suite 1800, 181 Bay Street
Toronto, Ontario M5J 2T9

Telephone:

416-863-1500

Fax:

416-863-1515

Email:

dstevens@airdberlis.com

DATED: May 31, 2022, at Chatham, Ontario

ENBRIDGE GAS INC.

[Original digitally signed by]

Richard Wathy
Technical Manager, Regulatory
Applications

2021 DEFERRAL ACCOUNT DISPOSITION AND EARNINGS SHARING
OVERVIEW AND APPROVALS REQUESTED

1. Enbridge Gas Inc. (Enbridge Gas) is applying to the Ontario Energy Board (OEB) pursuant to section 36 of the *OEB Act* for approval to dispose and recover certain 2021 deferral and variance account final balances for Enbridge Gas, and the Enbridge Gas Distribution (EGD) and Union Gas (Union)¹ rate zones. Enbridge Gas is also presenting the 2021 earnings sharing mechanism (ESM) calculations for the amalgamated utility.

2. The evidence in this Application is organized as follows:
 - Exhibit A: Overview and Introduction
 - Exhibit B: 2021 Utility Results and Earnings Sharing Amount
 - Exhibit C: Enbridge Gas Inc. 2021 Deferral and Variance Accounts
 - Exhibit D: EGD Rate Zone Deferral and Variance Accounts
 - Exhibit E: Union Rate Zones Deferral and Variance Accounts
 - Exhibit F: Rate Allocation
 - Exhibit G: OEB Scorecard
 - Exhibit H: IRP Annual Report (to be filed at a later date)

3. Enbridge Gas proposes that the impacts which result from the disposition of 2021 deferral and variance account balances be implemented with the first available QRAM application following the OEB's approval, as early as January 1, 2023, to align with other rate changes implemented through the Quarterly Rate Adjustment Mechanism (QRAM).

¹ "Union rate zones" collectively refers to Union North West, Union North East and Union South.

1. Relief requested

4. Enbridge Gas seeks approval to clear the final balances of certain Enbridge Gas, EGD rate zone, and Union rate zones 2021 deferral and variance accounts. The balances of the 2021 deferral and variance accounts are set out at Exhibit C, Tab 1, Schedule 1. For ease of reference, a copy of Exhibit C, Tab 1, Schedule 1 is attached at Appendix A to this exhibit.
5. Explanations for the balances in each account are set out at Exhibit C (Enbridge Gas Inc.), Exhibit D (EGD rate zone) and Exhibit E (Union rate zones). The evidence also indicates which accounts Enbridge Gas does not seek to clear in this proceeding. The proposed clearance methodology for the accounts being cleared is set out at Exhibit F.
6. In the MAADs Decision (EB-2017-0306/0307), the OEB approved, among other things, an asymmetrical earnings sharing mechanism (ESM) during the 2019-2023 deferred rebasing period, where each year any earnings in excess of 150 basis points over the OEB-approved return on equity (ROE) would be shared 50/50 between Enbridge Gas and ratepayers.
7. Enbridge Gas's actual 2021 utility earnings did not exceed the OEB-approved ROE by more than 150 basis points. Accordingly, no ESM amount is proposed to be shared with ratepayers.

2. Disposition of deferral and variance accounts

8. Integration of the legacy billing systems for EGD and Union Gas enables Enbridge Gas to dispose of balances in the 2021 deferral and variance accounts as a one-time adjustment for all customers. Enbridge Gas proposes to dispose of the 2021 deferral

and variance accounts as a one-time adjustment for all general service, in-franchise contract and ex-franchise rate classes.

9. The proposed approach to the one-time adjustment is consistent between the EGD and Union rate zones and, subject to OEB approval as to timing, will be disposed of as part of the January 2023 bills that customers receive in February 2023.

3. Parkway west project costs account interim disposition

10. Enbridge Gas is seeking interim disposition of the 2021 balance in the Parkway West Project Costs Deferral Account (179-136), consistent with the 2016 to 2020 deferral and variance account disposition proceedings. In the 2016 deferral account proceeding, the OEB noted that “all parties agreed that the 2016 balance in the Parkway West Project Costs Account should be disposed of only on an interim basis to allow the OEB to perform a prudence review of the capital overspend prior to final disposition of the balance in the account.”² Consistent with this direction, Enbridge Gas will seek approval of the final disposition of this account as part of a subsequent proceeding when all the project costs have been incurred and the prudence of the project costs are assessed.

² EB-2017-0091 Updated Settlement Agreement Proposal, page 12.

				<u>ENBRIDGE GAS</u> <u>DEFERRAL & VARIANCE ACCOUNT</u> <u>ACTUAL & FORECAST BALANCES</u>			
				Col. 1	Col. 2	Col. 3	Col.4
				Forecast for clearance at January 1, 2023			
Line No.	Account Description	Account Acronym		Principal (\$000's)	Interest (\$000's)	Total (\$000's)	Reference
<u>EGD Rate Zone Commodity Related Accounts</u>							
1.	Storage and Transportation D/A	2021 S&TDA		7,942.5	97.0	8,039.5	D-1, Page 2
2.	Transactional Services D/A	2021 TSDA		(3,904.1)	(35.4)	(3,939.6)	D-1, Page 4
3.	Unaccounted for Gas V/A	2021 UAFVA		753.9	4.5	758.4	D-1, Page 6
4.	Total commodity related accounts			4,792.2	66.2	4,858.4	
<u>EGD Rate Zone Non Commodity Related Accounts</u>							
5.	Average Use True-Up V/A	2021 AUTUVA		14,934.3	135.5	15,069.8	D-1, Page 10
6.	Gas Distribution Access Rule Impact D/A	2021 GDARIDA		-	-	-	D-1, Page 23
7.	Deferred Rebate Account	2021 DRA		4,359.4	53.5	4,412.9	D-1, Page 12
8.	Transition Impact of Accounting Changes D/A	2021 TIACDA		4,435.8	-	4,435.8	D-1, Page 1
9.	Electric Program Earnings Sharing D/A	2021 EPESDA		-	-	-	D-1, Page 23
10.	Open Bill Revenue V/A	2021 OBRVA		-	-	-	D-1, Page 23
11.	Ex-Franchise Third Party Billing Services V/A	2021 EXFTPBBSVA		-	-	-	D-1, Page 23
12.	RNG Injection Service V/A	2021 RNGISVA		-	-	-	D-1, Page 23
13.	OEB Cost Assessment V/A	2021 OEBCAVA		2,550.3	31.5	2,581.8	D-1, Page 13
14.	Dawn Access Costs D/A	2021 DACDA		1,968.0	17.9	1,985.9	D-1, Page 16
15.	Pension and OPEB Forecast Accrual vs. Actual Cash Payment Di	2021 P&OPEBFAVACPDVA		-	-	-	D-1, Page 23
16.	Total EGD Rate Zone (for clearance)			33,040.0	304.5	33,344.6	
<u>Union Rate Zones Gas Supply Accounts</u>							
				<u>OEB Account Number</u>			
17.	Upstream Transportation Optimization	179-131	2021	8,616.3	78.2	8,694.5	E-1, Page 6
18.	Spot Gas Variance Account	179-107	2021	-	-	-	E-1, Page 58
19.	Unabsorbed Demand Costs Variance Account	179-108	2021	(1,665.6)	(28.3)	(1,693.9)	E-1, Page 1
20.	Base Service North T-Service TransCanada Capacity	179-153	2021	83.5	0.9	84.4	E-1, Page 52
21.	Total Gas Supply Accounts			7,034.2	50.8	7,085.0	
<u>Union Rate Zones Storage Accounts</u>							
22.	Short-Term Storage and Other Balancing Services	179-70	2021	3,576.9	32.5	3,609.4	E-1, Page 8
<u>Union Rate Zones Other Accounts</u>							
23.	Normalized Average Consumption	179-133	2021	18,997.4	239.4	19,236.8	E-1, Page 13
24.	Deferral Clearing Variance Account	179-132	2021	(3,120.4)	(45.3)	(3,165.7)	E-1, Page 21
25.	OEB Cost Assessment Variance Account	179-151	2021	907.1	11.4	918.5	E-1, Page 49
26.	Unbundled Services Unauthorized Storage Overrun	179-103	2021	-	-	-	E-1, Page 58
27.	Gas Distribution Access Rule Costs	179-112	2021	-	-	-	E-1, Page 58
28.	Conservation Demand Management	179-123	2021	-	-	-	E-1, Page 58
29.	Parkway West Project Costs	179-136	2021	(603.3)	(6.4)	(609.7)	E-1, Page 25
30.	Brantford-Kirkwall/Parkway D Project Costs	179-137	2021	(45.0)	(0.4)	(45.4)	E-1, Page 29
31.	Lobo C Compressor/Hamilton-Milton Pipeline Project Costs	179-142	2021	24.0	0.4	24.4	E-1, Page 41
32.	Lobo D/Bright C/Dawn H Compressor Project Costs	179-144	2021	(112.1)	(3.6)	(115.7)	E-1, Page 44
33.	Burlington-Oakville Project Costs	179-149	2021	(51.0)	(0.5)	(51.5)	E-1, Page 47
34.	Panhandle Reinforcement Project Costs	179-156	2021	(3,162.0)	(35.9)	(3,197.9)	E-1, Page 53
35.	Sudbury Replacement Project	179-162	2021	-	-	-	E-1, Page 58
36.	Parkway Obligation Rate Variance	179-138	2021	-	-	-	E-1, Page 58
37.	Unauthorized Overrun Non-Compliance Account	179-143	2021	-	-	-	E-1, Page 58
38.	Pension and OPEB Forecast Accrual vs. Actual Cash Payment Di	179-157	2021	-	(1,345.6)	(1,345.6)	E-1, Page 56
39.	Unaccounted for Gas Volume Variance Account	179-135	2021	20,501.3	176.9	20,678.2	E-1, Page 31
40.	Unaccounted for Gas Price Variance Account	179-141	2021	3,358.3	31.8	3,390.1	E-1, Page 38
41.	Total Other Accounts			36,694.3	(977.8)	35,716.5	
42.	Total Union Rate Zones (for clearance)			47,305.4	(894.6)	46,410.8	
<u>EGI Accounts</u>							
43.	Earnings Sharing D/A	179-382	2021	-	-	-	C-1, Page 1
44.	Tax Variance - Accelerated CCA - EGI	179-383	2021	(19,162.6)	(227.2)	(19,389.8)	C-1, Page 12
45.	IRP Operating Costs Deferral Account	179-385	2021	57.7	0.5	58.2	C-1, Page 15
46.	IRP Capital Costs Deferral Account	179-386	2021	-	-	-	C-1, Page 1
47.	Expansion of Natural Gas Distribution Systems V/A	179-380	2021	-	-	-	C-1, Page 1
48.	Total EGI Accounts (for clearance)			(19,104.9)	(226.7)	(19,331.6)	
49.	Total Deferral and Variance Accounts (for clearance)			61,240.5	(816.7)	60,423.8	
<u>Not Being Requested for Clearance</u>							
50.	Accounting Policy Changes D/A - Pension - EGI	179-120	2021	169,431.8	-	169,431.8	C-1, Page 2
51.	Accounting Policy Changes D/A - Other - EGI	179-120	2019	(1,749.5)	(52.8)	(1,802.3)	C-1, Page 2
52.	Accounting Policy Changes D/A - Other - EGI	179-120	2020	(14,789.5)	(249.4)	(15,038.9)	C-1, Page 2
53.	Accounting Policy Changes D/A - Other - EGI	179-120	2021	(13,864.6)	(168.8)	(14,033.4)	C-1, Page 2
54.	Tax Variance - Integration Capital Additions - EGI	179-383	2020	(3,736.3)	(28.6)	(3,764.8)	C-1, Page 12
55.	Tax Variance - Integration Capital Additions - EGI	179-383	2021	(10,462.6)	(80.0)	(10,542.7)	C-1, Page 12
56.	Incremental Capital Module Deferral Account - EGD	2020 ICMDA	2020	(254.0)	(3.2)	(257.2)	C-1, Page 1
57.	Incremental Capital Module Deferral Account - EGD	2021 ICMDA	2021	175.5	2.0	177.5	C-1, Page 1
58.	Incremental Capital Module Deferral Account - UGL	179-159	2019	(6,869.6)	(196.1)	(7,065.7)	C-1, Page 1
59.	Incremental Capital Module Deferral Account - UGL	179-159	2020	(5,615.4)	(91.9)	(5,707.2)	C-1, Page 1
60.	Incremental Capital Module Deferral Account - UGL	179-159	2021	(14,353.4)	(147.2)	(14,500.6)	C-1, Page 1
61.	Impacts Arising from the COVID-19 Emergency D/A - EGI	2020 IACEDA	2020	1,377.5	20.3	1,397.8	C-1, Page 1
62.	Impacts Arising from the COVID-19 Emergency D/A - EGI	2021 IACEDA	2021	34.3	0.4	34.7	C-1, Page 1
63.	Total of Accounts not being requested for clearance			99,324.2	(995.3)	98,328.9	

2021 ENBRIDGE GAS INC. EARNINGS SHARING AMOUNT
AND DETERMINATION PROCESS

1. For the year ended December 31, 2021, Enbridge Gas Inc. (Enbridge Gas, or the Company) is not in an earnings sharing position, as its achieved return on rate base and return on equity are below the threshold required for sharing. The earnings sharing calculation is shown at Exhibit B, Tab 1, Schedule 1, while supporting schedules that show the calculation of utility rate base, utility income and taxes, and the utility capital structure components, are contained in the balance of the B Exhibits. Exhibit B, Tab 1, Schedule 6 sets out a reconciliation of audited income to corporate income.

2. The earnings sharing amount was determined in accordance with the following prescribed methodology as identified within the EB-2017-0306/0307 OEB Decision and Order, dated August 30, 2018, at pages 28 and 29, and within the EB-2017-0306 pre-filed evidence at Exhibit B, Tab 1, at pages 42 and 43:
 - if in any calendar year during the deferred rebasing term, Enbridge Gas's actual utility ROE is more than 150 basis points above the OEB-approved ROE for that year (updated annually by the OEB), then the resultant amount shall be shared equally (i.e., 50/50) between Enbridge Gas and its ratepayers;
 - for the purposes of the ESM, Enbridge Gas shall calculate its earnings using generally accepted accounting principles (GAAP) consistent with its external reporting, including the regulatory rules prescribed by the OEB from time to time;
 - all revenues and costs that would otherwise be included in a cost of service application shall be included in the earnings sharing calculation.

3. While the threshold or benchmark for Enbridge Gas's earnings sharing has changed from that of each legacy utility¹, the general process followed for calculating earnings sharing amounts is consistent with each utilities prior incentive regulation terms.
4. As articulated above, within Exhibit B, Tab 1, Schedule 1, the Company has calculated earnings for sharing in two ways for confirmation purposes.
5. In part A), a return on rate base method is shown, while in part B), a return on equity from a deemed equity embedded within rate base perspective is shown. Column 2 within the exhibit provides references indicating where additional evidence in support of the determination of the amounts in the calculation can be found. Column 3 contains results shown in millions of dollars, or percentages.

1. Part A)

6. The level of utility income, \$846.5 million (Line 4) divided by the level of utility rate base, \$14,216.1 million (Line 5) generates a utility return on rate base of 5.954% (Line 6).
7. When compared to the Company's required rate of return for ESM determination, of 6.167% (Line 7), as determined within the capital structure required in support of the determined rate base amount (inclusive of the 150 basis point deadband on ROE before earnings sharing is triggered), there is a resulting deficiency of 0.213% (Line 8) on total rate base.
8. As shown in Lines 9 through 11, the deficiency of 0.213% multiplied by the rate base of \$14,216.1 million, produces a net under earnings or deficiency of \$30.3 million, which from a pre-tax perspective (\$30.3 million divided by the reciprocal, 73.5%, of

¹ Enbridge Gas Distribution Inc. (EGD) and Union Gas Limited (Union).

the corporate tax rate which is 26.5%), results in a \$41.2 million gross amount of under earnings, and therefore nothing to be shared equally between ratepayers and the Company. Column 2 provides supporting evidence references.

2. Part B) (Confirming the Calculated Earnings Sharing)

9. Net utility income applicable to common equity is first determined.
10. The \$889.6 million (Line 14) of utility income before income tax, less utility taxes of \$43.1 million (Line 19), produces the \$846.5 million of utility income used in part A) above (at Line 4).
11. In order to determine utility net income applicable to a deemed common equity percentage within rate base, all long term debt, short term debt and preference share costs must also be reduced against the part A) \$846.5 million utility income.
12. These reductions are shown at Lines 15, 16 and 17 which, along with the utility income tax reduction already mentioned and shown at Line 19, results in a net income applicable to common equity of \$473.3 million, shown at Line 20.
13. The \$473.3 million, divided by the deemed common equity level of \$5,117.8 million (Line 21, calculated as 36% of the \$14,216.1 million rate base) produces a return on equity of 9.249% (Line 23). When comparing the 9.249% achieved return on equity to the threshold ROE percentage of 9.840% (Line 22), which is the OEB-approved formula return on equity for 2021 of 8.340% plus the 150 basis point deadband before sharing, there is a deficiency in ROE of 0.591% (Line 24).
14. The 0.591% multiplied by the common equity level of \$5,117.8 million (Line 21) produces a net under earnings or deficiency of \$30.3 million, which from a pre-tax perspective (\$30.3 million divided by the reciprocal, 73.5%, of the corporate tax

rate), results in a \$41.2 million gross amount of under earnings, and therefore nothing to be shared equally between ratepayers and the Company. Column 2 provides supporting evidence references.

3. Process Description

15. The calculation of utility earnings and any earnings sharing requirement starts with financial results contained within the Enbridge Gas corporate trial balance. The Company notes that corporate trial balance includes the elimination of transactions between each of the rate zones. This predominantly relates to the elimination of regulated and unregulated storage and transmission revenues that would have been reflected in the Union rate zones, offset by a corresponding elimination of gas costs that would have been reflected for the EGD rate zone. This reflects the fact that from a corporate perspective, EGD rate zone delivery revenues are contributing to the costs of Union rate zones regulated and unregulated storage and transmission services.
16. From there, in order to calculate the utility rate base, income, and capital structure results, and supporting evidence exhibits, various adjustments, regroupings or eliminations are required. This is accomplished by following and applying regulatory rules as prescribed by the OEB and the standards associated with cost of service rate related accounting processes. Examples are:
- determination of rate base amounts using the average of monthly averages value concept,
 - elimination of corporate interest expense due to the treatment of interest expense as embedded in the capital structure balanced to rate base; and,
 - elimination of corporate income taxes due to the determination of income taxes specific to utility results.

17. In addition, Enbridge Gas has made the appropriate adjustments in relation to non-standard legacy EGD and Union rate regulated items which the OEB has either decided in the past or are required in order to determine an appropriate utility return on equity. Examples are:

- rate base disallowance from EBRO 473 and 479 Decisions (Mississauga Southern Link project amounts),
- exclusion of non-utility or unregulated activities; and,
- elimination of approved shareholder incentives (such as Demand Side Management incentives, amounts related to Transactional Services, short-term storage, and net optimization incentives, and amounts related to Open Bill program incentives).

SUMMARY
RETURN ON RATE BASE & EQUITY & EARNINGS SHARING DETERMINATION
ENBRIDGE GAS INC.

ONTARIO UTILITY
FOR THE YEAR ENDED DECEMBER 31, 2021

Line No.	Col. 1 Description	Col. 2 Reference	Col. 3 Actual
1.	Part A) Return on Rate Base & Revenue (Deficiency) / Sufficiency		
			(\$Millions) & (%'s)
2.	Utility Income before Income Tax	(Ex. B, Tab 1, Sch. 2)	889.6
3.	Less: Income Taxes	(Ex. B, Tab 1, Sch. 3)	43.1
4.	Utility Income		846.5
5.	Utility Rate Base	(Ex. B, Tab 1, Sch. 4)	14,216.1
6.	Indicated Return on Rate Base %	(line 4 / line 5)	5.955%
7.	Less: Required Rate of Return %	(Ex. B, Tab 1, Sch. 5)	6.167%
8.	(Deficiency) / Sufficiency %		-0.213%
9.	Net Earnings (Deficiency) / Sufficiency	(line 5 x line 8)	(30.2)
10.	Provision for Income Taxes		(10.9)
11.	Gross Earnings (Deficiency) / Sufficiency	(line 9 / 73.5%)	(41.1)
12.	50% Earnings sharing to ratepayers	(if line 11 > 1, line 11 x 50%)	-
13.	Part B) Return on Equity & Revenue (Deficiency) / Sufficiency		
14.	Utility Income before Income Tax	(Ex. B, Tab 1, Sch. 2)	889.6
15.	Less: Long Term Debt Costs	(Ex. B, Tab 1, Sch. 5)	371.3
16.	Less: Short Term Debt Costs	(Ex. B, Tab 1, Sch. 5)	1.9
17.	Less: Cost of Preferred Capital	(Ex. B, Tab 1, Sch. 5)	0.0
18.	Net Income before Income Taxes		516.5
19.	Less: Income Taxes	(Ex. B, Tab 1, Sch. 3)	43.1
20.	Net Income Applicable to Common Equity	(line 18 - line 19)	473.4
21.	Common Equity	(Ex. B, Tab 1, Sch. 5)	5,117.8
22.	Approved ROE (including deadband before earning sharing) %	(Board-approved + 150bp)	9.840%
23.	Achieved Rate of Return on Equity %	(line 20 / line 21)	9.249%
24.	Resulting (Deficiency) / Sufficiency in Return on Equity %		-0.591%
25.	Net Earnings (Deficiency) / Sufficiency	(line 21 x line 24)	(30.2)
26.	Provision for Income Taxes		(10.9)
27.	Gross Earnings (Deficiency) / Sufficiency	(line 25 / 73.5%)	(41.1)
28.	50% Earnings sharing to ratepayers	(if line 27 > 1, line 27 x 50%)	-

<u>EGI UTILITY INCOME</u>						
<u>2021 ACTUAL</u>						
Line No.	Reference	Col. 1	Col. 2	Col. 3	Col. 4	
		Corporate	Unregulated Storage	Adjustments	Utility Income	
		(a)	(b)	(c)	(d) = (a)-(b)+(c)	
(\$Millions)						
1.	Gas sales and distribution	(Ex. B, Tab 2, Sch. 2)	4,513.2	-	(32.6) (i)	4,480.6
2.	Transportation	(Ex. B, Tab 2, Sch. 3)	143.0	0.4	(0.8) (ii)	142.0
3.	Storage	(Ex. B, Tab 2, Sch. 3)	159.7	153.6	(0.1) (iii)	6.0
4.	Other operating revenue	(Ex. B, Tab 2, Sch. 4)	64.3	1.8	(13.4) (iv)	49.1
5.	Other income	(Ex. B, Tab 2, Sch. 4)	7.2	-	(6.3) (viii)	0.9
6.	Total operating revenue		4,887.4	155.8	(53.1)	4,678.5
7.	Gas costs		2,146.2	20.2	(15.4) (i)	2,110.6
8.	Operation and maintenance	(Ex. B, Tab 3, Sch. 1)	938.6	18.5	(4.0) (v)	916.2
9.	Depreciation and amortization expense		676.8	14.9	(22.6) (vi)	639.3
10.	Fixed financing costs		6.3	-	0.5 (vii)	6.8
11.	Municipal and other taxes		117.9	1.8	-	116.1
12.	Cost of service		3,885.8	55.4	(41.5)	3,788.9
13.	Utility income before income taxes					889.6
14.	Income tax expense	(Ex. B, Tab 1, Sch. 3)				43.1
15.	Utility income					846.5

Notes on Adjustments:

(i)	Reclassification of Union rate zone optimization revenue as a cost of gas reduction	(15.4)
	Elimination of the UGL rate zone unregulated storage cost from EGD rate zone revenues	(17.2)
		<u>(32.6)</u>
(ii)	Elimination of the Union rate zone shareholder portion of net optimization activity (before tax)	(0.8)
(iii)	Elimination of the Union rate zone shareholder portion of net short-term storage revenue (before tax)	(0.1)
(iv)	Adjust EGD rate zone OBA costs to reflect EB-2013-0099 approved unit costs agreed to be used for determining net revenue	(4.3)
	Elimination of EGD rate zone Open Bill shareholder incentive	0.3
	Elimination of EGD rate zone shareholder portion of transactional service revenues	(1.8)
	Elimination of demand-side management incentive	(6.9)
	Elimination of EGD rate zone net revenue from ABC T-service, considered to be non-utility	(0.8)
		<u>(13.4)</u>
(v)	Elimination of donations	(3.6)
	Elimination of EB-2021-0204 Assurance of Voluntary Compliance amount	(0.1)
	Elimination of non-utility costs and expenses relating to support of the EGD rate zone ABC T-service program	(0.3)
		<u>(4.0)</u>
(vi)	Eliminate amortization of PPD (purchase price discrepancy)	(22.5)
	Eliminate depreciation on disallowed Mississauga Southern Link amounts (EBRO 473 & 479)	(0.1)
		<u>(22.6)</u>
(vii)	Interest on security deposits held during the year and included in elimination of corporate interest exp. Expense incurred to reduce bad debt. The average amount of the security deposit held during the year is applied as a reduction to the allowance for working capital in rate base	0.5
(viii)	Elimination of interest income from investments not included in utility rate base	(0.1)
	Elimination of interest income from affiliates	(1.6)
	Elimination of the revenue indemnification received from Enbridge Inc. related to a non-utility Corporate tax planning Part VI.1 tax transfer to EGI	(4.6)
		<u>(6.3)</u>

CALCULATION OF EGI UTILITY TAXABLE INCOME AND INCOME TAX EXPENSE
2021 ACTUAL

Line No.	Col. 1	Col. 2	Col. 3	
	Federal (\$Millions)	Provincial (\$Millions)	Combined (\$Millions)	
1.	Utility income before income taxes	889.6	889.6	
	Add			
2.	Depreciation and amortization	639.3	639.3	
3.	Accrual based pension and OPEB costs	37.6	37.6	
4.	Other non-deductible items	0.3	0.3	
5.	Total Add Back	677.2	677.2	
6.	Sub-total	1,566.9	1,566.9	
	Deduct			
7.	Capital cost allowance	829.4	829.4	
8.	Items capitalized for regulatory purposes	152.9	152.9	
9.	Amortization of share/debenture issue expense	0.4	0.4	
10.	Amortization of C.D.E. and C.O.G.P.E	-	-	
11.	Other	6.3	6.3	
12.	Cash based pension and OPEB costs	42.1	42.1	
13.	Total Deduction	1,031.1	1,031.1	
14.	Taxable income	535.8	535.8	
15.	Income tax rates	15.00%	11.50%	
16.	Tax provision excluding interest shield	80.4	61.6	142.0
	Tax shield on interest expense			
17.	Rate base	14,216.1		
18.	Return component of debt	2.62%		
19.	Interest expense	373.1		
20.	Combined tax rate	26.50%		
21.	Income tax credit			(98.9)
22.	Total utility income taxes			43.1

EGI UTILITY RATE BASE
2021 ACTUAL

Line No.	Col. 1 2021 Actual	Col. 2 2020 Actual
	(\$Millions)	(\$Millions)
<u>Property, Plant, and Equipment</u>		
1. Gross property, plant, and equipment	21,522.4	20,582.1
2. Accumulated depreciation	<u>(7,994.0)</u>	<u>(7,571.2)</u>
3. Net property, plant, and equipment	<u>13,528.4</u>	<u>13,010.8</u>
<u>Allowance for Working Capital</u>		
4. Materials and supplies	92.5	82.2
5. ABC receivable	(15.5)	(22.3)
6. Customer security deposits	(68.9)	(81.8)
7. Prepaid expenses	4.7	3.1
8. Balancing gas	59.5	59.5
9. Gas in storage	594.7	487.5
10. Working cash allowance	<u>20.9</u>	<u>23.0</u>
11. Total Working Capital	<u>687.7</u>	<u>551.2</u>
12. <u>Utility Rate Base</u>	<u><u>14,216.1</u></u>	<u><u>13,562.0</u></u>

EGI UTILITY PROPERTY, PLANT, AND EQUIPMENT
 SUMMARY STATEMENT - AVERAGE OF MONTHLY AVERAGES
2021 ACTUAL

Line No.	Col. 1 Gross Property, Plant, and Equipment (\$Millions)	Col. 2 Accumulated Depreciation (\$Millions)	Col. 3 Net Property, Plant, and Equipment (\$Millions)
EGD Rate Zone			
1. Underground storage plant	485.6	(148.5)	337.1
2. Distribution plant	9,640.8	(3,070.8)	6,570.0
3. General plant	660.6	(493.6)	167.0
4. Plant held for future use	1.7	(1.4)	0.2
5. EGD Rate Zone Total	<u>10,788.6</u>	<u>(3,714.3)</u>	<u>7,074.3</u>
Union Rate Zones			
6. Intangible plant	1.7	(1.3)	0.4
7. Local storage plant	32.0	(17.8)	14.2
8. Underground storage plant	831.3	(335.4)	495.9
9. Transmission plant	3,767.4	(1,188.6)	2,578.8
10. Distribution plant - Southern operations	3,529.2	(1,515.5)	2,013.7
11. Distribution plant - Northern and Eastern operations	2,134.6	(980.1)	1,154.5
12. General plant	437.6	(241.0)	196.7
13. Union Rate Zones Total	<u>10,733.8</u>	<u>(4,279.7)</u>	<u>6,454.1</u>
14. EGI Total	<u>21,522.4</u>	<u>(7,994.0)</u>	<u>13,528.4</u>

EGI UTILITY GROSS PLANT
YEAR END BALANCES AND AVERAGE OF MONTHLY AVERAGES
2021 ACTUAL

Line No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
		Opening Balance Dec.2020	Additions	Retirements	Closing Balance Dec.2021	Regulatory Adjustment	Utility Balance Dec.2021	Average of Monthly Averages
		(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)
EGD Rate Zone Underground Storage Plant								
1.	Land and gas storage rights (450/451)	47.6	1.3	-	48.9	(1.0)	47.9	46.6
2.	Structures and improvements (452)	31.5	0.6	-	32.1	(0.1)	32.0	31.5
3.	Wells (453)	70.0	22.4	-	92.4	-	92.4	71.0
4.	Well equipment (454)	12.6	0.7	-	13.4	-	13.4	12.7
5.	Field Lines (455)	115.4	12.3	-	127.7	-	127.7	115.9
6.	Compressor equipment (456)	159.7	36.4	-	196.2	(0.5)	195.7	164.3
7.	Measuring and regulating equipment (457)	11.2	-	-	11.2	-	11.2	11.2
8.	Base pressure gas (458)	32.4	-	-	32.4	-	32.4	32.4
9.	Sub-Total	480.5	73.8	-	554.3	(1.5)	552.7	485.6
EGD Rate Zone Distribution Plant								
10.	Renewable Natural Gas (461)	-	-	-	-	-	-	-
11.	Land (470)	53.7	0.5	-	54.2	-	54.2	54.0
12.	Offers to purchase (470)	-	-	-	-	-	-	-
13.	Land rights intangibles (471)	63.8	-	-	63.8	-	63.8	63.8
14.	Structures and improvements (472)	151.0	47.1	(4.7)	193.4	(0.3)	193.1	155.1
15.	Services, house reg & meter install. (473/474)	3,306.0	204.9	(9.9)	3,501.0	-	3,501.0	3,372.2
16.	Mains (475)	4,727.4	158.0	73.5	4,958.8	(2.2)	4,956.6	4,780.5
17.	NGV station compressors (476)	5.5	(0.3)	-	5.2	-	5.2	5.2
18.	Measuring and regulating equip. (477)	684.7	22.6	(8.8)	698.5	(0.5)	698.0	693.5
19.	Meters (478)	519.6	29.0	(21.3)	527.3	-	527.3	516.5
20.	Sub-Total	9,511.7	461.7	28.9	10,002.2	(3.1)	9,999.2	9,640.8
EGD Rate Zone General Plant								
21.	Lease improvements (482)	0.1	(0.0)	-	0.1	(0.2)	(0.1)	(0.1)
22.	Office furniture and equipment (483)	21.0	(0.2)	-	20.7	-	20.7	20.5
23.	Transportation equipment (484)	61.7	5.1	(1.4)	65.4	(0.1)	65.4	59.4
24.	NGV conversion kits (484)	2.9	(0.0)	-	2.9	-	2.9	2.8
25.	Heavy work equipment (485)	20.2	2.9	-	23.1	-	23.1	20.3
26.	Tools and work equipment (486)	59.3	0.6	-	59.8	-	59.8	58.4
27.	Rental equipment (487)	1.8	(0.0)	-	1.8	-	1.8	1.8
28.	NGV rental compressors (487)	20.2	(12.4)	-	7.8	-	7.8	19.2
29.	NGV cylinders (484 and 487)	1.0	(0.4)	-	0.6	-	0.6	0.6
30.	Communication structures & equip. (488)	3.7	(0.1)	(1.8)	1.8	-	1.8	2.6
31.	Computer equipment (490)	32.1	2.3	(7.2)	27.1	-	27.1	30.3
32.	Software Acquired/Developed (491)	254.3	3.5	(23.5)	234.2	-	234.2	243.4
33.	CIS (491)	127.1	10.9	(124.1)	13.8	-	13.8	111.2
34.	WAMS (489)	92.1	(2.2)	-	89.9	-	89.9	90.0
35.	Sub-Total	697.4	9.8	(158.0)	549.2	(0.3)	548.9	660.6

EGD Rate Zone Plant held for future use

36.	Inactive services (102)	1.7	-	-	1.7	-	1.7	1.7
37.	EGD Rate Zone Total	10,691.2	545.3	(129.1)	11,107.3	(4.8)	11,102.5	10,788.6

Union Rate Zones Intangible Plant

38.	Franchises and consents (401)	1.2	-	-	1.2	-	1.2	1.2
39.	Other intangible plant (402)	0.5	-	-	0.5	-	0.5	0.5
40.	Sub-Total	1.7	-	-	1.7	-	1.7	1.7

Union Rate Zones Local Storage Plant

41.	Land (440)	0.0	-	-	0.0	-	0.0	0.0
42.	Structures and improvements (442)	5.2	0.7	-	5.9	-	5.9	5.2
43.	Gas holders - storage (443)	4.6	0.8	-	5.4	-	5.4	4.6
44.	Gas holders - equipment (443)	20.2	0.0	-	20.2	-	20.2	20.2
45.	Regulatory Overheads	1.8	0.3	-	2.1	-	2.1	1.9
46.	Sub-Total	31.8	1.8	-	33.6	-	33.6	32.0

Union Rate Zones Underground Storage Plant

47.	Land (450)	7.2	2.4	-	9.6	-	9.6	7.3
48.	Land rights (451)	32.0	-	-	32.0	-	32.0	32.0
49.	Structures and improvements (452)	69.3	0.9	-	70.2	-	70.2	69.4
50.	Wells (453)	48.0	1.1	-	49.1	-	49.1	48.5
51.	Field Lines (455)	50.6	0.5	-	51.1	-	51.1	50.8
52.	Compressor equipment (456)	470.1	2.9	-	473.0	-	473.0	470.6
53.	Measuring and regulating equipment (457)	86.4	(23.6)	-	62.8	-	62.8	85.5
54.	Base pressure gas (458)	36.2	-	-	36.2	-	36.2	36.2
55.	Regulatory Overheads	18.1	3.6	-	21.7	-	21.7	19.4
56.	Sub-Total	817.9	(12.1)	-	805.8	-	805.8	819.7

Union Rate Zones Transmission Plant

57.	Land (460)	82.2	2.5	-	84.7	-	84.7	82.6
58.	Land rights (461)	67.5	0.9	-	68.3	-	68.3	67.6
59.	Structures & improvements (462/463/464)	166.3	0.8	-	167.1	-	167.1	166.3
60.	Mains (465)	1,954.5	61.9	(4.1)	2,012.3	-	2,012.3	1,963.6
61.	Compressor equipment (466)	942.6	3.0	-	945.7	-	945.7	943.4
62.	Measuring & regulating equipment (467)	321.0	45.0	-	366.0	-	366.0	325.7
63.	Line Pack Gas	7.5	0.0	-	7.5	-	7.5	7.5
64.	Regulatory Overheads	200.1	31.4	-	231.5	-	231.5	210.7
65.	Sub-Total	3,741.6	145.5	(4.1)	3,883.1	-	3,883.1	3,767.4

Union Rate Zones Distribution Plant - Southern Operations

66.	Land (470)	12.6	4.1	-	16.7	-	16.7	15.3
67.	Land rights (471)	8.9	0.2	-	9.1	-	9.1	8.9
68.	Structures and improvements (472)	139.6	6.6	-	146.2	-	146.2	140.9
69.	Services - metallic (473)	128.4	2.4	(0.3)	130.5	-	130.5	129.2
70.	Services - plastic (473)	956.7	41.1	(1.8)	996.0	-	996.0	974.7
71.	Regulators (474)	97.1	13.4	(5.8)	104.8	-	104.8	102.6
72.	House regulators & meter installations (474)	76.9	10.3	-	87.2	-	87.2	78.1
73.	Mains - metallic (475)	581.8	103.5	(0.9)	684.3	-	684.3	598.0
74.	Mains - plastic (475)	706.4	44.4	(0.5)	750.3	-	750.3	721.0
75.	Measuring & regulating equipment (477)	60.3	13.1	-	73.4	-	73.4	61.4
76.	Meters (478)	373.3	21.4	(3.3)	391.4	-	391.4	380.8
77.	Regulatory Overheads	315.2	40.4	-	355.6	-	355.6	329.9
78.	Sub-total	3,457.2	300.8	(12.7)	3,745.4	-	3,745.4	3,540.8

Union Rate Zones Distribution Plant - Northern & Eastern Operations

79.	Land (470)	5.0	0.3	-	5.3	-	5.3	5.2
80.	Land rights (471)	10.6	0.3	-	10.9	-	10.9	10.7
81.	Structures and improvements (472)	68.6	2.9	-	71.4	-	71.4	69.1
82.	Services - metallic (473)	110.1	1.4	(0.2)	111.2	-	111.2	110.5
83.	Services - plastic (473)	489.6	17.0	(0.8)	505.8	-	505.8	495.6
84.	Regulators (474)	39.0	0.8	(2.1)	37.7	-	37.7	39.2
85.	House regulators & meter installations (474)	41.5	0.7	-	42.3	-	42.3	41.7
86.	Mains - metallic (475)	680.5	40.2	(0.8)	719.9	-	719.9	688.0
87.	Mains - plastic (475)	238.7	7.9	(0.2)	246.3	-	246.3	240.5
88.	Measuring & regulating equipment (477)	151.3	4.2	-	155.5	-	155.5	152.2
89.	Meters (478)	96.8	6.3	(0.9)	102.2	-	102.2	97.3
90.	Regulatory Overheads	173.1	32.5	-	205.6	-	205.6	184.5
91.	Sub-total	2,104.7	114.4	(5.0)	2,214.1	-	2,214.1	2,134.6

Union Rate Zones General Plant

92.	Land (480)	0.5	-	-	0.5	-	0.5	0.5
93.	Structures & improvements (482)	73.8	16.3	-	90.2	-	90.2	78.4
94.	Office furniture and equipment (483)	10.1	0.0	(0.9)	9.3	-	9.3	10.0
95.	Office equipment - computers (483)	129.2	53.0	(69.1)	113.1	-	113.1	140.1
96.	Transportation equipment (484)	64.6	6.4	(5.1)	65.9	-	65.9	64.7
97.	Heavy work equipment (485)	19.2	2.3	(0.5)	21.0	-	21.0	19.3
98.	Tools and work equipment (486)	39.2	2.2	(6.1)	35.3	-	35.3	38.8
99.	NGV fuel equipment (487)	3.2	1.3	-	4.5	-	4.5	3.3
100.	Communication equipment (488)	14.3	0.1	(4.9)	9.4	-	9.4	13.0
101.	Regulatory Overheads	64.3	15.8	(9.8)	70.3	-	70.3	69.4
102.	Sub-total	418.6	97.4	(96.5)	419.5	-	419.5	437.6
103.	Union Rate Zones Total	10,573.6	647.9	(118.3)	11,103.2	-	11,103.2	10,733.8
104.	EGI Total	21,264.7	1,193.2	(247.4)	22,210.5	(4.8)	22,205.7	21,522.4

EGI UTILITY PLANT
CONTINUITY OF ACCUMULATED DEPRECIATION
YEAR END BALANCES AND AVERAGE OF MONTHLY AVERAGES
2021 ACTUAL

Line No.	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
	Opening Balance Dec.2020	Additions	Retirements	Costs Net of Proceeds	Closing Balance Dec.2021	Regulatory Adjustment	Utility Balance Dec.2021	Average of Monthly Averages	
	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	
EGD Rate Zone Underground Storage Plant									
1.	Land and gas storage rights (451)	(26.6)	(0.5)	-	-	(27.1)	-	(27.1)	(26.8)
2.	Structures and improvements (452)	(2.3)	(0.6)	-	-	(2.9)	0.1	(2.8)	(2.5)
3.	Wells (453)	(14.3)	(1.2)	-	-	(15.5)	-	(15.5)	(14.8)
4.	Well equipment (454)	(7.8)	(0.8)	-	-	(8.6)	-	(8.6)	(8.1)
5.	Field Lines (455)	(32.2)	(1.8)	-	-	(34.0)	-	(34.0)	(33.1)
6.	Compressor equipment (456)	(53.2)	(4.5)	-	-	(57.7)	0.3	(57.4)	(55.0)
7.	Measuring and regulating equipment (457)	(7.9)	(0.3)	-	-	(8.3)	-	(8.3)	(8.1)
8.	Sub-Total	(144.2)	(9.7)	-	-	(154.0)	0.3	(153.6)	(148.5)
EGD Rate Zone Distribution Plant									
9.	Renewable Natural Gas (461)	-	-	-	-	-	-	-	-
10.	Land rights intangibles (471)	(5.7)	(0.8)	-	-	(6.5)	-	(6.5)	(6.1)
11.	Structures and improvements (472)	(42.9)	(10.2)	4.7	-	(48.3)	0.3	(48.0)	(42.7)
12.	Services, house reg & meter install. (473/474)	(1,104.3)	(76.4)	9.9	28.4	(1,142.4)	-	(1,142.4)	(1,126.2)
13.	Mains (475)	(1,295.9)	(109.4)	(73.5)	16.9	(1,461.9)	2.2	(1,459.7)	(1,322.2)
14.	NGV station compressors (476)	(3.3)	(0.3)	-	-	(3.6)	-	(3.6)	(3.4)
15.	Measuring and regulating equip. (477)	(252.4)	(15.1)	8.8	0.7	(257.9)	0.5	(257.4)	(254.4)
16.	Meters (478)	(303.2)	(41.0)	21.3	0.0	(323.0)	-	(323.0)	(315.7)
17.	Sub-Total	(3,007.7)	(253.1)	(28.9)	46.1	(3,243.6)	3.0	(3,240.5)	(3,070.8)
EGD Rate Zone General Plant									
18.	Lease improvements (482)	(0.1)	0.0	-	-	(0.1)	0.2	0.1	0.1
19.	Office furniture and equipment (483)	(12.6)	(1.9)	-	-	(14.4)	-	(14.4)	(13.4)
20.	Transportation equipment (484)	(32.2)	(5.3)	1.4	(0.1)	(36.3)	0.1	(36.3)	(33.7)
21.	NGV conversion kits (484)	0.4	(0.3)	-	-	0.2	-	0.2	0.3
22.	Heavy work equipment (485)	(6.0)	(0.6)	-	-	(6.6)	-	(6.6)	(6.3)
23.	Tools and work equipment (486)	(22.3)	(1.9)	-	-	(24.1)	-	(24.1)	(23.0)
24.	Rental equipment (487)	(1.1)	0.0	-	-	(1.1)	-	(1.1)	(1.1)
25.	NGV rental compressors (487)	(2.7)	0.2	-	-	(2.4)	-	(2.4)	(3.3)
26.	NGV cylinders (484 and 487)	(0.5)	(0.0)	-	-	(0.5)	-	(0.5)	(0.5)
27.	Communication structures & equip. (488)	(1.4)	(0.2)	1.8	-	0.1	-	0.1	(0.6)
28.	Computer equipment (490)	(31.6)	(1.9)	7.2	-	(26.4)	-	(26.4)	(29.8)
29.	Software Acquired/Developed (491)	(229.9)	(6.9)	23.5	-	(213.3)	-	(213.3)	(230.5)
30.	CIS (491)	(127.1)	(18.3)	124.1	-	(21.3)	-	(21.3)	(109.9)
31.	WAMS (489)	(38.4)	(8.1)	-	-	(46.4)	-	(46.4)	(42.0)
32.	Sub-Total	(505.5)	(45.2)	158.0	(0.1)	(392.7)	0.3	(392.5)	(493.6)
EGD Rate Zone Plant held for future use									
33.	Inactive services (102)	(1.4)	(0.0)	-	-	(1.4)	-	(1.4)	(1.4)
34.	EGD Rate Zone Total	(3,658.8)	(308.0)	129.1	46.0	(3,791.7)	3.6	(3,788.1)	(3,714.3)
Union Rate Zones Intangible Plant									
35.	Franchises and consents (401)	(0.9)	(0.1)	-	-	(1.0)	-	(1.0)	(1.0)
36.	Other intangible plant (402)	(0.3)	(0.2)	-	-	(0.5)	-	(0.5)	(0.3)
37.	Sub-Total	(1.2)	(0.3)	-	-	(1.5)	-	(1.5)	(1.3)

Union Rate Zones Local Storage Plant									
38.	Structures and improvements (442)	(2.7)	(0.1)	-	0.2	(2.7)	-	(2.7)	(2.7)
39.	Gas holders - storage (443)	(3.8)	(0.1)	-	-	(3.9)	-	(3.9)	(3.9)
40.	Gas holders - equipment (443)	(10.3)	(0.7)	-	0.0	(11.0)	-	(11.0)	(10.6)
41.	Regulatory Overheads	(0.5)	(0.1)	-	-	(0.6)	-	(0.6)	(0.5)
42.	Sub-Total	(17.3)	(1.0)	-	0.2	(18.2)	-	(18.2)	(17.8)
Union Rate Zones Underground Storage Plant									
43.	Land rights (451)	(18.1)	(0.7)	-	-	(18.8)	-	(18.8)	(18.4)
44.	Structures and improvements (452)	(42.1)	(1.7)	-	-	(43.9)	-	(43.9)	(43.0)
45.	Wells (453)	(33.0)	(1.2)	-	-	(34.2)	-	(34.2)	(33.6)
46.	Field Lines (455)	(28.4)	(1.2)	-	-	(29.6)	-	(29.6)	(29.1)
47.	Compressor equipment (456)	(155.6)	(12.6)	-	0.0	(168.2)	-	(168.2)	(161.9)
48.	Measuring & regulating equipment (457)	(44.3)	1.2	-	0.1	(43.0)	-	(43.0)	(45.4)
49.	Regulatory Overheads	(3.6)	(0.5)	-	-	(4.1)	-	(4.1)	(4.0)
50.	Sub-Total	(325.1)	(16.7)	-	0.1	(341.7)	-	(341.7)	(335.4)
Union Rate Zones Transmission Plant									
51.	Land rights (461)	(18.1)	(1.2)	-	-	(19.3)	-	(19.3)	(18.7)
52.	Structures & improvements (462/463/464)	(43.5)	(3.4)	-	0.1	(46.8)	-	(46.8)	(45.1)
53.	Mains (465)	(662.8)	(38.9)	4.1	0.4	(697.3)	-	(697.3)	(682.0)
54.	Compressor equipment (466)	(293.9)	(30.5)	-	0.0	(324.3)	-	(324.3)	(309.1)
55.	Measuring & regulating equipment (467)	(104.0)	(12.2)	-	0.0	(116.2)	-	(116.2)	(108.4)
56.	Regulatory Overheads	(22.8)	(5.2)	-	-	(28.0)	-	(28.0)	(25.3)
57.	Sub-Total	(1,145.1)	(91.4)	4.1	0.5	(1,231.9)	-	(1,231.9)	(1,188.6)
Union Rate Zones Distribution Plant - Southern Operations									
58.	Land rights (471)	(2.3)	(0.1)	-	-	(2.4)	-	(2.4)	(2.3)
59.	Structures and improvements (472)	(44.3)	(3.1)	-	0.0	(47.4)	-	(47.4)	(45.8)
60.	Services - metallic (473)	(107.3)	(3.6)	0.3	1.8	(108.8)	-	(108.8)	(108.7)
61.	Services - plastic (473)	(428.6)	(24.5)	1.8	6.8	(444.5)	-	(444.5)	(437.2)
62.	Regulators (474)	(41.7)	(4.8)	5.8	-	(40.8)	-	(40.8)	(43.1)
63.	House regulators & meter installations (474)	(30.1)	(2.2)	-	0.0	(32.3)	-	(32.3)	(31.2)
64.	Mains - metallic (475)	(363.6)	(16.8)	0.9	3.6	(375.9)	-	(375.9)	(370.5)
65.	Mains - plastic (475)	(285.4)	(16.6)	0.5	0.5	(300.9)	-	(300.9)	(293.3)
66.	Measuring & regulating equipment (477)	(21.5)	(2.4)	-	0.3	(23.6)	-	(23.6)	(22.4)
67.	Meters (478)	(106.8)	(14.5)	3.3	(0.1)	(118.0)	-	(118.0)	(112.0)
68.	Regulatory Overheads	(44.5)	(9.4)	-	-	(53.9)	-	(53.9)	(48.9)
69.	Sub-Total	(1,476.1)	(98.1)	12.7	13.1	(1,548.5)	-	(1,548.5)	(1,515.5)
Union Rate Zones Distribution Plant - Northern & Eastern Operations									
70.	Land rights intangibles (471)	(4.3)	(0.2)	-	-	(4.5)	-	(4.5)	(4.4)
71.	Structures and improvements (472)	(26.7)	(1.7)	-	-	(28.3)	-	(28.3)	(27.5)
72.	Services - metallic (473)	(78.6)	(3.6)	0.2	0.5	(81.4)	-	(81.4)	(80.2)
73.	Services - plastic (473)	(219.0)	(12.9)	0.8	0.4	(230.7)	-	(230.7)	(225.3)
74.	Regulators (474)	(15.6)	(1.8)	2.1	(0.0)	(15.3)	-	(15.3)	(16.1)
75.	House regulators & meter installations (474)	(16.5)	(1.2)	-	0.0	(17.7)	-	(17.7)	(17.1)
76.	Mains - metallic (475)	(348.4)	(20.7)	0.8	1.5	(366.9)	-	(366.9)	(358.3)
77.	Mains - plastic (475)	(114.2)	(5.7)	0.2	0.0	(119.6)	-	(119.6)	(117.0)
78.	Measuring & regulating equipment (477)	(77.3)	(5.7)	-	0.3	(82.7)	-	(82.7)	(80.0)
79.	Meters (478)	(25.5)	(3.9)	0.9	0.0	(28.6)	-	(28.6)	(26.9)
80.	Regulatory Overheads	(24.8)	(5.2)	-	-	(30.0)	-	(30.0)	(27.3)
81.	Sub-Total	(950.9)	(62.7)	5.0	2.7	(1,005.9)	-	(1,005.9)	(980.1)
Union Rate Zones General Plant									
82.	Structures & improvements (482)	(15.7)	(1.6)	-	-	(17.3)	-	(17.3)	(16.5)
83.	Office furniture and equipment (483)	(6.4)	(0.7)	0.9	0.0	(6.2)	-	(6.2)	(6.6)
84.	Office equipment - computers (483)	(90.5)	(25.2)	69.1	-	(46.6)	-	(46.6)	(96.3)
85.	Transportation equipment (484)	(48.1)	(8.7)	5.1	(1.2)	(52.8)	-	(52.8)	(50.8)
86.	Heavy work equipment (485)	(5.3)	(1.3)	0.5	-	(6.2)	-	(6.2)	(5.8)
87.	Tools and work equipment (486)	(20.8)	(2.4)	6.1	-	(17.2)	-	(17.2)	(21.1)
88.	NGV fuel equipment (487)	(1.4)	(0.1)	-	-	(1.6)	-	(1.6)	(1.5)
89.	Communication equipment (488)	(9.4)	(0.7)	4.9	-	(5.1)	-	(5.1)	(8.5)
90.	Regulatory Overheads	(31.0)	(6.3)	9.8	-	(27.5)	-	(27.5)	(33.9)
91.	Sub-Total	(228.7)	(47.1)	96.5	(1.2)	(180.5)	-	(180.5)	(241.0)
92.	Union Rate Zones Total	(4,144.3)	(317.4)	118.3	15.4	(4,328.1)	-	(4,328.1)	(4,279.7)
93.	EGI Total	(7,803.2)	(625.4)	247.4	61.4	(8,119.8)	3.6	(8,116.2)	(7,994.0)

EGI WORKING CAPITAL COMPONENTS
MONTH END BALANCES AND AVERAGE OF MONTHLY AVERAGES
2021 ACTUAL

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Line No.	Materials and Supplies	ABC Receivable	Customer Security Deposits	Prepaid Expenses	Balancing Gas	Gas in Storage	Working Cash Allowance	Total
	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)	(\$Millions)
1. January 1	87.5	(14.7)	(78.3)	(0.4)	59.5	657.3	20.9	731.8
2. January 31	88.2	(9.5)	(71.3)	(11.0)	59.5	558.1	20.9	634.7
3. February	88.6	(15.2)	(71.2)	(4.0)	59.5	426.1	20.9	504.6
4. March	89.8	(34.9)	(71.3)	3.7	59.5	325.3	20.9	392.8
5. April	92.4	(26.5)	(71.2)	7.0	59.5	308.0	20.9	389.9
6. May	92.8	(25.6)	(72.4)	6.7	59.5	360.6	20.9	442.4
7. June	94.4	(31.1)	(66.2)	7.5	59.5	475.2	20.9	560.1
8. July	95.7	(15.3)	(66.6)	4.0	59.5	569.9	20.9	668.0
9. August	98.4	(9.2)	(66.7)	9.0	59.5	664.2	20.9	776.0
10. September	91.9	(12.2)	(66.0)	11.8	59.5	762.0	20.9	867.8
11. October	93.4	2.2	(65.8)	13.3	59.5	984.0	20.9	1,107.4
12. November	94.8	3.5	(65.9)	8.6	59.5	926.4	20.9	1,047.7
13. December	91.4	(10.0)	(65.1)	(0.8)	59.5	895.1	20.9	990.9
14. Avg. of monthly avgs.	92.5	(15.5)	(68.9)	4.7	59.5	594.7	20.9	687.7

EGI SUMMARY OF CAPITAL STRUCTURE & COST OF CAPITAL
2021 ACTUAL

Line No.	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5 (Col. 1x Col. 3)
	Utility Capital Structure		Cost Rate	Return Component	Interest & Return
	Principal	Component			
	(\$Millions)	%	%	%	(\$Millions)
1. Long and Medium-Term Debt	8,505.3	59.83	4.37	2.612	371.3
2. Short-Term Debt	593.1	4.17	0.31	0.013	1.9
3. Total Debt	9,098.3	64.00		2.625	
4. Preference Shares	-	-	-	-	-
5. Common Equity	5,117.8	36.00	9.84	3.542	503.6
6. Total Rate Base	14,216.1	100.00		6.167	876.7

CALCULATION OF COST RATES
FOR EGI CAPITAL STRUCTURE COMPONENTS
2021 ACTUAL

Line No.		Col. 1	Col. 2	Col. 3
		Average of Monthly Averages		Carrying Cost
		(\$Millions)		(\$Millions)
	<u>Long and Medium-Term Debt</u>			
1.	Debt Summary	8,833.5		381.1
2.	Unamortized Finance Costs	(103.3)		-
3.	(Profit)/Loss on Redemption	-		-
4.		<u>8,730.2</u>		<u>381.1</u>
5.	Percentage Allocation of Debt to Unregulated	2.58%	<u>(224.9)</u>	<u>(9.8)</u>
6.	Net Regulated Long and Medium-Term Debt	<u>8,505.3</u>		<u>371.3</u>
7.	Calculated Cost Rate		<u>4.37%</u>	
	<u>Short-Term Debt</u>			
8.	Calculated Cost Rate		<u>0.31%</u>	
	<u>Preference Shares</u>			
9.	Preference Share Summary	-		-
10.	Unamortized Finance Costs	-		-
11.	(Profit)/Loss on Redemption	-		-
12.		<u>-</u>		<u>-</u>
13.	Calculated Cost Rate		<u>0.00%</u>	
	<u>Common Equity</u>			
14.	Board Formula ROE		8.34%	
15.	Threshold before earnings sharing		<u>1.50%</u>	
16.	ROE for earnings sharing determination		<u>9.84%</u>	

EGI SUMMARY STATEMENT OF PRINCIPAL
AND CARRYING COST OF
TERM DEBT
2021 ACTUAL

Line No.	Coupon Rate	Maturity Date	Col. 1	Col. 2	Col. 3
			Average of Monthly Averages Principal	Effective Cost Rate	Carrying Cost
			(\$Millions)		(\$Millions)
Medium Term Notes					
1.	8.85%	October 2, 2025	20.0	8.97%	1.8
2.	7.60%	October 29, 2026	100.0	8.09%	8.1
3.	6.65%	November 3, 2027	100.0	6.71%	6.7
4.	6.10%	May 19, 2028	100.0	6.16%	6.2
5.	6.05%	July 5, 2023	100.0	6.38%	6.4
6.	6.90%	November 15, 2032	150.0	6.95%	10.4
7.	6.16%	December 16, 2033	150.0	6.18%	9.3
8.	5.21%	February 25, 2036	300.0	5.18%	15.5
9.	4.77%	December 17, 2021	167.7	5.31%	8.9
10.	4.95%	November 22, 2050	200.0	4.99%	10.0
11.	4.95%	November 22, 2050	100.0	4.73%	4.7
12.	4.50%	November 23, 2043	200.0	4.20%	8.4
13.	3.15%	August 22, 2024	215.0	3.24%	7.0
14.	4.00%	August 22, 2044	215.0	3.89%	8.4
15.	4.00%	August 22, 2044	170.0	4.44%	7.5
16.	3.31%	September 11, 2025	400.0	3.62%	14.5
17.	2.50%	August 5, 2026	300.0	3.42%	10.3
18.	3.51%	November 29, 2047	300.0	3.53%	10.6
19.	2.37%	August 9, 2029	400.0	3.23%	12.9
20.	3.01%	August 9, 2049	300.0	3.03%	9.1
21.	2.90%	April 1, 2030	600.0	3.41%	20.4
22.	3.65%	April 1, 2050	600.0	3.67%	22.0
23.	2.35%	September 1, 2031	138.5	2.94%	4.1
24.	3.20%	September 1, 2051	124.0	3.22%	4.0
25.	8.65%	November 10, 2025	125.0	8.77%	11.0
26.	5.46%	September 11, 2036	165.0	5.49%	9.1
27.	4.85%	April 25, 2022	125.0	4.91%	6.1
28.	6.05%	September 2, 2038	300.0	6.10%	18.3
29.	5.20%	July 23, 2040	250.0	5.27%	13.2
30.	4.88%	June 21, 2041	300.0	4.92%	14.8
31.	3.79%	July 10, 2023	250.0	3.87%	9.7
32.	2.76%	June 2, 2021	83.3	2.85%	2.4
33.	4.20%	June 2, 2044	250.0	4.24%	10.6
34.	4.20%	June 2, 2044	250.0	4.27%	10.7
35.	3.19%	September 17, 2025	200.0	3.26%	6.5
36.	2.81%	June 1, 2026	250.0	2.87%	7.2
37.	3.80%	June 1, 2046	250.0	3.84%	9.6
38.	3.59%	November 22, 2047	250.0	3.64%	9.1
39.	2.88%	November 22, 2027	250.0	2.95%	7.4
40.			8,748.5		372.7
Long-Term Debentures					
41.	9.85%	December 2, 2024	85.0	9.910%	8.4
42.			85.0		8.4
43.	Total Term Debt		8,833.5		381.1

EGI UNAMORTIZED DEBT DISCOUNT AND EXPENSE
AVERAGE OF MONTHLY AVERAGES
2021 ACTUAL

Line No.	Col. 1	Unamortized Debt Discount and Expense
		(\$Millions)
1.	January 1	100.9
2.	January 31	99.8
3.	February	98.8
4.	March	97.7
5.	April	96.7
6.	May	95.6
7.	June	94.6
8.	July	93.5
9.	August	92.5
10.	September	121.8
11.	October	120.5
12.	November	119.2
13.	December	118.1
14.	Average of Monthly Averages	<u><u>103.3</u></u>

RECONCILIATION OF AUDITED EGI INCOME (PER FINANCIAL STATEMENTS)
 TO CORPORATE INCOME FOR UTILITY INCOME DETERMINATION PURPOSES
 2021 ACTUAL

Line no. (\$ millions)	Col. 1 Audited Income (as per Financial Statements)	Col. 2 Corporate Income (as per Utility Income Schedule)	Col. 3 Variance	Col. 4 Reference
Operating Revenues				
1. Gas sales and distribution	3,996.4	4,513.2		
2. Storage, transportation and other	896.7	-		
3. Transportation	-	143.0		
4. Storage	-	159.7		
5. Other operating revenue	-	64.3		
6. Other Income	42.9	7.2		
7. Total operating revenue	<u>4,936.0</u>	<u>4,887.4</u>	<u>(48.6)</u>	(a)
Operating Expenses				
8. Gas Costs	2,146.2	2,146.2	-	
9. Operation and maintenance	1,105.1	938.6	(166.5)	(b)
10. Depreciation and amortization expense	676.8	676.8	-	
11. Fixed financing costs	-	6.3	6.3	(c)
12. Municipal and other taxes	-	117.9	117.9	(d)
13. Cost of service	<u>3,928.1</u>	<u>3,885.8</u>	<u>(42.3)</u>	
14. Income before interest and income taxes	1,007.9	1,001.6	(6.3)	
15. Interest and financing expenses	393.9	-	(393.9)	(e)
16. Income before income taxes	614.0	1,001.6	387.6	
17. Income taxes	62.9	-	(62.9)	(f)
18. Net Income	<u>551.1</u>	<u>1,001.6</u>	<u>450.5</u>	

Col. 2 - Corporate income as reported in Exhibit B, Tab 1, Schedule 2, Column 1

a) Audited Total Operating Revenue	4,936.0
Reclassify pension related other revenue to O&M	(36.0)
Reclassify EGD rate zone Open Bill and ABC T-service O&M against program revenues in other revenue	(12.8)
Reclassify other expenses out of other income to O&M	0.2
Corporate Total Operating Revenue	<u>4,887.4</u>
b) Audited Operation and Maintenance	1,105.1
Reclassify pension related other revenue to O&M	(36.0)
Reclassify Municipal & Property Taxes out of O&M	(117.9)
Reclassify EGD rate zone Open Bill and ABC T-service O&M against program revenues in other revenue	(12.8)
Reclassify other expenses out of other income to O&M	0.2
Corporate Operation and Maintenance	<u>938.6</u>
c) Audited Fixed Financing Costs	-
Reclassify fixed financing costs from interest and financing expenses	6.3
Corporate Fixed Financing Costs	<u>6.3</u>
d) Audited Municipal and Other Taxes	-
Reclassify Municipal and other taxes included within O&M costs	117.9
Corporate Municipal and Other Taxes	<u>117.9</u>
e) Audited Interest and Financing expenses	393.9
Reclassify fixed financing costs from interest and financing expenses	(6.3)
Elimination of interest expense and the amortization of debt issue and discount costs which are determined through the regulated capital structure	(387.6)
Corporate Interest and Financing expenses	<u>-</u>
f) Audited Income Taxes	62.9
Elimination of corporate income taxes which will be calculated on a utility stand-alone basis	(62.9)
Corporate Income Taxes	<u>-</u>

EGI REVENUE FROM REGULATED STORAGE
& TRANSPORTATION OF GAS
2021 ACTUAL

Line No.	Particulars (\$000s)	2020 Actual	2021 Actual
Revenue from Regulated Storage Services:			
1	C1 Off-Peak Storage	1,002	433
2	Supplemental Balancing Services	1,016	640
3	Gas Loans	1	1
4	C1 Short Term Firm Peak Storage	2,715	1,536
5	Short Term Storage and Balancing Services Deferral	907	3,577
6	Rate 325: Transmission, Compression, & Storage	1,988	2,169
7	Less: Elimination of charges between EGD and Union rate zones	(2,000)	(2,226)
8	Total Regulated Storage Revenue Net of Deferral	\$ <u>5,630</u>	\$ <u>6,130</u>
Revenue from Regulated Transportation Services:			
9	M12 Transportation	206,677	206,637
10	M12-X Transportation	21,335	21,527
11	C1 Long Term Transportation	20,882	19,934
12	Rate 332: Gas Transmission	17,804	18,107
13	C1 Short Term Transportation	5,698	7,226
14	Gross Exchange Revenue	999	1,729
15	Rate 331: Gas Transmission	259	165
16	M13 Local Production	122	157
17	M16 Transportation	1,089	926
18	M17 transportation	109	545
19	S&T:Transportation Carbon Facility Collection	1,931	2,692
20	Other S&T Revenue	1,580	1,440
21	Less: Elimination of charges between EGD and Union rate zones	(136,155)	(138,489)
22	Total Regulated Transportation Revenue Net of Deferral	\$ <u>142,330</u>	\$ <u>142,597</u>

EGI UTILITY OTHER REVENUE AND OTHER INCOME
2021 ACTUALS

Line No.	Particulars	Col. 1 2020 Utility Revenue (\$Millions)	Col. 2 2021 Utility Revenue (\$Millions)
1.	Late Payment Penalties	20.8	19.9
2.	Account Opening Charges	9.8	11.1
3.	Other Billing Revenue	3.0	3.2
4.	Customer Billing Revenue	33.6	34.1
5.	Open Bill Revenue	5.4	5.4
	Distributor Consolidated Billing and Direct		
6.	Purchase Administration Charges	2.4	2.3
7.	Mid Market Transactions	1.1	1.2
8.	CNG Rental Revenue	1.8	1.8
9.	Other Operating Revenue	3.4	4.2
10.	Total Other Revenue	47.7	49.1
11.	Other Income	4.5	0.9
12.	Total Other Revenue and Other Income	52.2	50.0

UTILITY O&M

1. This evidence explains the drivers in the Utility Operating and Maintenance (O&M) expense change from 2021 to 2020.
2. The Utility O&M schedule for 2021 preserves the presentation from the 2020 ESM Proceeding (EB-2021-0149) to provide transparency to all expense categories and in particular, segregating Corporate Shared Services (CSS), Demand Side Management (DSM), and Integration-related costs. The Company recognizes that this O&M presentation is useful to inform stakeholders about operating costs, and as such, has maintained the presentation to allow the driver explanations to be comparable between years.
3. Table 1 presents 2021 O&M expenses relative to the prior year. As in 2020, Enbridge Gas provided an appendix reconciling O&M results presented in the format of Table 1 compared to formats previous to 2019. Please refer to Appendix A for the reconciliation for 2021 results and presentation. Given the fact that Enbridge Gas now has three years of historical information presented in the format in Table 1, it is proposed that the reconciliation in Appendix A is no longer required or useful for the remaining deferred rebasing years of 2022 and 2023. Enbridge Gas requests approval to not provide the Appendix A reconciliation going forward after this proceeding.
4. Overall, O&M expenses decreased by \$32.3 million primarily due to the non-recurrence of the one-time severance costs for voluntary workforce departures that occurred in 2020. Sustained synergy savings also contributed to the decrease. These decreases were partially offset by increases primarily in CSS, compensation and benefits, outside services, donations and memberships, and vehicle related repairs and maintenance.

Table 1
UTILITY O&M
 2021 & 2020 ACTUALS

/U

Line No.	Expense Categories	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
			2020 Actual (\$M)	2021 Actual (\$M)	\$ change	% change
1	Compensation and Benefits		354.7	369.8	15.1	4.3%
2	Employee Related Services and Development		1.5	1.5	(0.0)	-2.0%
3	Materials and Supplies		29.9	32.5	2.6	8.6%
4	Outside Services		220.8	232.1	11.3	5.1%
5	Transportation Related Repairs and Maintenance		6.9	5.7	(1.2)	-17.8%
6	Vehicle Related Repairs and Maintenance		14.3	19.8	5.5	38.1%
7	Rents and Leases		9.9	11.1	1.2	11.7%
8	Telecommunications		0.3	0.2	(0.1)	-35.1%
9	Travel and Entertainment		3.1	3.7	0.6	20.1%
10	Donations and Memberships		3.2	11.3	8.1	258.1%
11	Admin Expenses		(1.6)	(4.1)	(2.5)	162.1%
12	Allocations & Recoveries		(17.8)	(16.5)	1.3	-7.1%
13	Corporate Shared Services (CSS)		187.8	218.1	30.3	16.1%
14	DSM		132.3	132.1	(0.2)	-0.1%
15	Integration-Related Costs		125.2	49.8	(75.4)	-60.2%
16	Miscellaneous Expense		14.7	9.8	(4.9)	-33.4%
17	Capitalization on Non-CSS		(119.5)	(138.2)	(18.7)	15.7%
18	O&M Subtotal before Eliminations		965.7	938.7	(27.0)	-2.8%
19	Donations		(0.6)	(3.6)	(3.0)	465.1%
20	CDM Program		0.1	0.0	(0.1)	-100.0%
21	ABC T-service Program		(0.2)	(0.3)	(0.1)	76.3%
22	Other Eliminations		0.0	(0.1)	(0.1)	
23	Unregulated Adjustments		(16.6)	(18.5)	(1.9)	11.5%
24	Total Unregulated/Non-Utility Eliminations		(17.3)	(22.5)	(5.2)	30.4%
25	Total Net Utility O&M Expense		948.5	916.2	(32.3)	-3.4%

- With the exclusion of \$77.7 million of severance costs in 2020, the remaining integration-related costs (Line 15) increased by \$2.4 million as integration initiatives continue to be pursued across all functional areas.
- CSS costs (Line 13) include business functions such as Legal, Finance, Human Resources and Technology Information Services (TIS) that serve business units across the Enbridge enterprise. CSS costs are primarily comprised of compensation

7. and benefits for CSS employees. Costs are charged to the individual business units based on appropriate cost allocation in relation to the services received.
8. CSS costs were \$30.3 million higher than the prior year primarily due to: higher pension and benefits; higher information technology costs driven by cybersecurity investments resulting from government mandates in response to heightened threats to energy companies, deployment and sustainment costs of new technology to support business requirements; higher insurance costs from market conditions brought about by heightened pandemic risk; and lower overhead capitalization of CSS costs (please see Table 2 for more detail).
9. Compensation and benefits (Line 1) increased \$15.1M from higher pension and benefits costs. The pension increase was the result of a higher actuarial valuation. Short-term incentive payments (STIP) were higher from stronger performance compared to 2020. Stock-based compensation (SBC) was similarly higher as a result of a higher share price.
10. Outside services (Line 4) increased \$11.3M over the prior year primarily due to an increase in integrity spending, higher locates costs due to higher contract rates, higher postage costs from lower e-bill utilization, higher contract costs for call center, back-office billing and collections support, and increases in regulatory consulting costs related to rebasing preparations as well as higher regulatory fees reflecting the volume of proceedings including Integrated Resource Planning (IRP).
11. Donations and memberships (Lines 10 and 19) increased \$5.1M (after elimination of donations not deducted for utility purposes) over the prior year due to higher sponsorships relative to 2020 when the pandemic curtailed sponsorship opportunities. Also contributing to the unfavorable variance is the transfer of Union

Gas Low-Income Energy Assistance Program (LEAP) amounts to the Donations and Memberships category in 2021 for tracking and reporting alignment with Enbridge Gas Distribution (EGD) LEAP disbursements. The increase is offset in the Admin Expenses category (Line 11).

12. Vehicle-related repair expenses (Line 6) increased \$5.5M in 2021 due to the higher maintenance and repairs needs of an aging fleet of vehicles, as well as from higher fuel prices.

1. 2021 Overhead Capitalization

13. The following section describes total overhead capitalization for both CSS (included in Line 13) and non-CSS cost categories (Line 17).

14. Overhead capitalization applies to all expense categories except integration-related costs, which are fully expensed. Total combined overhead capitalization was \$10.4M more than the prior year (Table 2).

15. Non-CSS overhead capitalization increased by \$18.7M driven by the increases in O&M expenses noted in the previous section.

16. CSS overhead capitalization decreased by \$8.3M from the prior year primarily due to lower direct labour engaged in 2021 capital activity. With the completion of the labor-intensive Customer Information System (CIS) capital Information Technology (IT) project in 2020, direct labour burdens were lower in 2021 by comparison. While CSS costs increased, the increase was primarily due to higher pension and benefits, which flow to capital through burdening of direct and indirect labour.

Table 2

Total Overhead Capitalization Impact on O&M

	2020 Actual (\$M)	2021 Actual (\$M)	Variance (\$M)
	<u> </u>	<u> </u>	<u> </u>
CSS-related Capitalization	(105.0)	(96.7)	8.3
Capitalization on Non-CSS	(119.5)	(138.2)	(18.7)
	<u>(224.5)</u>	<u>(234.9)</u>	<u>(10.4)</u>

17. While reconciliation tables were provided in the 2020 ESM application (Appendices, EB-2021-0149) to aid in the understanding and adoption of the new schedule, as well as to provide visibility to Corporate Allocations and Recoveries as agreed to in the 2019 ESM Settlement Proposal, inbound allocations and outbound recoveries are no longer relevant for 2021 as all CSS costs are inbound to Enbridge Gas. Affiliates are similarly allocated their charges directly through Enbridge Inc. and not through Enbridge Gas. Table 3 summarizes the Total Corporate allocation, the CSS capitalization applied, and Total Net CSS. Variance explanations are as noted in previous sections.

Table 3

Corporate Allocations and CSS

	<u>2020</u>	<u>2021</u>	<u>2020-2021 Variance</u>
Total Gross CSS	292.8	314.8	22.0
Less: Capitalization of CSS	<u>(105.0)</u>	<u>(96.7)</u>	<u>8.3</u>
Net CSS	187.8	218.1	30.3

Appendix A

RECONCILIATION OF UTILITY O&M SCHEDULE
 2020 & 2021 Results

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Line No.	Expense Categories (\$M)	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
		2020 As filed ¹	Central Functions Costs	DSM & Integration Costs	2020 Revised	2021 Previous Format	Central Functions Costs	DSM & Integration Costs	2021 Revised	2020-2021 \$ change	2020-2021 % change	
		2020 ACTUAL				2021 ACTUAL						
1	Compensation and Benefits	572.2	(108.0)	(109.5)	354.7	514.2	(112.8)	(31.6)	369.8	15.2	4.3%	
2	Employee Related Services and Development	6.5	(4.8)	(0.2)	1.5	5.1	(3.1)	(0.5)	1.5	(0.0)	-2.0%	
3	Materials and Supplies	92.1	(5.3)	(56.9)	29.9	97.7	(7.9)	(57.3)	32.5	2.6	8.6%	
4	Outside Services	341.3	(36.6)	(83.9)	220.8	364.0	(39.3)	(92.6)	232.1	11.3	5.1%	
5	Transportation Related Repairs and Maintenance	9.8	(2.9)	(0.0)	6.9	9.2	(3.5)	(0.0)	5.7	(1.2)	-17.8%	
6	Vehicle Related Repairs and Maintenance	14.4	(0.0)	(0.0)	14.3	19.9	(0.0)	(0.1)	19.8	5.5	38.1%	
7	Rents and Leases	12.4	(2.5)	(0.0)	9.9	12.5	(1.4)	-	11.1	1.2	11.7%	
8	Telecommunications	3.8	(3.5)	(0.0)	0.3	2.5	(2.3)	-	0.2	(0.1)	-35.1%	
9	Travel and Entertainment	4.3	(0.9)	(0.4)	3.1	4.1	(0.3)	(0.1)	3.7	0.6	20.1%	
10	Donations and Memberships	4.3	(0.2)	(0.9)	3.2	12.4	(0.3)	(0.7)	11.3	8.1	258.1%	
11	Admin Expenses	0.9	0.8	(3.3)	(1.6)	(4.7)	(1.2)	1.7	(4.1)	(2.5)	162.1%	
12	Allocations & Recoveries	113.4	(128.8)	(2.3)	(17.8)	126.2	(142.1)	(0.7)	(16.5)	1.3	-7.1%	
13	Corporate Shared Services (CSS)		187.8		187.8	-	218.1		218.1	30.3	16.1%	
14	DSM			132.3	132.3	-		132.1	132.1	(0.2)	-0.1%	
15	Integration-Related Costs			125.2	125.2	-		49.8	49.8	(75.4)	-60.2%	
16	Miscellaneous O&M Expense	14.7			14.7	9.8			9.8	(4.9)	-33.4%	
17	Capitalization on non-CSS	(224.3)	104.9		(119.5)	(234.3)	96.0		(138.2)	(18.7)	15.7%	
18	O&M Subtotal before Eliminations	965.7	(0.0)	(0.0)	965.7	938.7	(0.0)	0.0	938.7	(27.0)	-2.8%	
19	Donations	(0.6)			(0.6)	(3.6)			(3.6)	(3.0)	485.1%	
20	CDM Program	0.1			0.1	0.0			0.0	(0.1)	-100.0%	
21	ABC T-service Program	(0.2)			(0.2)	(0.3)			(0.3)	(0.1)	76.3%	
22	Other Eliminations	0.0			0.0	(0.1)			(0.1)	(0.1)	-	
23	Unregulated Adjustments	(16.6)			(16.6)	(18.5)			(18.5)	(1.9)	11.5%	
24	Total Unregulated/Non-Utility Eliminations	(17.3)			(17.3)	(22.5)			(22.5)	(5.2)	30.4%	
25	Total Net Utility O&M Expense	948.5			948.5	916.2			916.2	(32.3)	-3.4%	

UTILITY CAPITAL EXPENDITURES

1. The purpose of this evidence is to provide information on Enbridge Gas' 2021 utility capital expenditures within the EGD and Union rate zones.

Table 1
Summary of Capital Expenditures 2021 Actual
 (\$millions)

	Col 1	Col 2	Col 3
	EGD	UG	TOTAL EGI
Distribution Plant	457.9	465.4	923.2
Transmission Plant	-	128.6	128.6
General & Other Plant	113.0	74.3	187.3
Underground Storage Plant	59.5	12.2	71.7
	630.4	680.4	1,310.8

2. The dollars presented are annual capital expenditures and are comparable to the presentation in the Asset Management Plan. Capital expenditures in ICM applications are presented on an in-service basis.
3. Table 2 below shows the regulated expenditures by Asset Class for each of the legacy rate zones. Further commentary regarding the year over year changes in capital expenditures are described by Asset Class in the narrative following Table 2.

Table 2
EGD Rate Zone by Asset Class

(\$millions)

	Asset Class	2020	2021	Variance
A	Compression Stations	9.2	26.8	17.6
B	Customer Connections	117.5	172.0	54.4
C	Distribution Pipe	58.5	151.0	92.6
D	Distribution Stations	33.7	43.4	9.8
E	Fleet & Equipment	11.3	15.3	4.0
F	Growth - Distribution System Reinforcement	8.4	13.4	5.0
G	Real Estate & Workplace Services	22.2	40.2	18.0
H	Technology Information Services (TIS)	13.8	12.7	(1.1)
I	Transmission Pipe and Underground Storage	12.7	32.7	20.0
J	Utilization	31.3	34.8	3.5
K	EA Fixed Overhead	15.7	19.5	3.8
L	Capitalized Overheads	131.9	-	(131.9)
M	Integration Capital	19.2	44.8	25.6
N	Community Expansion	20.2	13.5	(6.7)
O	Other	1.6	10.1	8.6
	Total Capital Expenditures	507.2	630.4	123.2

Table 2
UG Rate Zone by Asset Class
 (\$millions)

	Asset Class	2020	2021	Variance
A	Compression Stations	17.3	15.5	(1.8)
B	Customer Connections	61.1	88.7	27.6
C	Distribution Pipe	134.3	296.1	161.8
D	Distribution Stations	27.7	47.8	20.1
E	Fleet & Equipment	8.9	11.4	2.5
F	Growth - Distribution System Reinforcement	61.6	35.1	(26.5)
G	Real Estate & Workplace Services	16.1	30.3	14.2
H	Technology Information Services (TIS)	9.0	10.1	1.2
I	Transmission Pipe and Underground Storage	20.8	46.8	26.0
J	Utilization	31.6	45.9	14.3
K	EA Fixed Overhead	3.8	5.9	2.2
L	Capitalized Overheads	90.3	-	(90.3)
M	Integration Capital	19.3	42.7	23.4
N	Community Expansion	0.7	3.8	3.1
O	Other	(2.5)	0.3	2.8
	Total Capital Expenditures	500.0	680.4	180.4

1. Descriptions of Asset Classes and Year over Year Variances

4. Effective January 2021, EGI is allocating capitalized overheads to projects based on the total pool of overheads and the total direct capital spend by rate zone. As a result, capitalized overheads are being reflected within the asset classes and will no longer shown as a separate asset class. This is consistent with the presentation of overheads in the Asset Management Plan and ICM applications (as of 2021).

A. Compression Stations

EGL (Union rate zone) uses compressors to move natural gas throughout the natural gas transmission system by compressing natural gas into transmission pipelines designed for high pressure and flow. Compressors are also used for both rate zones to move gas in and out of underground storage reservoirs by providing a significant pressure increase at the expense of flow.

Dehydration facilities are also included in the compression asset category. Dehydration facilities remove moisture from natural gas to ensure that the natural gas entering the transmission system meets the contractual standard of moisture content, and to avoid operational problems related to high moisture content. EGL operates one liquified natural gas (LNG) facility, the LNG facility serves to provide reserve capacity and balance operational loads during peak periods.

The EGD rate zone increased due to the pacing of large growth projects in 2021 including: Ph 1 (\$14.0M) and Ph 2 (\$2.2M) of the Corunna (SCOR) Meter Area Upgrade.

The Union rate zone had an overall decrease due to the timing of land purchases adjacent to facilities and the variability in the cost/timing of unplanned compressor failures that require capital treatment, countered by an increase in improvement projects.

The inclusion of overheads is a \$7.9M increase compared to 2020 spend.

B. Customer Connections

This asset class includes:

- The addition of new customers based on new housing or business starts;
- Customers converting to natural gas from another fuel source;
- Equipment and service upgrades to accommodate load growth of existing customers; and
- General customer growth costs include materials and installation of mains and services to attach new customers as well as the costs associated with the meter and regulator installation at the customers site.

In the EGD rate zone there was an increase in customers connected in 2021 compared to 2020. In both rate zones, the cost of labour and materials also increased due to shortages, inflation rates and unfavourable currency exchange rates.

The inclusion of overheads is a \$49.0M increase compared to 2020 spend.

C. Distribution Pipe

This asset class includes the maintenance, replacement, and renewal of pipelines and piping components (such as valves and fittings) used to transport natural gas within the distribution system or to end-use customers. It includes steel and plastic pipe, as well as services to customers.

In the EGD rate, the increase was largely driven by the timing of vintage steel investments, the significant investment for NPS 20 Lake Shore Replacement (Cherry to Bathurst) (\$20.9M), the return of the AMP fitting and other programs following curtailment in 2020 for COVID-19.

For the Union rate zone, the increase was driven by large ICM projects including the London Lines Replacement (\$73.4M) and the West Portion of the Windsor Lines (\$34.2M).

Both rate zones saw increases in integrity retrofits and digs and relocations compared to 2020. Both rate zones saw cost variances driven by the deferral of work as a result of inflation and COVID-19 impacts to materials, accessibility and resources.

The inclusion of overheads is a \$83.2M increase compared to 2020 spend.

D. Distribution Stations

These assets are typically above grade facilities designed to reduce the operating pressure of natural gas pipeline systems through pressure control and over pressure protection. These facilities are used to transmit and/or distribute natural gas to reduced operating pressure pipeline systems which supply natural gas to cities and towns.

The EGD rate zone variance is due to minor shifts in investment cost and timing.

In the Union rate zone, the overall increase was driven by an increase in the Station Rebuilds & B and C Stations program and increased Integrity Assessments to establish the condition of the station components and adjust project scopes to address the integrity findings. This was partially offset by a decrease in both CNG stations and Gate, Feeder and A Stations due to Dawn CNG (\$1.4M), Hamilton Gate 1 Rebuild (\$9.3M) and Oxford Gate Station (\$7.0M) requiring capital spend in 2020.

The inclusion of overheads is a \$17.1M increase compared to 2020 spend.

E. Fleet & Equipment

The Fleet, Equipment and Tools asset class includes the vehicles, trailers, heavy equipment and tools owned by EGI to support its business needs.

For the EGD rate zone, spend was pulled forward into 2021 for the TDW ProStopp tool (\$4.1M) which improves safety for workers during construction activities. This was countered by a decrease in vehicle purchases due to delays in supply chain.

The Union Gas rate zones did not have significant variances from 2020.

The inclusion of overheads is a \$5.0M increase compared to 2020 spend.

F. Growth – Distribution System Reinforcement

The Growth asset class includes reinforcements driven by customer and load growth.

For the EGD rate zone, there was an overall increase due to investment cost and timing.

For the Union rate zones, there was an overall decrease due to the larger Growth projects executed in 2020, including Kingsville Transmission (\$9.8M) and Owen Sound Reinforcement Ph 4 (\$56.4M). In 2021, the significant Growth projects were Byron Transmission Station (\$14.0M) and Staples Reinforcement (\$5.7M).

The inclusion of overheads is a \$9.0M increase compared to 2020 spend.

G. Real Estate and Workplace Services

The Real Estate and Workplace Services (REWS) asset class includes properties (buildings and land) and furnishings.

There is a base spend for each rate zone that supports building repairs and acquisition of furnishings. Variances are driven by the specific land purchases and building renovations that occur in a given year. Land acquisitions are driven by market availability and are aligned with the long-term strategies described in the Asset Management Plan.

In 2021, there was a significant investment in lands to execute the SMOC/Coventry Facility Consolidation (\$15.7M) and the Kennedy Road Expansion Project (\$2.6M) in the EGD rate zone. For the Union rate zone, the significant investment was the new Belleville Property Construction (\$7.5M). The significant real estate investments vary year over year due to market availability and project scope variation to meet business facility requirements.

Significant renovations at for the VPC Annex/Metershop Area Renovations (\$9.1M) in the EGD rate zone and the 50 Keil Drive Renovations (\$6.1M 2nd Floor & \$5.1M 3rd Floor) in the Union rate zone occurred in 2021.

The inclusion of overheads is a \$13.2M increase compared to 2020 spend.

H. Technology Information Services

The Technology Information Services (TIS) asset class includes:

- General Hardware (Laptops/Desktops and Desktop sustainment equipment, networks, servers and security);
- Specialized Hardware (to support specific business needs such as meter

reading equipment, call center network devices);

- Software assets consisting of packaged applications, developed applications, and application infrastructure software; and
- Communications assets including mobile phones and field devices (such as GPS devices, push-to-talk radios, leak survey field technology, and truck modems).

For the EGD rate zone, there was a decrease in the TIS infrastructure compared to 2020 due to higher spends on Desktop Replacement (\$2.9M) and the Microsoft Enterprise Agreement (\$1.8M) in 2020.

For the UG rate zone, there was no significant variance.

The inclusion of overheads is a \$4.3M increase compared to 2020 spend.

I. Transmission Pipe and Underground Storage

This asset class includes the pipelines that form the backbone of the gas transmission system as well as the underground storage reservoirs in St. Clair Township near Sarnia, Crowland Township in Welland, and in Chatham-Kent.

Increases in the EGD rate zone were primarily related to the timing of land purchases at facilities, an increase in MOP verification and remediation replacement projects, the timing of the Wilksport (LWLK) Well Debris Filter improvement project (\$2.5M) and an increase in retrofits & integrity digs for the Integrity Management Program.

In the UG rate zone, the Sarnia Expansion Growth Projects (\$10.8M Novacor Station & 21.1M NPS 20 Dow to Bluewater [LTC: EB-2019-0218]) were the

major driver to the increase. The 2021 replacement spend was lower than 2020, where the execution of the 2020 Trafalgar projects (\$12.8M) took place.

The inclusion of overheads is a \$14.8M increase compared to 2020 spend.

J. Utilization

The utilization asset class includes measurement & regulation systems at customer premises, below ground and internal piping systems after the meter, and customer-owned systems¹.

The EGD rate zone saw reductions in planned meter exchanges as a result of COVID-19 and its impact on supply chain and contractor resources.

Meter purchases in Union rate zone were higher in 2021 compared to 2020 as meters from 2020 were advanced and executed in 2019.

The inclusion of overheads is a \$15.1M increase compared to 2020 spend.

K. EA Fixed Overheads

The EA fixed overhead asset class includes cost for Alliance partner overheads and district contractor pre-work costs. The increase is due to additional planning work related to the Vintage Steel Program in the EGD rate zone and timing of payments for both EGD and Union rate zones.

¹ For customer owned systems that are downstream of the meter, the asset class is accountable for inspection at the time of initial installation and after re-introduction of gas. Maintenance and remediation of these assets are the responsibility of the customer.

L. Capitalized Overheads

As set out above, effective January 2021, EGI is allocating capitalized overheads to projects based on the total pool of overheads and the total direct capital spend by rate zone. As a result, capitalized overheads are being reflected within the asset classes and will no longer shown as a separate asset class. This is consistent with the presentation of overheads in the Asset Management Plan and ICM applications (as of 2021).

Total combined overhead capitalization increased by \$10M. The overhead increases are explained in B-3-1.

M. Integration Capital

Integration capital includes expenditures required to integrate the two legacy companies. EGI continues to evaluate projects to determine if they meet the criteria of integration capital: a one time incremental cost related to the amalgamation of the legacy utilities. Projects can be newly identified to address integration needs, or they may be driven by a need to replace an asset due to obsolescence. In either case, the project is classified as integration as it is driving a harmonized solution that adds value to the integrated utility. It is important to note that the work being addressed through some integration projects would have been required for either or both rate zones in the absence of amalgamation (because of factors such as obsolescence or growth), but the projects are nonetheless included as integration capital because the project is done for the amalgamated utility. An example of work related to integration expenditures would be the integration of the customer billing systems. These expenditures are excluded when calculating the thresholds for ICM capital.

The increase in the EGD rate zone is due to the purchase of land for the new GTA West site and the Integrated Utility Asset & Work Management project.

The increase in the UG rate zone is due to the completion of the CIS Integration project and continued work on the Cost of Gas project.

The inclusion of overheads is a \$16.4M increase compared to 2020 spend.

N. Community Expansion

Community expansion provides natural gas services to communities not currently using natural gas. In response to the Ontario Energy Board's (OEB) initiative to address the Government of Ontario's desire to expand natural gas distribution systems to communities that currently do not have access to natural gas, EGI has filed proposals with the OEB designed to facilitate enhanced access to natural gas for non-served rural, remote and First Nation communities, and businesses in Ontario.

In the EGD rate zone, the decrease in spend is primarily related to lower spend on the Fenelon Falls and Scugog Island projects due to construction completion, offset by the start of design work for the Community Expansion Phase 2 projects.

In the Union rate zone, the increase in spend is related to construction with the Northshore & Peninsula project.

5. Table 3 below shows the Asset Classes with storage spend for each rate zone and the allocation of costs between the regulated and unregulated segments of EGI's storage operations. Both the EGD and Union rate zones have OEB approved policies and methodologies for unregulated storage allocations. Allocations are

maintained at the individual asset level and updated annually to reflect additions and retirements to the assets. The allocations are applied to storage based capital projects in order to separate the regulated and unregulated costs. Regulated projects include indirect overhead allocations.

Table 3
EGD Rate Zone Storage by Asset Class 2021 Actual
 (\$millions)

	Asset Class	Regulated	Unregulated
A	Compression Stations	26.8	1.3
B	Transmission Pipe and Underground Storage	32.7	13.0
	Total Capital Expenditures	59.5	14.3

6. Compression Stations – significant regulated projects Corunna (SCOR) Meter Area Upgrade Phase 1 (\$14.0M), Corunna (SCOR) Meter Area Upgrade Phase 2 (\$2.2M), SCOR:100MODHdr Valves-Replace (\$1.4M) and SCOR:60004 iBalance-Upgrade (\$1.3M).
7. Transmission Pipe and Underground Storage – significant projects related to EGD’s regulated assets include Wilkesport MOP Remediation (\$6.2M), NPS16 LAD-WLK Interconnect MOP (\$4.1M), LLAD:, strategic land purchases at 2 locations around the underground storage facilities (\$5M), Wilksport (LWLK) Well Debris Filter (\$2.5M), NPS 16 Coveny Trans. Retrofit (\$2.3M) and NPS 16 COV Gathering Retrofit (\$2.2M). Significant unregulated projects include Pipeline and Meter Station – Upgrade (\$6.2M). This is part of the 2020/2021 Storage Enhancement project (EB-2020-0074) which will increase the maximum operating pressure of the Black Creek, Coveny and Wilkesport pools. The Storage Enhancement projects are being executed in 2 phases in order to meet the growing market demand for incremental storage space.

Table 3
UG Rate Zone Storage by Asset Class

(\$millions)

	Asset Class	Regulated	Unregulated
A	Compression Stations	15.5	1.8
B	Transmission Pipe and Underground Storage	46.8	9.2
	Total Capital Expenditures	62.3	11.0

8. Compression Stations – significant projects related to UG’s regulated assets include strategic land purchases at 3 locations around the underground storage facilities (\$5.2M) and the Sandwich Gas Generator Overhaul (\$0.7M).
- Transmission Pipe and Underground Storage – significant projects related to UG’s regulated assets include Sarnia Expansion – Bluewater Energy Park (\$21M), Sarnia Expansion – Novacor Stn (\$10.8M), NPS 34 Trafalgar Digs (\$2.2M) and Panhandle Line Depth of Cover Mitigation (\$2M). The INTE: 156 Storage and Pool Loop: Permanent L R Facilities (\$3.4M) project has both a regulated and unregulated component due to the allocation applied to the storage pool assets. The SE 21/22 LCOR:Payne Tie-In (\$2.4M) is an unregulated project and is part of the 2nd phase of the Storage Enhancement project (EB-2021-0079) described in paragraph 7 above.

ENBRIDGE GAS
SUMMARY OF CAPITAL COST ALLOWANCE (CCA)

Line No.	Particulars (\$000s)	Col. 1 UCC at Prior Year Filing EB-2021-0149 (a)	Col. 2 True-up from Filing to Tax Return (b)	Col. 3 UCC At Beginning of Year (c)	Col. 4 Total Additions (d)	Col. 5 Total Additions Qualifying for Accel. CCA (e)	Col. 6 Less: Lessor of Cost or Proceeds (f)	Col. 7 Eligible CCA Additions (g)	Col. 8 Depreciable UCC Balance (h)	Col. 9 Rate (%) (i)	Col. 10 CCA FY2021 (j)	Col. 11 Ending UCC (k)
Class												
1.	1 Buildings, structures and improvements, services, meters, mains	2,298,694.5	-	2,298,694.5	-	-	-	-	2,298,694.5	4%	91,947.8	2,206,746.7
2.	1 Non-residential building acquired after March 19, 2007	118,836.9	(386.3)	118,450.6	31,673.9	31,047.5	-	46,884.5	165,335.0	6%	9,920.1	140,204.4
3.	2 Mains acquired before 1988	162,237.1	(14.9)	162,222.2	-	-	-	-	162,222.2	6%	9,733.3	152,488.9
4.	3 Buildings acquired before 1988	2,996.9	-	2,996.9	-	-	-	-	2,996.9	5%	149.8	2,847.0
5.	6 Other buildings	80.3	(2.0)	78.3	-	-	-	-	78.3	10%	7.8	70.5
6.	7 Compression equipment acquired after February 22, 2005	490,024.8	(9.2)	490,015.5	5,851.4	5,789.8	-	8,715.5	498,731.0	15%	74,809.7	421,057.3
7.	8 Compression assets, office furniture, equipment	191,576.3	(190.8)	191,385.5	17,583.7	17,583.7	-	26,375.5	217,761.0	20%	43,552.2	165,417.0
8.	10 Transportation, computer equipment	28,978.1	42.8	29,020.9	8,412.0	8,412.0	(84.2)	12,575.9	41,512.6	30%	12,453.8	24,894.9
9.	12 Computer software, small tools	1,521.5	(1,521.5)	-	60,466.4	57,423.4	-	58,944.9	58,944.9	100%	58,944.9	1,521.5
10.	13 Leasehold improvements	673.9	(110.1)	563.8	-	-	-	-	563.8	0%	212.1	351.7
11.	14.1 Intangibles	10,574.1	(4.9)	10,569.1	2,802.8	2,704.6	-	4,106.0	14,675.1	5%	733.8	12,638.2
12.	14.1 Intangibles (pre 2017)	46,798.6	-	46,798.6	-	-	-	-	46,798.6	7%	3,275.9	43,522.7
13.	17 Roads, sidewalk, parking lot or storage areas	502.6	-	502.6	-	-	-	-	502.6	8%	40.2	462.4
14.	38 Heavy work equipment	10,956.3	(28.1)	10,928.2	2,587.3	2,587.3	-	3,880.9	14,809.1	30%	4,442.7	9,072.7
15.	41 Storage assets	51,577.1	3,707.2	55,284.2	56,745.2	52,156.7	-	80,529.3	135,813.6	25%	33,953.4	78,076.1
16.	45 Computers - Hardware acquired after March 22, 2004	6.3	-	6.3	-	-	-	-	6.3	45%	2.8	3.4
17.	49 Transmission pipeline additions acquired after February 23, 2005	744,028.8	8,131.1	752,159.9	75,728.0	75,728.0	-	113,592.0	865,751.9	8%	69,260.2	758,627.8
18.	50 Computers hardware acquired after March 18, 2007	14,927.1	315.9	15,243.1	22,927.3	16,965.5	-	28,429.2	43,672.3	55%	24,019.7	14,150.7
19.	51 Distribution pipelines acquired after March 18, 2007	5,303,987.9	(23,723.9)	5,280,264.0	836,580.8	834,194.2	-	1,252,484.7	6,532,748.7	6%	391,964.9	5,724,879.9
20.	Total	<u>9,478,979.1</u>	<u>(13,794.8)</u>	<u>9,465,184.3</u>	<u>1,121,359.0</u>	<u>1,104,592.6</u>	<u>(84.2)</u>	<u>1,636,518.3</u>	<u>11,101,618.5</u>		<u>829,425.1</u>	<u>9,757,034.0</u>

ACCOUNTS NOT BEING REQUESTED FOR CLEARANCE

1. The Company is not seeking clearance of the following accounts in this proceeding. For the following accounts, Enbridge Gas will carry the balances forward and seek clearance in appropriate future proceedings:
 - Accounting Policy Changes Deferral Account - EGI
 - Tax Variance Deferral Account – Integration-related Balances - EGI
 - Impacts Arising from the COVID-19 Emergency Deferral Account - EGI
 - Incremental Capital Module Deferral Account - EGD Rate Zone
 - Incremental Capital Module Deferral Account - Union Rate Zones

2. The following accounts of Enbridge Gas have zero balances and are therefore not requested for clearance:
 - IRP Capital Costs Deferral Account - EGI
 - Earnings Sharing Mechanism Deferral Account - EGI
 - Expansion of Natural Gas Distribution Systems Variance Account - EGI

ENBRIDGE GAS – ACCOUNTING POLICY CHANGES DEFERRAL ACCOUNT
(APCDA) (No. 179-381)

1. On August 30, 2018 the Ontario Energy Board (OEB) issued its Decision and Order for the amalgamation and rate setting mechanism (the MAADs Decision) approving the amalgamation of Enbridge Gas Distribution Inc. (EGD) and Union Gas Limited (Union) and the rate-setting framework¹. In its Decision, the OEB established a deferral account to record the impact of any accounting changes required as a result of amalgamation that affect the revenue requirement.² The OEB approved wording of the accounting order for the Accounting Policy Changes Deferral Account (APCDA) effective January 1, 2019 in its Decision and Order on Enbridge Gas' 2019 Rates application³.
2. As per the EB-2020-0134 Decision on Settlement Proposal, as part of the settlement proposal, parties agreed to defer the review, allocation and disposition of all balances in the APCDA until the end of Enbridge Gas's deferred rebasing term (2023). Parties noted that they required more information regarding the treatment of the balances and the extent of rate harmonization post-rebasing before approval of the balances and the disposition methodology can be considered⁴.
3. The Company continues to track the annual revenue requirement impact of accounting policy changes made as of the amalgamation date, January 1, 2019, as well as any further accounting policy changes adopted since that time. The cumulative balance of the APCDA as of December 31, 2021 is a receivable of \$139.028 million, driven by the revenue requirement impact of five accounting

¹ EB-2017-0306/0307, MAAD's Decision and Order dated August 30, 2018; The Decision and Order was later amended by the OEB on September 17, 2018 with no material changes.

² EB-2017-0306/0307, MAAD's Decision and Order dated August 30, 2018, page 47.

³ EB-2018-0305, 2019 Rates Final Rate Order dated October 24, 2019, Appendix I, page 7.

⁴ EB-2020-0134, Decision on Settlement Proposal dated January 25, 2021, pages 4-5.

changes arising from (and since) amalgamation, which are detailed in the table below. The table categorizes each of the accounting policy changes, provides the cumulative opening balance as of the beginning of the period, details the current period revenue requirement impact being added to the cumulative balance, and finally provides the ending cumulative balance as of the end of the current period. The details of each item within the table below are described further in the remaining evidence presented.

	<u>Revenue Requirement</u>						Total
	<u>\$millions</u>						
	Capitalization vs Expense	Interest During Construction	Depreciation Expense	Overhead Capitalization	Subtotal	Pension Expense	
Balance at January 1, 2021	(0.786)	0.887	(10.214)	(6.427)	(16.539)	181.465	164.926
Impact to 2021 revenue requirement:							
Expense	(3.652)	0.076	(4.882)	(4.735)	(13.193)	(12.033)	(25.226)
Cost of capital	0.125	0.112	0.687	0.668	1.592	-	1.592
Income tax	(0.097)	0.274	(1.647)	(0.794)	(2.264)	-	(2.264)
Total	(3.624)	0.462	(5.842)	(4.861)	(13.865)	(12.033)	(25.898)
Balance at December 31, 2021	(4.410)	1.349	(16.056)	(11.288)	(30.404)	169.432	139.028

4. Please refer to Exhibit C, Tab 1, Schedule 2 for the detailed 2021 revenue requirement calculation of the items presented above.

1. Capitalization vs Expense

5. Capitalization policies differed between EGD and Union with respect to whether the following items were capitalized or expensed as incurred:

	<u>Union Policy</u>	<u>EGD Policy</u>	<u>EGI Policy</u>
<ul style="list-style-type: none"> • Verification of Maximum Operating Pressure Program (“MOP”); • Customer Assets Programs (Low Pressure Delivery Meter Set and Farm Tap Programs); • Distribution Integrity Technology; • Distribution Records Management Program; and, 	Expensed as incurred	Capitalized	Expensed as incurred
<ul style="list-style-type: none"> • Integrity Digs resulting from integrity inspections 	Expensed as incurred	Capitalized	Capitalize

6. Upon amalgamation, it was necessary for Enbridge Gas to align its capitalization policies where differences existed between legacy EGD and legacy Union. The policy alignment resulted in a net impact in 2021 between UGL and EGD Rate Zones of:

- Lower O&M expense of approximately \$3.638 million, offset by higher capitalization; and,
- Gross revenue requirement decrease, or sufficiency of \$3.624 million.

2. Interest During Construction

7. Interest During Construction (IDC) is a cost of constructing an asset which is included in the cost of property plant and equipment capitalized.⁵ IDC is recovered in rates through depreciation expense, along with a return on rate base over the life of

⁵ ASC 835-20-05-1.

the asset. Both Union and EGD capitalized IDC in accordance with US GAAP, however, IDC calculation was different in the legacy utilities, as seen below.

	<u>Union Policy</u>	<u>EGD Policy</u>	<u>EGI Policy</u>
Threshold	IDC is only calculated on projects with capital spend of \$1 million or greater, and that have a duration of greater than 12 months	No threshold – applied to all capital projects regardless of size and duration	No Threshold – applied to all capital projects regardless of size and duration
Rate	OEB prescribed interest rate for CWIP	Weighted average cost of debt (WACD)	OEB prescribed interest rate for CWIP

8. Upon amalgamation, it was necessary for Enbridge Gas to align its accounting treatment of IDC. The policy alignment resulted in the following for 2021:
- Total 2021 net gross revenue requirement increase, or deficiency of \$0.711 million.
 - A 2020 true-up to the EGD IDC WACD rate in 2021 resulted in a revenue requirement decrease, or sufficiency of \$0.249 million.

3. Depreciation Expense

9. Depreciation rates for Union and EGD are based on depreciation studies that were approved by the OEB in prior proceedings. The respective depreciation studies for each EGD and Union Rate Zones continue to be used by Enbridge Gas.
10. Upon amalgamation, it was necessary for Enbridge Gas to align the depreciation policies of legacy EGD and legacy Union Gas with respect to how depreciation on assets is calculated.

<u>Union Policy</u>	<u>EGD Policy</u>	<u>EGI Policy</u>
Half year of depreciation in the first and last year of service, regardless of month the asset went into service	Begin depreciation the month after the asset goes into service, and stops the month after retirement	Begin depreciation the month after the asset goes into service, and stops the month after retirement

11. Since many projects go into service late in the year, the EGD/Enbridge Gas policy would typically result in a lower first year depreciation expense than following the Union policy.

12. The policy alignment resulted in an impact in 2021 specific only to the UGL Rate Zone of:

- A decrease in depreciation expense of approximately \$4.882 million; and,
- A gross revenue requirement decrease, or sufficiency of \$5.842 million.

4. Overhead Capitalization

13. Following amalgamation, the Company sought to harmonize its overhead capitalization methodology and retained Ernst and Young (EY) to carry out the study. EY's assessment was informed by historical legacy approaches, the amalgamated structure, US GAAP, the OEB's Uniform System of Accounts, and Enbridge's Enterprise Capitalization Policy. Recommendations of the study were implemented in January 2020. The study grouped costs into Operations Costs, Business Costs, Support Costs, and Pension and Benefits, each with their own capitalization treatment to more directly link with causal determinants of cost.

14. Prior to this harmonization, capitalized overheads in the legacy EGD approach were determined by the application of Departmental Labour Costs (DLC) rates and Administrative & General (A&G) rates to support costs for capital work in field operations and business support operations, as well as administrative functions that

support the overall business. In legacy UG, annual updates were carried out for support groups where capitalization rates were derived from time spent on capital activity.

15. The APCDA isolates the impact of the overhead capitalization policy change. The calculation takes the annual O&M spend with the new harmonized rates and subtracts from it O&M spend using the legacy rates to determine the APCDA impact. The policy change results in a decrease in O&M and offsetting increase in capitalized overheads, with the revenue requirement impact recorded in the APCDA. The net impact in 2021 between UGL and EGD Rate Zones was:

- Lower net OM&A expenses of \$5.4 million (offset by higher capitalization of overheads); and,
- A gross revenue requirement decrease, or sufficiency of \$4.861 million

5. Pension Expense – Unamortized Actuarial Gains/Losses and Prior Service Costs

16. Prior to December 31, 2018, Union recorded actuarial gains/losses and past service costs (Actuarial Losses) in Accumulated Other Comprehensive Income (AOCI) and amortized the balance over the expected average remaining service life (EARSL) of employees in accordance with ASC 715-30-35-24. This amortization expense was part of pension cost that was recognized annually and included in the forecast that underpinned rates. As a result of the Enbridge Inc. (EI) and Spectra merger (the Merger) on February 27, 2017, EI recorded the acquisition of Union through a purchase price allocation (PPA) in accordance with ASC 805. As a result, Union's pension assets were adjusted on EI's books to fair value and the unamortized Actuarial Losses of \$250 million were reclassified from AOCI to Goodwill. These

adjustments were not required to be pushed down⁶ and were not pushed down to the Union stand alone financial statements. Therefore, this adjustment did not impact Union financial statements or accounting at the time of the merger.

17. Approximately \$39 million of Actuarial Losses were amortized between February 27, 2017 and December 31, 2018, resulting in a balance of \$211 million remaining in Union's AOCI at amalgamation (the Amalgamation) (January 1, 2019).

18. Upon amalgamation, US GAAP required the PPA recorded by Enbridge Inc. related to Union to be pushed down into the combined financial statements of Enbridge Gas.⁷ This resulted in the remaining unamortized Actuarial Losses on Union's balance sheet to be reclassified from AOCI to Goodwill.

19. Although this appears to be a balance sheet reclassification only, the adjustment would have a significant impact on Enbridge Gas if not for regulatory accounting. AOCI is amortized as an annual expense whereas Goodwill is not. As such, this treatment would result in stranding the balance in Goodwill that would never be expensed. This is an accounting change that occurred only because of the amalgamation. Otherwise, Union would have continued to amortize Actuarial Losses as pension expense, just as it had done in the past.

⁶ *Pushdown accounting* refers to establishing a new basis of accounting in the separate financial statements of the acquired entity (or acquiree) after it is acquired. The acquisition adjustments recorded by the acquirer in a business combination under ASC Topic 805 are pushed down to the acquiree's separate financial statements.

⁷ In accordance with ASC 805-50-30-5: "When accounting for a transfer of assets or exchange of shares between entities under common control, the entity that receives the net assets or the equity interests shall initially measure the recognized assets and liabilities transferred at their carrying amounts in the accounts of the transferring entity at the date of transfer. If the carrying amounts of the assets and liabilities transferred differ from the historical cost of the parent of the entities under common control, for example, because pushdown accounting had not been applied, then the financial statements of the receiving entity shall reflect the transferred assets and liabilities at the historical cost of the parent of the entities under common control."

20. The change in accounting policy has not altered the fact that Union has incurred the Actuarial Losses and should recover these costs over time, as is currently approved by the OEB. As noted previously, the balances represent the accumulation of Actuarial Losses incurred in relation to the pension assets that Enbridge Gas needs to continue to fund through cash contributions to the pension plans. Enbridge Gas's funding requirements do not change simply because the accounting treatment has changed. Therefore, continued recovery in rates through the deferred rebasing period is appropriate and is consistent with the OEB's approved approach for utilities. As noted in the *"Report of the Ontario Energy Board – Regulatory Treatment of Pension and Other Post-employment Benefits (OPEBs) Costs – EB-2015-0040,"* accrual based accounting for pensions under ASC 715 would result in a match to actual cash contributions by the end of the life of the plans.
21. Accordingly, Enbridge Gas adjusted the opening balance sheet at January 1, 2019, to record the \$211 million balance previously recognized as AOCI in the financial records of Enbridge Gas as a regulatory asset (within the APCDA), instead of Goodwill. Enbridge Gas continues to draw down the regulatory asset by amortizing this balance as part of pension expense resulting in a regulatory asset balance of \$169 million recognized in the APCDA at December 31, 2021. By continuing to follow this approach, Enbridge Gas ensures that its results during the deferred rebasing period reflect the accrual based pension expense recognized annually through amortization of the noted balance.
22. As noted in the EB-2020-0134 Interrogatory Response to LPMA⁸, the amortization of actuarial gains/losses and past service costs is a component of accrual-based pension expense. Base rates for both the EGD and Union rate zones include a

⁸ EB-2020-0134, Exhibit I.LPMA.4, page 2.

provision for accrual-based pension expenses as part of O&M. As communicated previously, commencing in 2019, the amortization of the unamortized actuarial gains/losses and past service costs through a drawdown of the pension balance in the APCDA results in the amortization continuing to form part of Enbridge Gas's overall pension expense, consistent to amortization that would have occurred prior to amalgamation.

23. Enbridge Gas proposes to continue the annual amortization and inclusion as part of the accrual based pension costs recognized as part of O&M expense (consistent with the amortization of actuarial gains/losses and past service costs incurred after the Enbridge/Spectra merger in 2017). This proposal will draw down the balance in the APCDA throughout the deferred rebasing period and will result in the recognition of annual pension expenses consistent with amounts that would have been recognized had the accounting change not been required (i.e. utility earnings are not impacted).
24. As indicated in 2019 and 2020, in a continuing effort to manage the impact to ratepayers, Enbridge Gas is continuing with this approach throughout the deferred rebasing period and will propose a methodology for disposal of the residual balance in the APCDA related to pension costs at December 31, 2023, as part of rebasing.

ENBRIDGE GAS - TAX VARIANCE DEFERRAL ACCOUNT

1. Establishment of the Enbridge Gas Inc. - Tax Variance Deferral Account was approved in the OEB's 2019 Rates (EB-2018-0305) Final Rate Order¹. The purpose of this account is to record 50% of the revenue requirement impact of any tax rate changes, versus the tax rates included in rates that affect Enbridge Gas. In accordance with the OEB's July 25, 2019 letter, *Accounting Direction Regarding Bill C-97 and Other Changes in Regulatory or Legislated Tax Rules for Capital Cost Allowance*, also accumulated in this account is 100% of the revenue requirement impact of any changes in Capital Cost Allowance (CCA) that are not reflected in base rates. This includes impacts related to Bill C-97 CCA rule changes, which became effective November 21, 2018, as well as any future CCA changes instituted by relevant regulatory or taxation bodies. Tax rate and CCA rule change impacts recorded in the account will, however, exclude tax rate and rule change impacts that are captured through other deferral account mechanisms (i.e., through the Incremental Capital Module Deferral Account and respective Capital Pass-through Project Deferral Accounts).

¹ EB-2018-0305, Final Rate Order dated October 24, 2019, Appendix I, page 10.

2. The balance in the Enbridge Gas Tax Variance Deferral Account at the end of 2021 is comprised of the following:

a. 2020 True up to T2 Filing balance ²	\$0.468 million
b. 2021 Non-integration related balance ³	\$18.694 million
c. 2020 Integration related balance ⁴	\$3.736 million
d. 2021 Integration related balance ⁵	\$10.463 million
Total Balance	\$33.361 million

3. As noted above, the balance requested for clearance within this proceeding is a credit of \$19.163 million⁶, plus forecast interest of \$0.227 million, for a total of \$19.390 million. Of the principal balance in the account, \$0.468 million relates to a true-up of the 2020 accelerated CCA impact, while \$18.694 million relates to the 2021 accelerated CCA impact. The 2020 true-up amount reflects the impact of a variance between the 2020 qualifying additions captured in the 2020 Enbridge Gas Tax Variance Deferral Account examined in the EB-2021-0149 proceeding, and the final 2020 qualifying additions supporting EGI's 2020 tax filing. The accelerated CCA impacts of Bill C-97 were the only tax rate changes that impacted 2021.
4. As noted in the account description, the Tax Variance Deferral Account does not include the accelerated CCA impacts related to capital pass-through and incremental capital module projects, which have been reflected in the determination of variances recorded in deferral accounts associated with those respective projects.

² Seeking approval to dispose of balance in this proceeding.

³ Seeking approval to dispose of balance in this proceeding.

⁴ Balance to be carried forward through end of 2023 per direction in EB-2021-0149 Settlement Decision.

⁵ Balance to be carried forward through end of 2023 in line with decision on 2020 integration related balance.

⁶ Sum of \$0.468 million + \$18.694 million.

5. Consistent with the OEB's EB-2021-0149 Decision and Order, dated January 27, 2021, the Tax Variance Deferral Account balance also includes the balances above that relate to accelerated CCA impacts of capital additions related to amalgamation/integration capital projects. Please see Exhibit C, Tab 1, Schedule 3 for continuity schedules supporting the calculation of the 2020 and 2021 accelerated CCA impacts of capital additions related to amalgamation/integration capital projects. The associated impacts of the annual integration related capital expenditures in 2020 and 2021 can be found in Exhibit B, Tab 3, Schedule 2. As per the direction in the Decision and Order, EGI will hold these cumulative balances in the account through 2023 and propose disposition within EGI's 2024 rebasing application.

1. Income Tax - Bill C-97 (Accelerated CCA)

6. To calculate the annual income tax (or earnings) impact of accelerated CCA, Enbridge Gas has maintained a continuity of the 2018 – 2021 total annual capital additions which have qualified for accelerated CCA, and then removed the annual additions related to capital pass-through and incremental capital module. For the remaining qualifying additions, the cumulative annual CCA has been calculated utilizing the accelerated rates and compared against the cumulative annual CCA calculated at the non-accelerated rates. The annual income tax (or earnings) impact of the variance between the two methodologies was then grossed-up for taxes to determine the annual revenue requirement impact. These annual impacts, representing 100% of the revenue requirement impact, have been recorded each year in the Enbridge Gas Inc. – Tax Variance Deferral Account. Please see Exhibit C, Tab 1, Schedule 3 for continuity schedules supporting the calculation of the 2021 accelerated CCA impact.

ENBRIDGE GAS – INTEGRATED RESOURCE PLANNING OPERATING COSTS
DEFERRAL ACCOUNT

1. On July 22, 2021, the OEB released its Decision and Order (EB-2020-0091) for Enbridge Gas' Integrated Resource Planning (IRP) Proposal. In this Decision, the OEB approved the establishment of an IRP Operating Costs Deferral Account for all IRP operations, maintenance, and administrations costs, and a separate IRP Capital Costs Deferral Account for IRP project plan costs.
2. On August 12, 2021, Enbridge Gas filed its draft accounting orders for the IRP Operating Costs Deferral Account and IRP Capital Cost Deferral Account. On September 2, 2021, the OEB found that the draft accounting orders were consistent with the Decision and Order and approved the accounts as filed.
3. The purpose of the IRP Operating Costs Deferral Account, as established in the OEB's EB-2020-0091 Decision and Order, is to record incremental IRP general administrative costs, as well as incremental operating and maintenance costs and ongoing evaluation costs for approved IRP Plans. Operating costs associated with approved IRP Plans would also include all enabling payments to service providers, made as part of the IRP Plans.
4. The balance in the 2021 IRP Operating Costs Deferral Account that is being requested for clearance within this proceeding is a debit of \$0.058 million, plus forecast interest of \$0.0005 million, for a total of \$0.058 million. This amount is attributable to incremental Enbridge Gas staff salaries for IRP related work performed in 2021. The OEB in its IRP Decision approved "incremental IRP administrative costs required to meet the increased workload related to IRP"¹ ... 'be treated as expenses and recorded in this account [operating costs deferral account]."²

¹ EB-2020-0091, Decision and Order, page 71.

² EB-2020-0091, Decision and Order, page 75.

5. Since, this application is the first opportunity for Enbridge Gas to propose a rate allocation methodology for the IRP Operating Cost Deferral Account at Exhibit F, Tab 1, the account is being submitted for clearance despite the relatively modest amount incurred in 2021.

ENBRIDGE GAS
DEFERRAL & VARIANCE ACCOUNT
ACTUAL & FORECAST BALANCES

		Col. 1	Col. 2	Col. 3	Col. 4		
Forecast for clearance at January 1, 2023							
Line No.	Account Description	Account Acronym	Principal (\$000's)	Interest (\$000's)	Total (\$000's)	Reference	
<u>EGD Rate Zone Commodity Related Accounts</u>							
1.	Storage and Transportation D/A	2021 S&TDA	7,942.5	97.0	8,039.5	D-1, Page 2	
2.	Transactional Services D/A	2021 TSDA	(3,904.1)	(35.4)	(3,939.6)	D-1, Page 4	
3.	Unaccounted for Gas V/A	2021 UAFVA	753.9	4.5	758.4	D-1, Page 6	
4.	Total commodity related accounts		4,792.2	66.2	4,858.4		
<u>EGD Rate Zone Non Commodity Related Accounts</u>							
5.	Average Use True-Up V/A	2021 AUTUVA	14,934.3	135.5	15,069.8	D-1, Page 10	
6.	Gas Distribution Access Rule Impact D/A	2021 GDARIDA	-	-	-	D-1, Page 23	
7.	Deferred Rebate Account	2021 DRA	4,359.4	53.5	4,412.9	D-1, Page 12	
8.	Transition Impact of Accounting Changes D/A	2021 TIACDA	4,435.8	-	4,435.8	D-1, Page 1	
9.	Electric Program Earnings Sharing D/A	2021 EPESDA	-	-	-	D-1, Page 23	
10.	Open Bill Revenue V/A	2021 OBRVA	-	-	-	D-1, Page 23	
11.	Ex-Franchise Third Party Billing Services V/A	2021 EXFTPBSVA	-	-	-	D-1, Page 23	
12.	RNG Injection Service V/A	2021 RNGISVA	-	-	-	D-1, Page 23	
13.	OEB Cost Assessment V/A	2021 OEBCAVA	2,550.3	31.5	2,581.8	D-1, Page 13	
14.	Dawn Access Costs D/A	2021 DACDA	1,968.0	17.9	1,985.9	D-1, Page 16	
15.	Pension and OPEB Forecast Accrual vs. Actual Cash Payment Dif	2021 P&OPEBFAVACPDVA	-	-	-	D-1, Page 23	
16.	Total EGD Rate Zone (for clearance)		33,040.0	304.5	33,344.6		
<u>Union Rate Zones Gas Supply Accounts</u>		<u>OEB Account Number</u>					
17.	Upstream Transportation Optimization	179-131	2021	8,616.3	78.2	8,694.5	E-1, Page 6
18.	Spot Gas Variance Account	179-107	2021	-	-	-	E-1, Page 58
19.	Unabsorbed Demand Costs Variance Account	179-108	2021	(1,665.6)	(28.3)	(1,693.9)	E-1, Page 1
20.	Base Service North T-Service TransCanada Capacity	179-153	2021	83.5	0.9	84.4	E-1, Page 52
21.	Total Gas Supply Accounts			7,034.2	50.8	7,085.0	
<u>Union Rate Zones Storage Accounts</u>							
22.	Short-Term Storage and Other Balancing Services	179-70	2021	3,576.9	32.5	3,609.4	E-1, Page 8
<u>Union Rate Zones Other Accounts</u>							
23.	Normalized Average Consumption	179-133	2021	18,997.4	239.4	19,236.8	E-1, Page 13
24.	Deferral Clearing Variance Account	179-132	2021	(3,120.4)	(45.3)	(3,165.7)	E-1, Page 21
25.	OEB Cost Assessment Variance Account	179-151	2021	907.1	11.4	918.5	E-1, Page 49
26.	Unbundled Services Unauthorized Storage Overrun	179-103	2021	-	-	-	E-1, Page 58
27.	Gas Distribution Access Rule Costs	179-112	2021	-	-	-	E-1, Page 58
28.	Conservation Demand Management	179-123	2021	-	-	-	E-1, Page 58
29.	Parkway West Project Costs	179-136	2021	(603.3)	(6.4)	(609.7)	E-1, Page 25
30.	Brantford-Kirkwall/Parkway D Project Costs	179-137	2021	(45.0)	(0.4)	(45.4)	E-1, Page 29
31.	Lobo C Compressor/Hamilton-Milton Pipeline Project Costs	179-142	2021	24.0	0.4	24.4	E-1, Page 41
32.	Lobo D/Bright C/Dawn H Compressor Project Costs	179-144	2021	(112.1)	(3.6)	(115.7)	E-1, Page 44
33.	Burlington-Oakville Project Costs	179-149	2021	(51.0)	(0.5)	(51.5)	E-1, Page 47
34.	Panhandle Reinforcement Project Costs	179-156	2021	(3,162.0)	(35.9)	(3,197.9)	E-1, Page 53
35.	Sudbury Replacement Project	179-162	2021	-	-	-	E-1, Page 58
36.	Parkway Obligation Rate Variance	179-138	2021	-	-	-	E-1, Page 58
37.	Unauthorized Overrun Non-Compliance Account	179-143	2021	-	-	-	E-1, Page 58
38.	Pension and OPEB Forecast Accrual vs. Actual Cash Payment Dif	179-157	2021	-	(1,345.6)	(1,345.6)	E-1, Page 56
39.	Unaccounted for Gas Volume Variance Account	179-135	2021	20,501.3	176.9	20,678.2	E-1, Page 31
40.	Unaccounted for Gas Price Variance Account	179-141	2021	3,358.3	31.8	3,390.1	E-1, Page 38
41.	Total Other Accounts			36,694.3	(977.8)	35,716.5	
42.	Total Union Rate Zones (for clearance)			47,305.4	(894.6)	46,410.8	
<u>EGI Accounts</u>							
43.	Earnings Sharing D/A	179-382	2021	-	-	-	C-1, Page 1
44.	Tax Variance - Accelerated CCA - EGI	179-383	2021	(19,162.6)	(227.2)	(19,389.8)	C-1, Page 12
45.	IRP Operating Costs Deferral Account	179-385	2021	57.7	0.5	58.2	C-1, Page 15
46.	IRP Capital Costs Deferral Account	179-386	2021	-	-	-	C-1, Page 1
47.	Expansion of Natural Gas Distribution Systems V/A	179-380	2021	-	-	-	C-1, Page 1
48.	Total EGI Accounts (for clearance)			(19,104.9)	(226.7)	(19,331.6)	
49.	Total Deferral and Variance Accounts (for clearance)			61,240.5	(816.7)	60,423.8	
<u>Not Being Requested for Clearance</u>							
50.	Accounting Policy Changes D/A - Pension - EGI	179-120	2021	169,431.8	-	169,431.8	C-1, Page 2
51.	Accounting Policy Changes D/A - Other - EGI	179-120	2019	(1,749.5)	(52.8)	(1,802.3)	C-1, Page 2
52.	Accounting Policy Changes D/A - Other - EGI	179-120	2020	(14,789.5)	(249.4)	(15,038.9)	C-1, Page 2
53.	Accounting Policy Changes D/A - Other - EGI	179-120	2021	(13,864.6)	(168.8)	(14,033.4)	C-1, Page 2
54.	Tax Variance - Integration Capital Additions - EGI	179-383	2020	(3,736.3)	(28.6)	(3,764.8)	C-1, Page 12
55.	Tax Variance - Integration Capital Additions - EGI	179-383	2021	(10,462.6)	(80.0)	(10,542.7)	C-1, Page 12
56.	Incremental Capital Module Deferral Account - EGD	2020 ICMDA	2020	(254.0)	(3.2)	(257.2)	C-1, Page 1
57.	Incremental Capital Module Deferral Account - EGD	2021 ICMDA	2021	175.5	2.0	177.5	C-1, Page 1
58.	Incremental Capital Module Deferral Account - UGL	179-159	2019	(6,869.6)	(196.1)	(7,065.7)	C-1, Page 1
59.	Incremental Capital Module Deferral Account - UGL	179-159	2020	(5,615.4)	(91.9)	(5,707.2)	C-1, Page 1
60.	Incremental Capital Module Deferral Account - UGL	179-159	2021	(14,353.4)	(147.2)	(14,500.6)	C-1, Page 1
61.	Impacts Arising from the COVID-19 Emergency D/A - EGI	2020 IACEDA	2020	1,377.5	20.3	1,397.8	C-1, Page 1
62.	Impacts Arising from the COVID-19 Emergency D/A - EGI	2021 IACEDA	2021	34.3	0.4	34.7	C-1, Page 1
63.	Total of Accounts not being requested for clearance			99,324.2	(995.3)	98,328.9	

ENBRIDGE GAS
SUMMARY OF ACCOUNTING POLICY CHANGES DEFERRAL ACCOUNT (NO. 179-381)
UTILITY REVENUE REQUIREMENT

Line No.	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	
(\$000's)	EGD - Change from Capital to O&M	UGL - Change from O&M to Capital	Capitalization Policy Alignment - Subtotal	EGD - Change from IDC rate at WACD to Board Prescribed	UGL - Elimination of IDC Threshold	IDC Policy Alignment - Subtotal	Depreciation Expense Policy Alignment	EGD - Change in Overhead Capitalization	UGL - Change in Overhead Capitalization	Overhead Capitalization Alignment - Subtotal	APCDA Total	Actuarial Gains/Losses on UGL Pension	
Cost of capital													
1.	Rate base	(6,664.9)	7,367.8	702.9	(253.1)	1,745.5	1,492.4	9,416.5	(5,043.7)	13,439.8	8,396.1	20,007.9	-
2.	Required rate of return*	6.20%	7.30%		6.20%	7.30%		7.30%	6.20%	7.30%			7.30%
3.	Cost of capital*	(413.2)	537.8	124.6	(15.7)	127.4	111.7	687.4	(312.7)	981.1	668.4	1,592.1	-
Cost of service													
4.	Gas costs	-	-	-	-	-	-	-	-	-	-	-	-
5.	Operation and Maintenance	916.2	(4,554.6)	(3,638.4)	-	-	-	-	4,513.3	(9,930.1)	(5,416.8)	(9,055.2)	(12,033.4)
6.	Depreciation and amortization	(162.0)	148.8	(13.2)	(7.3)	83.5	76.2	(4,881.5)	180.2	502.1	682.3	(4,136.2)	-
7.	Municipal and other taxes	-	-	-	-	-	-	-	-	-	-	-	-
8.	Cost of service	754.2	(4,405.8)	(3,651.6)	(7.3)	83.5	76.2	(4,881.5)	4,693.5	(9,428.0)	(4,734.5)	(13,191.4)	(12,033.4)
Income taxes on earnings													
9.	Excluding tax shield	(128.3)	1,018.3	890.0	781.2	(430.4)	350.8	-	(670.3)	1,267.4	597.1	1,837.9	3,188.9
10.	Tax shield provided by interest expense	51.6	(78.1)	(26.5)	2.0	(18.5)	(16.5)	(99.8)	39.0	(142.5)	(103.5)	(246.3)	-
11.	Income taxes on earnings	(76.7)	940.2	863.5	783.2	(448.9)	334.3	(99.8)	(631.3)	1,124.9	493.6	1,591.6	3,188.9
Taxes on (def) / suff.													
12.	Gross (def.) / suff.	(360.0)	3,983.7	3,623.7	(1,034.3)	323.7	(710.6)	5,842.0	(5,101.4)	9,961.9	4,860.5	13,615.6	12,033.4
13.	Net (def.) / suff.	(264.6)	2,928.0	2,663.4	(760.2)	237.9	(522.3)	4,293.9	(3,749.5)	7,322.0	3,572.5	10,007.5	8,844.5
14.	Taxes on (def.) / suff.	95.4	(1,055.7)	(960.3)	274.1	(85.8)	188.3	(1,548.1)	1,351.9	(2,639.9)	(1,288.0)	(3,608.1)	(3,188.9)
15.	Revenue requirement	359.7	(3,983.5)	(3,623.8)	1,034.3	(323.8)	710.5	(5,842.0)	5,101.4	(9,961.9)	(4,860.5)	(13,615.8)	(12,033.4)
16.	Gross revenue (def.) / suff.	(359.7)	3,983.5	3,623.8	(1,034.3)	323.8	(710.5)	5,842.0	(5,101.4)	9,961.9	4,860.5	13,615.8	12,033.4
											2020 True-Up to EGD IDC WACD rate	248.8	
											Total Booked to 2021 APCDA	13,864.6	

*Union rate zones 2013 Board-approved rate of return is 7.3% and EGD rate zone 2018 Board-approved rate of return is 6.2%.

ENBRIDGE GAS
CALCULATION OF THE BILL C-97 ACCELERATED CCA IMPACT TO BE RECORDED IN THE TAX VARIANCE DEFERRAL ACCOUNT

		<u>2018 Year-End</u>												
Line No.	Particulars (\$000s)	Opening UCC Accel. CCA	Opening UCC Regular CCA	Total Additions Qualifying for Accel. CCA	ICM & CPT Additions	CTA Additions	Additions Net of ICM CPT & CTA	Accel. CCA Depreciable UCC Balance	Regular CCA Depreciable UCC Balance	Rate (%)	Accelerated CCA	Regular CCA	Closing UCC Accel. CCA	Closing UCC Regular CCA
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Class														
1.	1 Buildings, structures and improvements, services, meters, mains	-	-	-	-	-	-	-	-	4%	-	-	-	-
2.	1 Non-residential building acquired after March 19, 2007	-	-	2,952.7	1,724.3	-	1,228.4	1,842.6	614.2	6%	110.6	36.9	1,117.8	1,191.5
3.	2 Mains acquired before 1988	-	-	-	-	-	-	-	-	6%	-	-	-	-
4.	3 Buildings acquired before 1988	-	-	-	-	-	-	-	-	5%	-	-	-	-
5.	6 Other buildings	-	-	-	-	-	-	-	-	10%	-	-	-	-
6.	7 Compression equipment acquired after February 22, 2005	-	-	7,775.4	4,438.3	-	3,337.0	5,005.6	1,668.5	15%	750.8	250.3	2,586.2	3,086.8
7.	8 Compression assets, office furniture, equipment	-	-	7,616.0	100.0	-	7,516.0	11,274.0	3,758.0	20%	2,254.8	751.6	5,261.2	6,764.4
8.	10 Transportation, computer equipment	-	-	1,874.7	-	-	1,874.7	2,812.0	937.3	30%	843.6	281.2	1,031.1	1,593.5
9.	12 Computer software, small tools	-	-	11,185.5	-	-	11,185.5	11,185.5	5,592.7	100%	11,185.5	5,592.7	-	5,592.7
10.	13 Leasehold improvements	-	-	-	-	-	-	-	-	N/A	-	-	-	-
11.	14.1 Intangibles	-	-	82.0	-	-	82.0	122.9	41.0	5%	6.1	2.0	75.8	79.9
12.	14.1 Intangibles (pre 2017)	-	-	-	-	-	-	-	-	7%	-	-	-	-
13.	17 Roads, sidewalk, parking lot or storage areas	-	-	-	-	-	-	-	-	8%	-	-	-	-
14.	38 Heavy work equipment	-	-	823.6	-	-	823.6	1,235.4	411.8	30%	370.6	123.5	453.0	700.1
15.	41 Storage assets	-	-	379.1	141.0	-	238.1	357.2	119.1	25%	89.3	29.8	148.8	208.4
16.	45 Computers - Hardware acquired after March 22, 2004	-	-	-	-	-	-	-	-	45%	-	-	-	-
17.	49 Transmission pipeline additions acquired after February 23, 2005	-	-	1,870.0	584.3	-	1,285.6	1,928.5	642.8	8%	154.3	51.4	1,131.4	1,234.2
18.	50 Computers hardware acquired after March 18, 2007	-	-	2,286.8	-	-	2,286.8	3,430.1	1,143.4	55%	1,886.6	628.9	400.2	1,657.9
19.	51 Distribution pipelines acquired after March 18, 2007	-	-	62,357.7	1,078.0	-	61,279.7	91,919.5	30,639.8	6%	5,515.2	1,838.4	55,764.5	59,441.3
20.	Total	\$ -	\$ -	99,203.4	8,066.0	-	91,137.4	131,113.3	45,568.7		\$ 23,167.4	\$ 9,586.7	67,970.0	81,550.6

Line No.	Particulars (\$000s)	<u>2019 Year-End</u>											Closing UCC Accel. CCA	Closing UCC Regular CCA
		Opening UCC Accel. CCA	Opening UCC Regular CCA	Total Additions Qualifying for Accel. CCA	ICM & CPT Additions	CTA Additions	Additions Net of ICM CPT & CTA	Accel. CCA Depreciable UCC Balance	Regular CCA Depreciable UCC Balance	Rate (%)	Accelerated CCA	Regular CCA		
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Class														
1.	1 Buildings, structures and improvements, services, meters, mains	-	-	-	-	-	-	-	-	4%	-	-	-	-
2.	1 Non-residential building acquired after March 19, 2007	1,117.8	1,191.5	7,938.6	871.0	-	7,067.6	11,719.3	4,725.3	6%	703.2	283.5	7,482.3	7,975.6
3.	2 Mains acquired before 1988	-	-	-	-	-	-	-	-	6%	-	-	-	-
4.	3 Buildings acquired before 1988	-	-	-	-	-	-	-	-	5%	-	-	-	-
5.	6 Other buildings	-	-	-	-	-	-	-	-	10%	-	-	-	-
6.	7 Compression equipment acquired after February 22, 2005	2,586.2	3,086.8	6,244.1	5,218.0	-	1,026.1	4,125.3	3,599.8	15%	618.8	540.0	2,993.5	3,572.9
7.	8 Compression assets, office furniture, equipment	5,261.2	6,764.4	33,185.8	15,202.5	-	17,983.3	32,236.2	15,756.1	20%	6,447.2	3,151.2	16,797.3	21,596.5
8.	10 Transportation, computer equipment	1,031.1	1,593.5	16,254.8	-	-	16,254.8	25,413.3	9,720.9	30%	7,624.0	2,916.3	9,661.9	14,932.0
9.	12 Computer software, small tools	-	5,592.7	36,263.7	-	-	36,263.7	36,263.7	23,724.6	100%	36,263.7	23,724.6	-	18,131.8
10.	13 Leasehold improvements	-	-	-	-	-	-	-	-	N/A	-	-	-	-
11.	14.1 Intangibles	75.8	79.9	3,595.8	1,836.0	-	1,759.8	2,715.5	959.8	5%	135.8	48.0	1,699.8	1,791.7
12.	14.1 Intangibles (pre 2017)	-	-	-	-	-	-	-	-	7%	-	-	-	-
13.	17 Roads, sidewalk, parking lot or storage areas	-	-	-	-	-	-	-	-	8%	-	-	-	-
14.	38 Heavy work equipment	453.0	700.1	4,166.1	-	-	4,166.1	6,702.1	2,783.1	30%	2,010.6	834.9	2,608.4	4,031.2
15.	41 Storage assets	148.8	208.4	735.5	-	-	735.5	1,252.1	576.1	25%	313.0	144.0	571.3	799.8
16.	45 Computers - Hardware acquired after March 22, 2004	-	-	-	-	-	-	-	-	45%	-	-	-	-
17.	49 Transmission pipeline additions acquired after February 23, 2005	1,131.4	1,234.2	90,992.5	55,507.0	-	35,485.5	54,359.6	18,977.0	8%	4,348.8	1,518.2	32,268.1	35,201.6
18.	50 Computers hardware acquired after March 18, 2007	400.2	1,657.9	29,431.1	-	-	29,431.1	44,546.9	16,373.5	55%	24,500.8	9,005.4	5,330.5	22,083.6
19.	51 Distribution pipelines acquired after March 18, 2007	55,764.5	59,441.3	499,719.3	988.6	-	498,730.7	803,860.5	308,806.6	6%	48,231.6	18,528.4	506,263.5	539,643.6
20.	Total	\$ 67,970.0	\$ 81,550.6	\$ 728,527.3	\$ 79,623.1	\$ -	\$ 648,904.2	\$ 1,023,194.5	\$ 406,002.8		\$ 131,197.5	\$ 60,694.5	\$ 585,676.7	\$ 669,760.4

Line No.	Particulars (\$000s)	<u>2020 Year-End</u>												
		Opening UCC Accel. CCA	Opening UCC Regular CCA	Total Additions Qualifying for Accel. CCA	ICM & CPT Additions	CTA Additions	Additions Net of ICM CPT & CTA	Accel. CCA Depreciable UCC Balance	Regular CCA Depreciable UCC Balance	Rate (%)	Accelerated CCA	Regular CCA	Closing UCC Accel. CCA	Closing UCC Regular CCA
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Class														
1.	1 Buildings, structures and improvements, services, meters, mains	-	-	-	-	-	-	-	-	4%	-	-	-	-
2.	1 Non-residential building acquired after March 19, 2007	7,482.3	7,975.6	5,806.2	18.0	-	5,788.2	16,164.5	10,869.7	6%	969.9	652.2	12,300.6	13,111.6
3.	2 Mains acquired before 1988	-	-	-	-	-	-	-	-	6%	-	-	-	-
4.	3 Buildings acquired before 1988	-	-	-	-	-	-	-	-	5%	-	-	-	-
5.	6 Other buildings	-	-	-	-	-	-	-	-	10%	-	-	-	-
6.	7 Compression equipment acquired after February 22, 2005	2,993.5	3,572.9	3,939.1	109.0	-	3,830.1	8,738.6	5,487.9	15%	1,310.8	823.2	5,512.8	6,579.8
7.	8 Compression assets, office furniture, equipment	16,797.3	21,596.5	43,271.3	4,233.9	-	39,037.4	75,353.4	41,115.2	20%	15,070.7	8,223.0	40,764.0	52,410.9
8.	10 Transportation, computer equipment	9,661.9	14,932.0	5,546.8	-	-	5,546.8	17,982.1	17,705.4	30%	5,394.6	5,311.6	9,814.1	15,167.2
9.	12 Computer software, small tools	-	18,131.8	11,365.0	-	777.1	10,587.9	10,587.9	23,425.8	100%	10,587.9	23,425.8	-	5,293.9
10.	13 Leasehold improvements	-	-	-	-	-	-	-	-	N/A	-	-	-	-
11.	14.1 Intangibles	1,699.8	1,791.7	2,214.1	199.4	-	2,014.7	4,721.9	2,799.1	5%	236.1	140.0	3,478.5	3,666.5
12.	14.1 Intangibles (pre 2017)	-	-	-	-	-	-	-	-	7%	-	-	-	-
13.	17 Roads, sidewalk, parking lot or storage areas	-	-	-	-	-	-	-	-	8%	-	-	-	-
14.	38 Heavy work equipment	2,608.4	4,031.2	11,910.1	-	-	11,910.1	20,473.6	9,986.3	30%	6,142.1	2,995.9	8,376.4	12,945.4
15.	41 Storage assets	571.3	799.8	30,035.1	16.0	-	30,019.1	45,600.0	15,809.4	25%	11,400.0	3,952.4	19,190.4	26,866.6
16.	45 Computers - Hardware acquired after March 22, 2004	-	-	-	-	-	-	-	-	45%	-	-	-	-
17.	49 Transmission pipeline additions acquired after February 23, 2005	32,268.1	35,201.6	80,470.1	8,582.4	-	71,887.7	140,099.7	71,145.4	8%	11,208.0	5,691.6	92,947.8	101,397.7
18.	50 Computers hardware acquired after March 18, 2007	5,330.5	22,083.6	40,091.6	-	18,135.0	21,956.6	38,265.5	33,061.9	55%	21,046.0	18,184.1	6,241.1	25,856.2
19.	51 Distribution pipelines acquired after March 18, 2007	506,263.5	539,643.6	639,216.7	50,127.7	-	589,089.1	1,389,897.2	834,188.1	6%	83,393.8	50,051.3	1,011,958.8	1,078,681.3
20.	Total	\$ 585,676.7	\$ 669,760.4	\$ 873,866.1	\$ 63,286.3	\$ 18,912.2	\$ 791,667.7	\$ 1,767,884.3	\$ 1,065,594.3		\$ 166,759.8	\$ 119,451.0	\$ 1,210,584.6	\$ 1,341,977.1

		<u>2021 Year-End</u>												
Line No.	Particulars (\$000s)	Opening UCC Accel. CCA	Opening UCC Regular CCA	Total Additions Qualifying for Accel. CCA	ICM & CPT Additions	CTA Additions	Additions Net of ICM CPT & CTA	Accel. CCA Depreciable UCC Balance	Regular CCA Depreciable UCC Balance	Rate (%)	Accelerated CCA	Regular CCA	Closing UCC Accel. CCA	Closing UCC Regular CCA
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Class														
1.	1 Buildings, structures and improvements, services, meters, mains	-	-	-	-	-	-	-	-	4%	-	-	-	-
2.	1 Non-residential building acquired after March 19, 2007	12,300.6	13,111.6	31,455.0	-	1,723.1	29,731.9	56,898.5	27,977.6	6%	3,413.9	1,678.7	38,618.6	41,164.9
3.	2 Mains acquired before 1988	-	-	-	-	-	-	-	-	6%	-	-	-	-
4.	3 Buildings acquired before 1988	-	-	-	-	-	-	-	-	5%	-	-	-	-
5.	6 Other buildings	-	-	-	-	-	-	-	-	10%	-	-	-	-
6.	7 Compression equipment acquired after February 22, 2005	5,512.8	6,579.8	5,851.4	-	-	5,851.4	14,289.9	9,505.5	15%	2,143.5	1,425.8	9,220.7	11,005.4
7.	8 Compression assets, office furniture, equipment	40,764.0	52,410.9	15,737.5	7,849.8	53.3	7,834.3	52,515.5	56,328.1	20%	10,503.1	11,265.6	38,095.3	48,979.6
8.	10 Transportation, computer equipment	9,814.1	15,167.2	13,440.2	-	-	13,440.2	29,974.3	21,887.3	30%	8,992.3	6,566.2	14,261.9	22,041.2
9.	12 Computer software, small tools	-	5,293.9	76,510.3	-	53,798.4	22,711.9	22,711.9	16,649.9	100%	22,711.9	16,649.9	-	11,356.0
10.	13 Leasehold improvements	-	-	-	-	-	-	-	-	N/A	-	-	-	-
11.	14.1 Intangibles	3,478.5	3,666.5	2,802.8	18.9	-	2,784.0	7,654.4	5,058.5	5%	382.7	252.9	5,879.7	6,197.5
12.	14.1 Intangibles (pre 2017)	-	-	-	-	-	-	-	-	7%	-	-	-	-
13.	17 Roads, sidewalk, parking lot or storage areas	-	-	-	-	-	-	-	-	8%	-	-	-	-
14.	38 Heavy work equipment	8,376.4	12,945.4	5,402.9	-	-	5,402.9	16,480.9	15,646.9	30%	4,944.3	4,694.1	8,835.1	13,654.3
15.	41 Storage assets	19,190.4	26,866.6	54,897.2	-	-	54,897.2	101,536.3	54,315.2	25%	25,384.1	13,578.8	48,703.6	68,185.0
16.	45 Computers - Hardware acquired after March 22, 2004	-	-	-	-	-	-	-	-	45%	-	-	-	-
17.	49 Transmission pipeline additions acquired after February 23, 2005	92,947.8	101,397.7	75,856.8	-	-	75,856.8	206,733.0	139,326.0	8%	16,538.6	11,146.1	152,266.0	166,108.3
18.	50 Computers hardware acquired after March 18, 2007	6,241.1	25,856.2	7,950.3	-	14,327.6	(6,377.3)	(3,324.8)	22,667.5	55%	(1,828.6)	12,467.1	1,692.5	7,011.7
19.	51 Distribution pipelines acquired after March 18, 2007	1,011,958.8	1,078,681.3	810,728.0	104,174.2	-	706,553.7	2,071,789.4	1,431,958.2	6%	124,307.4	85,917.5	1,594,205.2	1,699,317.6
20.	Total	\$ 1,210,584.6	1,341,977.1	1,100,632.4	112,042.9	69,902.3	918,687.2	2,577,259.4	1,801,320.7		\$ 217,493.1	\$ 165,642.7	1,911,778.6	2,095,021.6

	2018	2019	2020	2021
CCA Variance (i) - (j)	13,580.7	70,503.0	47,308.8	51,850.4
Tax Rate	26.5%	26.5%	26.5%	26.5%
Earnings Impact of Accelerated CCA	3,598.9	18,683.3	12,536.8	13,740.4
Earnings Impact Grossed-up for Taxes Recorded in the TVDA	4,896.4	25,419.4	17,056.9	18,694.4
Balances as filed in EB-2021-0149	4,896.4	25,133.9	16,588.8	N/A
variance	-	285.5	468.2	-
Include adjustment to 2019 balance in 2020 TVDA	-	(285.5)	285.5	-
Include adjustment to 2020 balance in 2021 TVDA	-	-	(468.2)	468.2
Revised Balances	4,896.4	25,133.9	16,874.2	19,162.6

1 - Balance for 2019 was updated based on the change from EB-2020-0134 and Tax Filing on June 30, 2020.
 2 - Balance for 2020 was updated based on the change from EB-2021-0149 and Tax Filing on June 30, 2021.

2020 Year-End - Integration Capital Additions		Opening UCC	Opening UCC	CTA	Accel. CCA	Regular CCA	Rate	Accelerated	Regular	Closing UCC	Closing UCC
Line No.	Particulars (\$000s)	Accel. CCA	Regular CCA	Additions	Depreciable UCC Balance	Depreciable UCC Balance	(%)	CCA	CCA	Accel. CCA	Regular CCA
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Class											
1.	1 Buildings, structures and improvements, services, meters, mains	-	-	-	-	-	4%	-	-	-	-
2.	1 Non-residential building acquired after March 19, 2007	-	-	-	-	-	6%	-	-	-	-
3.	2 Mains acquired before 1988	-	-	-	-	-	6%	-	-	-	-
4.	3 Buildings acquired before 1988	-	-	-	-	-	5%	-	-	-	-
5.	6 Other buildings	-	-	-	-	-	10%	-	-	-	-
6.	7 Compression equipment acquired after February 22, 2005	-	-	-	-	-	15%	-	-	-	-
7.	8 Compression assets, office furniture, equipment	-	-	-	-	-	20%	-	-	-	-
8.	10 Transportation, computer equipment	-	-	-	-	-	30%	-	-	-	-
9.	12 Computer software, small tools	-	-	777.1	777.1	388.6	100%	777.1	388.6	-	388.6
10.	13 Leasehold improvements	-	-	-	-	-	N/A	-	-	-	-
11.	14.1 Intangibles	-	-	-	-	-	5%	-	-	-	-
12.	14.1 Intangibles (pre 2017)	-	-	-	-	-	7%	-	-	-	-
13.	17 Roads, sidewalk, parking lot or storage areas	-	-	-	-	-	8%	-	-	-	-
14.	38 Heavy work equipment	-	-	-	-	-	30%	-	-	-	-
15.	41 Storage assets	-	-	-	-	-	25%	-	-	-	-
16.	45 Computers - Hardware acquired after March 22, 2004	-	-	-	-	-	45%	-	-	-	-
17.	49 Transmission pipeline additions acquired after February 23, 2005	-	-	-	-	-	8%	-	-	-	-
18.	50 Computers hardware acquired after March 18, 2007	-	-	18,135.0	27,202.5	9,067.5	55%	14,961.4	4,987.1	3,173.6	13,147.9
19.	51 Distribution pipelines acquired after March 18, 2007	-	-	-	-	-	6%	-	-	-	-
20.	Total	\$ -	\$ -	18,912.2	27,979.7	9,456.1		\$ 15,738.5	\$ 5,375.7	3,173.6	13,536.5

2021 Year-End - Integration Capital Additions		Opening UCC	Opening UCC	CTA	Accel. CCA	Regular CCA	Rate	Accelerated	Regular	Closing UCC	Closing UCC
Line No.	Particulars (\$000s)	Accel. CCA	Regular CCA	Additions	Depreciable UCC Balance	Depreciable UCC Balance	(%)	CCA	CCA	Accel. CCA	Regular CCA
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Class											
1.	1 Buildings, structures and improvements, services, meters, mains	-	-	-	-	-	4%	-	-	-	-
2.	1 Non-residential building acquired after March 19, 2007	-	-	1,723.1	2,584.6	861.5	6%	155.1	51.7	1,568.0	1,671.4
3.	2 Mains acquired before 1988	-	-	-	-	-	6%	-	-	-	-
4.	3 Buildings acquired before 1988	-	-	-	-	-	5%	-	-	-	-
5.	6 Other buildings	-	-	-	-	-	10%	-	-	-	-
6.	7 Compression equipment acquired after February 22, 2005	-	-	-	-	-	15%	-	-	-	-
7.	8 Compression assets, office furniture, equipment	-	-	53.3	79.9	26.6	20%	16.0	5.3	37.3	48.0
8.	10 Transportation, computer equipment	-	-	-	-	-	30%	-	-	-	-
9.	12 Computer software, small tools	-	388.6	53,798.4	53,798.4	27,287.8	100%	53,798.4	27,287.8	-	26,899.2
10.	13 Leasehold improvements	-	-	-	-	-	N/A	-	-	-	-
11.	14.1 Intangibles	-	-	-	-	-	5%	-	-	-	-
12.	14.1 Intangibles (pre 2017)	-	-	-	-	-	7%	-	-	-	-
13.	17 Roads, sidewalk, parking lot or storage areas	-	-	-	-	-	8%	-	-	-	-
14.	38 Heavy work equipment	-	-	-	-	-	30%	-	-	-	-
15.	41 Storage assets	-	-	-	-	-	25%	-	-	-	-
16.	45 Computers - Hardware acquired after March 22, 2004	-	-	-	-	-	45%	-	-	-	-
17.	49 Transmission pipeline additions acquired after February 23, 2005	-	-	-	-	-	8%	-	-	-	-
18.	50 Computers hardware acquired after March 18, 2007	3,173.6	13,147.9	14,327.6	24,665.0	20,311.7	55%	13,565.7	11,171.4	3,935.5	16,304.0
19.	51 Distribution pipelines acquired after March 18, 2007	-	-	-	-	-	6%	-	-	-	-
20.	Total	\$ 3,173.6	\$ 13,536.5	69,902.3	81,127.9	48,487.6		\$ 67,535.2	\$ 38,516.2	5,540.7	44,922.6

	2020	2021
CCA Variance (i) - (j)	10,362.8	29,019.0
Tax Rate	26.5%	26.5%
Earnings Impact of Accelerated CCA	2,746.1	7,690.0
Earnings Impact Grossed-up for Taxes Related to Integrated Capital Additions	3,736.3	10,462.6

2022 TRANSITION IMPACT OF ACCOUNTING CHANGES DEFERRAL

ACCOUNT – EGD RATE ZONE

1. The purpose of the Transition Impact of Accounting Changes Deferral Account (TIACDA) is to track the un-cleared Other Post Employment Benefit (OPEB) costs which the OEB has approved for recovery. Within EB-2011-0354, the OEB approved the recovery of OPEB costs, which were forecast to be \$90 million at the end of 2012, evenly over a 20-year period, commencing in 2013. The OPEB costs needed to be recognized as a result of EGD having to account for post-employment expenses on an accrual basis, upon transition to USGAAP for corporate reporting purposes in 2012. The use of USGAAP for regulatory purposes was approved within the 2013 rate proceeding, EB-2011-0354.
2. The final amount recorded in the TIACDA as of the end of 2012 was \$88.716 million. The first nine installments (for each of 2013 through 2021) of \$4.436 million each (1/20 of \$88.716 million), were approved for recovery within the EB-2013-0046, EB-2014-0195, EB-2015-0122, EB-2016-0142, EB-2017-0102, EB-2018-0131, EB-2019-0105, EB-2020-0134, and EB-2021-0149 proceedings.
3. Enbridge Gas is now requesting recovery of the tenth, or 2022 installment of the OEB-Approved TIACDA amount, in the amount of \$4.436 million (1/20 of \$88.716 million). As per the approved description and scope of the account, interest is not applicable to the balances to be cleared from the TIACDA.

2021 STORAGE & TRANSPORTATION DEFERRAL ACCOUNT

EGD RATE ZONES

1. The purpose of the 2021 Storage & Transportation Deferral Account (S&TDA) is to record the difference between the forecast cost of Storage and Transportation included in the Company's approved rates and the actual cost of Storage and Transportation incurred by the Company. Storage and Transportation cost includes cost of service and market-based pricing.
2. The S&TDA also records the variance between the forecast Storage and Transportation demand levels and the actual Storage and Transportation demand levels. In addition, the S&TDA is used to record amounts received by the Company related to deferral account dispositions of other utilities deferral accounts.
3. The balance in the 2021 S&TDA that the Company is proposing to collect from customers is \$7.9 million plus interest. A detailed breakdown of the S&TDA is provided in Exhibit D, Tab 1, Schedule 1.
4. The primary driver for the balance in the 2021 S&TDA is higher than forecasted transportation prices and higher than forecasted market-based storage costs in 2021, partially offset by a \$1.6M refund from the Union rate zone as part of Union's 2019 deferral disposition. Transportation prices are determined by the OEB-approved M12 Rate Schedule.
5. As outlined in the 2021 Annual Update to the 5 Year Gas Supply Plan, Enbridge Gas purchases market-based storage services on behalf of customers in the EGD rate zone through a competitive blind storage RFP process. On January 4, 2021, Enbridge Gas initiated an RFP for market-based storage capacity with deliveries to Dawn. The RFP was conducted by Guidehouse Inc. The RFP requested offers of storage services with terms of up to 5 years commencing April 1, 2021 with firm

injections from May to September and firm withdrawals from December to March.

The RFP letter is provided as Exhibit D, Tab 1, Schedule 5.

6. Enbridge Gas required this annual replacement of third-party storage in order to reliably and cost effectively meet demand on peak winter days as well as retain late season deliverability. The RFP responses were received by Enbridge Gas on January 25, 2021 with conforming offers from three different counterparties with multiple terms, prices and injection/withdrawal parameters. The RFP manager made the recommendation and Enbridge Gas transacted based on the recommendation. Bids received and those that were selected are outlined in Confidential Exhibit D, Tab 1, Schedule 6.

2021 TRANSACTIONAL SERVICES DEFERRAL ACCOUNT
EGD RATE ZONE

1. The concept of Transactional Services operates under the premise that if circumstances arise where the assets acquired by Enbridge Gas to meet customer demand are not fully required then those assets can be made available to generate third party revenue. Transactional Services are the optimization of these assets.
2. Transactional Services optimization can be grouped into two different categories – storage optimization and transportation optimization. Storage optimization transactions typically rely on the storage of or the loan of gas between two points in time at the same location (i.e. Dawn). Transportation optimization transactions typically rely on the exchange of gas on the day between two locations.
3. Any revenues received from Transactional Services are to be shared 90:10 between the ratepayer and the Company. The EGD rate zone rates include an upfront benefit of \$12.0 million in Transactional Services revenue that has been applied to reduce the overall costs to be collected from EGD rate zone ratepayers. The purpose of the TSDA is to capture the difference between the total ratepayer share of transactional services revenue and the amount already included in rates.
4. During 2021 the Company generated a total of \$17.5 million in net Transactional Services revenue, of which the ratepayer portion represents \$15.8 million, through a combination of Storage and Transportation Optimization. Exhibit D, Tab 1, Schedule 2 provides a breakdown of Transactional Services revenue by type of transaction, and sets out the details of the amount, \$3.8 million proposed to be credited to-customers through the disposition of the 2021 TSDA. For comparison purposes the schedule also includes amounts recorded in the applicable TSDA accounts for years 2020, 2019, 2018, and 2017.

5. The transactions that Enbridge Gas entered into in 2021 contained the three elements of Transactional Services as were described in the Company's evidence in EB-2013-0046 in that they were unplanned, the result of a Third-Party service request and were available because of temporary surplus capacity.

2021 UNACCOUNTED-FOR GAS VARIANCE ACCOUNT

EGD RATE ZONE

1. This evidence provides the volumetric variance underpinning the balance in the 2021 Unaccounted-For Gas Variance Account (UAFVA). It will describe the 2021 variance relative to historical Unaccounted-For Gas (UAF) volumes for the EGD rate zone.
2. UAF is the difference between natural gas delivered into the distribution system as billed by third-party transmission entities (namely, TC Energy and Union Gas¹), and natural gas consumed by the customers in the EGD rate zone and EGD own use gas and line pack gas. Owing to its residual nature, UAF cannot be measured directly. UAF can arise from meter differences, operational or external factors such as line leakage, unmetered uses, and third party damages. In addition, because gas volumes are affected by temperature and pressure, measurement is made more difficult.
3. The 2021 level of UAF for the EGD rate zone was determined to be 115,553 10³m³. The variance of 8,876 10³m³, which is the difference between actual UAF volume and the forecast UAF volume of 106,677 10³m³, underpins the \$0.7 million balance that is captured in the UAFVA. Exhibit D, Tab 1, Schedule 3 provides the detail calculations of the UAFVA balance.
4. The 2019 UAF study was filed as part of the 2020 rate application (EB-2019-0194). The report found that the primary sources for UAF include physical losses, retail meter variation and gate station meter variations. The report noted that

¹ As of January 1, 2019, Union Gas Limited and Enbridge Gas Distribution merged to become Enbridge Gas Inc.

Enbridge Gas' UAF levels are generally lower than competitive gas utilities over the past 10 years. The year-to-year fluctuations are a result of many factors including weather, estimation variation, measurement variation, and billing and accounting adjustments. The practices and initiatives to monitor and manage sources of UAF are generally consistent with those of other gas utilities. As part of the Decision and Order for the 2020 rate application (EB-2019-0194), EGI agreed to provide a "progress report" about the implementation of the UFG report recommendations in its 2022 rates application. A UFG Progress Report was filed as part of EB-2021-0148. The OEB noted that issues related to UFG were out of scope in the 2022 rate application, noting Enbridge Gas's commitment "to assess its UFG forecasting methodology in the 2024 rebasing proceeding and to include information about the implementation of the UFG Report recommendations and other activities to address UFG, and the impacts of such activities."

5. As shown in Tables 1 and 2 in the following pages, UAF within the EGD rate zone has been quite volatile over the years, showing some stability from 2010-2012, and followed by higher levels especially in 2014, 2016, 2018 and 2019. The 2021 UAF level falls within the 95% confidence interval, bounded by (9,125) 10^3m^3 and 167,748 10^3m^3 .

Table 1: Unaccounted-For Gas Volumes (10^3 m^3), 1991-2021

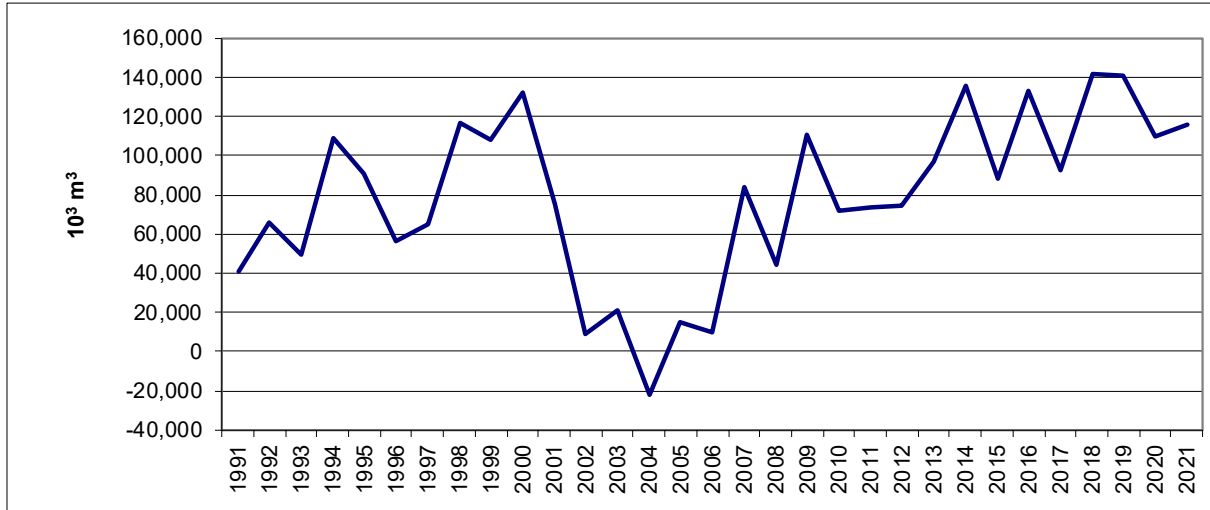


Table 2	
<i>Col.1</i>	<i>Col.2</i>
Calendar Year	UAF Volumes (10³ m³)
1991	40,662
1992	66,028
1993	49,782
1994	108,765
1995	90,655
1996	56,739
1997	65,228
1998	116,376
1999	108,201
2000	132,021
2001	75,606
2002	9,284
2003	21,412
2004	-22,406
2005	14,815
2006	10,274
2007	83,823
2008	44,424
2009	110,917
2010	72,104
2011	73,355
2012	74,762
2013	97,361
2014	135,380
2015	88,438
2016	133,112
2017	93,077
2018	142,086
2019	140,594
2020	110,234
2021	115,553
	1991-2021
Standard deviation	43,098
Mean	79,312
Lower bound*	-9,125
Upper bound*	167,748
*95% confidence interval with 27 degrees of freedom (number of observations-1)	

2021 ACTUAL AVERAGE USE TRUE-UP VARIANCE ACCOUNT

EGD RATE ZONE

1. The purpose of this evidence is to provide information in support of the 2021 Average Use True-up Variance Account (AUTUVA) balance.
2. Exhibit D, Tab 1, Schedule 4 details the calculations of the \$14.93 million that will be collected from ratepayers. The collection is attributable to actual Rate 1 (residential) and Rate 6 (apartment, small commercial and industrial) average uses being lower than 2021 forecast levels.
3. Lower weather-normalized average uses are primarily attributable to higher actual natural gas prices and worse economic conditions than were forecast for 2021. Higher gas prices and lower employment growth have led to lower consumption for both Rate 1 and Rate 6 customers. Rate 6 customers and their consumption patterns are heavily impacted by the economic conditions under the COVID-19 pandemic. Lower GDP growth and higher (doubled) commercial vacancy rates in 2021 than were expected have been other factors which also contributed to lower average use for Rate 6 customers.
4. The purpose of the AUTUVA is to record (true-up) the revenue impact (exclusive of gas costs) of the normalized volumetric difference between the forecast of average use per customers in Rate 1 and Rate 6 and the actual weather-normalized average use experienced during the year. The revenue impact is calculated using a unit rate determined in the same manner as the impact used in the derivation of the Lost Revenue Adjustment Mechanism (LRAM).

5. As detailed in Exhibit D, Tab 1, Schedule 4, the calculation of the volumetric variance between forecast average use and actual normalized average use subtracts the volumetric impact of Demand Side Management (DSM) programs in the year. As has been the case in previous applications, since the audited actual volume savings of 2021 DSM activities will not be available until a later date, the 2021 OEB-Approved Budget DSM volumes are used as an estimate of 2021 actuals. Without the exclusion of a DSM volumetric variance in the AUTUVA calculation, the impacts of DSM are inherently included. As a result, 2021 LRAM amounts which will be filed at a later date, will exclude the impact of Rate 1 and Rate 6 customers.

2021 DEFERRED REBATE ACCOUNTEGD RATE ZONE

1. The purpose of the 2021 Deferred Rebate Account (DRA), consistent with prior fiscal years, was to record any amounts payable to, or receivable from, EGD rate zone customers as a result of clearing Deferral and Variance Accounts, which remain outstanding due to the inability to locate such customers.
2. During 2021, the Company cleared 2017 and 2018 DSM related deferral accounts, approved as part of the EB-2020-0067 proceeding, over the April through June 2021 period. In addition, 2019 DSM related deferral accounts approved as part of the EB-2021-0072 proceeding, as well as the 2019 deferral accounts approved as part of the EB-2020-0134 proceeding, were cleared in October 2021.
3. The \$4.4 million recorded in the 2021 DRA and requested for clearance (and corresponding interest of \$53.5 thousand), reflects the outstanding amount resulting from the clearance of deferral and variance accounts in the EGD rate zone which occurred during 2021 and the inability to locate all the intended customers.

2021 ONTARIO ENERGY BOARD COST ASSESSMENT VARIANCE ACCOUNT
EGD RATE ZONE

1. The purpose of the 2021 Ontario Energy Board Cost Assessment Variance Account (OEBCAVA) was to record any material variances between the OEB costs assessed to Enbridge Gas (relevant to the EGD rate zone) through application of the revised Cost Assessment Model (CAM), which became effective April 1, 2016, and the OEB costs which were included in EGD rate zone rates, which were determined through application of the prior Cost Assessment Model. The scope of the account is consistent with prior OEBCAVAs. However, in accordance with the EB-2020-0134 OEB-approved Settlement Proposal¹, in EGI's 2019 Earnings Sharing and Deferral Disposition proceeding, the base OEB costs assumed to be included in rates have been escalated to reflect the growth in the amount recovered through rates, which results from annual price cap adjustments and customer growth. The OEBCAVA was originally approved for establishment by an OEB letter dated February 9, 2016, entitled: *Revisions to the Ontario Energy Board Cost Assessment Model*.
2. The amount recorded within the 2021 OEBCAVA is \$2.550 million, plus interest of \$0.032 million for a total debit balance of \$2.582 million. This amount reflects the variance between OEB costs assessed to Enbridge Gas (relevant to EGD rate zone) in each quarter of fiscal 2021, utilizing the revised CAM, and EGD's average quarterly OEB cost assessment under the prior CAM, escalated in accordance with the EB-2020-0134 OEB-approved Settlement Proposal.
3. In order to calculate the amount to be recovered through the 2021 EGD rate zone OEBCAVA, the Company first needed to apportion the actual 2021 OEB assessed costs between the legacy rate zones. Commencing with the OEB's 2019 / 2020

¹ EB-2020-0134, Decision on Settlement Proposal, January 25, 2021, pages 5-6.

fiscal first quarter assessment (for the period April 1, 2019 through June 30, 2019), and continuing since, EGI has been receiving one consolidated quarterly bill for the amalgamated utility. To apportion the quarterly assessments received in 2021 between rate zones, the assessments were prorated based on the total invoices received by each legacy utility for the OEB's 2018 / 2019 fiscal year (for the period April 1, 2018 through March 31, 2019), the final year for which the OEB issued invoices to each legacy utility. Table 1 below shows the proration of the OEB's 2018 / 2019 fiscal year assessments between each legacy utility / rate zone (59.76% EGD rate zone, 40.24% Union rate zones). Table 2 shows the apportionment of EGI's 2021 assessed costs to the EGD rate zone, and the calculation of the amount recorded in the 2021 EGD rate zone OEBCAVA.

4. To calculate the amount for recovery through the 2021 EGD rate zone OEBCAVA, the Company also needed to establish the base comparator, reflecting the OEB costs included in EGD rate zone rates, determined through application of the prior Cost Assessment Model. In accordance with the EB-2020-0134 OEB-approved Settlement Proposal, the amount reflected in rates is to be increased, or escalated, to reflect the growth in the amount recovered as a result of annual price cap adjustments and customer growth. To establish the 2021 base comparator, the Company escalated the 2020 quarterly comparator of \$0.773 million by the sum of the 2021 Price Cap Index (PCI) of 1.70%, and the EGD rate zone ICM threshold calculation Growth Factor (g) of 1.73%, which were approved as part of EGI's 2021 Rate Application (EB-2020-0181). The escalation resulted in a 2021 quarterly comparator of \$0.799 million ($\$0.773 \text{ million} * (1 + (1.70\% + 1.73\%))$). As noted above, Table 2 below shows the apportionment of EGI's actual 2021 assessed costs to the EGD rate zone, and the calculation of the amount recorded in the 2021 EGD rate zone OEBCAVA utilizing a base comparator of \$0.799 million.

5. Within this proceeding, the Company is requesting clearance of the principal and interest balances recorded in the 2021 OEBCAVA, in the amount of \$2.550 million and \$0.032 million respectively, as shown in Exhibit C, Tab 1, Schedule 1.

Table 1OEB 2018/2019 Cost Assessments

	<u>EGD</u>	<u>UGL</u>	<u>Total</u>
Apr. 1 to Jun. 30, 2018	1,467,963.00	988,479.00	2,456,442.00
Jul. 1 to Sep. 30, 2018	1,356,860.00	913,873.00	2,270,733.00
Oct. 1 to Dec. 31, 2018	1,356,860.00	913,873.00	2,270,733.00
Jan. 1 to Mar. 31, 2019	1,356,860.00	913,873.00	2,270,733.00
	<u>5,538,543.00</u>	<u>3,730,098.00</u>	<u>9,268,641.00</u>
Percentage of Total	59.76%	40.24%	100.00%

Table 2Calculation of 2021 EGD RZ OEBCAVA

<u>Period</u>	<u>EGI Assessment</u>	<u>EGD Rate Zone Share (59.76%)</u>	<u>Average cost assessment Comparator</u>	<u>Variance to UGL Rate Zone OEBCAVA</u>
Jan. 1 to Mar. 31, 2021	2,497,219.00	1,492,231.15	799,494.06	692,737.09
Apr. 1 to Jun. 30, 2021	2,364,191.00	1,412,739.31	799,494.06	613,245.25
Jul. 1 to Sep. 30, 2021	2,379,076.00	1,421,633.95	799,494.06	622,139.89
Oct. 1 to Dec. 31, 2021	2,379,076.00	1,421,633.95	799,494.06	622,139.89
				<u>2,550,262.12</u>

2021 DAWN ACCESS COSTS DEFERRAL ACCOUNT
EGD RATE ZONE

1. The purpose of the Dawn Access Costs Deferral Account (DACDA), as established in the EB-2014-0323 Settlement Agreement, was to record for recovery the revenue requirement impact of the incremental costs incurred to implement the Dawn Transportation Service (DTS), including the costs for required system changes. In addition, in accordance with Legacy EGD's 2017 Rate Application Settlement Proposal (EB-2016-0215) the revenue requirement related to additional costs incurred to accommodate the heat value conversion modification, implemented in conjunction with the Dawn Transportation Service system development process, were also to be recorded within this account. Under the terms of the EB-2014-0323 Settlement Agreement, recovery of amounts recorded in the DACDA will be from all bundled customers, regardless of whether they are system or direct purchase and regardless of the service to which they currently subscribe, because all have the option of taking DTS if they so choose. Further details explaining the DACDA, including the recovery method, are included within Section 2.7 of the Settlement Agreement filed at Exhibit B, Tab 2, Schedule 1 of the EB-2014-0323 proceeding.

2. As was indicated in the EB-2018-0131, EB-2019-0105, EB-2020-0134, and EB-2021-0149 proceedings (in support of the clearance of the 2017 through 2020 revenue requirement amounts recorded in the 2017 through 2020 DACDAs), all incremental costs incurred by the Company to implement the DTS (and functionality for 2 additional receipt points) and heat value conversion modification were capital in nature. Capital costs of \$6.5 million were incurred to develop, test, and integrate enhancements to the functionality of Enbridge's EnTRAC and connected systems. The systems modifications were placed into service effective November 1, 2017, in conjunction with the implementation of Phase 2 of the Dawn

Access Settlement. The annual revenue requirement amounts sought for refund/recovery in association with those capital costs, includes the typical items in a cost of service revenue requirement, such as total return on rate base, including interest and return on equity, depreciation, and income taxes.

3. Within this proceeding, the Company is requesting clearance of the 2021 revenue requirement, or principal balance, of \$1.968 million (and corresponding interest of \$0.0179 million) as part of the requested one-time rate rider adjustment in January 2023, as shown in the proposed clearance balances at Exhibit C, Tab 1, Schedule 1. As indicated above, this amount represents the 2021 revenue requirement associated with the capital spending incurred to accommodate the DTS and heat value changes, which were placed into service in 2017. The Company has used the 2021 actual required capital structure within the 2021 revenue requirement calculation (consistent with the use of the actual capital structures which were utilized in determining previous revenue requirements which were approved for clearance). There will also be revenue requirement amounts to be recorded in relation to this spending in 2022, at which point the costs will be fully depreciated. The 2021 amount was slightly lower than 2020, due to a declining rate base value and lower required rate of return resulting in a lower cost of capital, but was higher than 2017 and 2018 as both years' revenue requirements benefited from a significant Capital Cost Allowance (CCA) tax deduction that does not repeat in subsequent years beyond 2018.
4. The revenue requirement sought for recovery will be allocated to the various rate classes based on the bundled annual deliveries of each rate class.
5. The determination of the 2021 DACDA revenue requirement deferral account amount and related costs are shown below. The approved 2017, 2018, 2019 & 2020 revenue requirement amounts are also shown for continuity.
Page Break

UTILITY CAPITAL STRUCTURE
 2021 DACDA IMPACTS

Line No.	2017 Actual Capital Structure			2018 Actual Capital Structure			2019 Actual Capital Structure			2020 Actual Capital Structure			2021 Actual Capital Structure					
	Component	Indicated Cost Rate	Return Component	Component	Indicated Cost Rate	Return Component	Component	Indicated Cost Rate	Return Component	Component	Indicated Cost Rate	Return Component	Component	Indicated Cost Rate	Return Component			
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
1. Long-term debt	56.88	4.86	2.76	57.05	4.72	2.69	61.13	4.44	2.71	63.07	4.38	2.76	60.03	4.35	2.61			
2. Short-term debt	<u>5.57</u>	1.05	<u>0.06</u>	<u>5.65</u>	1.81	<u>0.10</u>	<u>2.87</u>	2.04	<u>0.06</u>	<u>0.93</u>	0.60	<u>0.01</u>	<u>3.97</u>	0.31	<u>0.01</u>			
3.	62.45		2.82	62.70		2.80	64.00		2.77	64.00		2.77	64.00		2.62			
4. Preference shares	1.55	2.32	0.04	1.30	2.98	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
5. Common equity	<u>36.00</u>	8.78	<u>3.16</u>	<u>36.00</u>	9.00	<u>3.24</u>	<u>36.00</u>	8.98	<u>3.23</u>	<u>36.00</u>	8.52	<u>3.07</u>	<u>36.00</u>	8.34	<u>3.00</u>			
6.	<u>100.00</u>		<u>6.02</u>	<u>100.00</u>		<u>6.07</u>	<u>100.00</u>		<u>6.01</u>	<u>100.00</u>		<u>5.84</u>	<u>100.00</u>		<u>5.63</u>			
	(\$ 000's)			2017			2018			2019			2020			2021		
7. Ontario Utility Income			685.0			(521.2)			(1,324.9)			(1,349.0)			(1,359.7)			
8. Rate base			259.7			5,623.8			4,283.2			2,912.8			1,542.4			
9. Indicated rate of return			263.77 %			(9.27)%			(30.93)%			(46.31)%			(88.15)%			
10. (Def.) / suff. in rate of return			257.75 %			(15.34)%			(36.94)%			(52.15)%			(93.78)%			
11. Net (def.) / suff.			669.4			(862.7)			(1,582.2)			(1,519.0)			(1,446.5)			
12. Gross (def.) / suff.			<u>910.7</u>			<u>(1,173.7)</u>			<u>(2,152.7)</u>			<u>(2,066.7)</u>			<u>(1,968.0)</u>			

Page Break

UTILITY RATE BASE
2021 DACDA IMPACTS

(\$ 000's)						
Line No.		2017	2018	2019	2020	2021
Property, plant, and equipment						
1.	Cost or redetermined value	264.4	6,421.6	6,453.2	6,453.2	6,453.2
2.	Accumulated depreciation	<u>(4.7)</u>	<u>(797.8)</u>	<u>(2,170.0)</u>	<u>(3,540.4)</u>	<u>(4,910.8)</u>
3.		<u>259.7</u>	<u>5,623.8</u>	<u>4,283.2</u>	<u>2,912.8</u>	<u>1,542.4</u>
Allowance for working capital						
4.	Accounts receivable merchandise finance plan	-	-	-	-	-
5.	Accounts receivable rebillable projects	-	-	-	-	-
6.	Materials and supplies	-	-	-	-	-
7.	Mortgages receivable	-	-	-	-	-
8.	Customer security deposits	-	-	-	-	-
9.	Prepaid expenses	-	-	-	-	-
10.	Gas in storage	-	-	-	-	-
11.	Working cash allowance	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
12.		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
13.	Ontario utility rate base	<u>259.7</u>	<u>5,623.8</u>	<u>4,283.2</u>	<u>2,912.8</u>	<u>1,542.4</u>

UTILITY INCOME
2021 DACDA IMPACTS

Line No.	(\$ 000's)				
	2017	2018	2019	2020	2021
Revenue					
1. Gas sales	-	-	-	-	-
2. Transportation of gas	-	-	-	-	-
3. Transmission and compression	-	-	-	-	-
4. Other operating revenue	-	-	-	-	-
5. Other income	-	-	-	-	-
6. Total revenue	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Costs and expenses					
7. Gas costs	-	-	-	-	-
8. Operation and Maintenance	-	-	-	-	-
9. Depreciation and amortization	112.3	1,372.4	1,370.4	1,370.4	1,370.4
10. Municipal and other taxes	-	-	-	-	-
11. Total costs and expenses	<u>112.3</u>	<u>1,372.4</u>	<u>1,370.4</u>	<u>1,370.4</u>	<u>1,370.4</u>
12. Utility income before inc. taxes	(112.3)	(1,372.4)	(1,370.4)	(1,370.4)	(1,370.4)
Income taxes					
13. Excluding interest shield	(795.4)	(809.5)	(14.1)	-	-
14. Tax shield on interest expense	<u>(1.9)</u>	<u>(41.7)</u>	<u>(31.4)</u>	<u>(21.4)</u>	<u>(10.7)</u>
15. Total income taxes	<u>(797.3)</u>	<u>(851.2)</u>	<u>(45.5)</u>	<u>(21.4)</u>	<u>(10.7)</u>
16. Ontario utility net income	<u>685.0</u>	<u>(521.2)</u>	<u>(1,324.9)</u>	<u>(1,349.0)</u>	<u>(1,359.7)</u>

UTILITY TAXABLE INCOME AND INCOME TAX EXPENSE
2021 DACDA IMPACTS

(\$ 000's)					
Line No.	2017	2018	2019	2020	2021
1. Utility income before income taxes	(112.3)	(1,372.4)	(1,370.4)	(1,370.4)	(1,370.4)
Add Backs					
2. Depreciation and amortization	112.3	1,372.4	1,370.4	1,370.4	1,370.4
3. Large corporation tax	-	-	-	-	-
4. Other non-deductible items	-	-	-	-	-
5. Any other add back(s)	-	-	-	-	-
6. Total added back	<u>112.3</u>	<u>1,372.4</u>	<u>1,370.4</u>	<u>1,370.4</u>	<u>1,370.4</u>
7. Sub total - pre-tax income plus add backs	-	-	-	-	-
Deductions					
8. Capital cost allowance - Federal	3,001.6	3,054.9	53.2	-	-
9. Capital cost allowance - Provincial	3,001.6	3,054.9	53.2	-	-
10. Items capitalized for regulatory purposes	-	-	-	-	-
11. Deduction for "grossed up" Part V1.1 tax	-	-	-	-	-
12. Amortization of share and debt issue expense	-	-	-	-	-
13. Amortization of cumulative eligible capital	-	-	-	-	-
14. Amortization of C.D.E. & C.O.G.P.E.	-	-	-	-	-
15. Any other deduction(s)	-	-	-	-	-
16. Total Deductions - Federal	<u>3,001.6</u>	<u>3,054.9</u>	<u>53.2</u>	<u>-</u>	<u>-</u>
17. Total Deductions - Provincial	<u>3,001.6</u>	<u>3,054.9</u>	<u>53.2</u>	<u>-</u>	<u>-</u>
18. Taxable income - Federal	(3,001.6)	(3,054.9)	(53.2)	-	-
19. Taxable income - Provincial	(3,001.6)	(3,054.9)	(53.2)	-	-
20. Income tax provision - Federal	(450.2)	(458.2)	(8.0)	-	-
21. Income tax provision - Provincial	(345.2)	(351.3)	(6.1)	-	-
22. Income tax provision - combined	(795.4)	(809.5)	(14.1)	-	-
23. Part V1.1 tax	-	-	-	-	-
24. Investment tax credit	-	-	-	-	-
25. Total taxes excluding tax shield on interest expense	<u>(795.4)</u>	<u>(809.5)</u>	<u>(14.1)</u>	<u>-</u>	<u>-</u>
Tax shield on interest expense					
26. Rate base as adjusted	259.7	5,623.8	4,283.2	2,912.8	1,542.4
27. Return component of debt	2.82%	2.80%	2.77%	2.77%	2.62%
28. Interest expense	7.3	157.5	118.6	80.7	40.4
29. Combined tax rate	<u>26.500%</u>	<u>26.500%</u>	<u>26.500%</u>	<u>26.500%</u>	<u>26.500%</u>
30. Income tax credit	(1.9)	(41.7)	(31.4)	(21.4)	(10.7)
31. Total income taxes	<u>(797.3)</u>	<u>(851.2)</u>	<u>(45.5)</u>	<u>(21.4)</u>	<u>(10.7)</u>

UTILITY REVENUE REQUIREMENT
2021 DACDA IMPACTS

Line No.	(\$ 000's)				
	2017	2018	2019	2020	2021
Cost of capital					
1. Rate base	259.7	5,623.8	4,283.2	2,912.8	1,542.4
2. Required rate of return	<u>6.02%</u>	<u>6.07%</u>	<u>6.01%</u>	<u>5.84%</u>	<u>5.63%</u>
3. Cost of capital	15.6	341.4	257.4	170.1	86.8
Cost of service					
4. Gas costs	-	-	-	-	-
5. Operation and Maintenance	-	-	-	-	-
6. Depreciation and amortization	112.3	1,372.4	1,370.4	1,370.4	1,370.4
7. Municipal and other taxes	-	-	-	-	-
8. Cost of service	<u>112.3</u>	<u>1,372.4</u>	<u>1,370.4</u>	<u>1,370.4</u>	<u>1,370.4</u>
Misc. & Non-Op. Rev					
9. Other operating revenue	-	-	-	-	-
10. Other income	-	-	-	-	-
11. Misc. & Non-operating Rev.	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Income taxes on earnings					
12. Excluding tax shield	(795.4)	(809.5)	(14.1)	-	-
13. Tax shield provided by interest expense	<u>(1.9)</u>	<u>(41.7)</u>	<u>(31.4)</u>	<u>(21.4)</u>	<u>(10.7)</u>
14. Income taxes on earnings	<u>(797.3)</u>	<u>(851.2)</u>	<u>(45.5)</u>	<u>(21.4)</u>	<u>(10.7)</u>
Taxes on (def.) / suff.					
15. Gross (def.) / suff.	910.7	(1,173.7)	(2,152.7)	(2,066.7)	(1,968.0)
16. Net (def.) / suff.	<u>669.4</u>	<u>(862.7)</u>	<u>(1,582.2)</u>	<u>(1,519.0)</u>	<u>(1,446.5)</u>
17. Taxes on (def.) / suff.	<u>(241.3)</u>	311.0	570.5	547.7	521.5
18. Revenue requirement	(910.7)	1,173.6	2,152.8	2,066.8	1,968.0
Revenue at existing Rates					
19. Gas sales	0.0	0.0	0.0	0.0	0.0
20. Transportation service	0.0	0.0	0.0	0.0	0.0
21. Transmission, compression and storage	0.0	0.0	0.0	0.0	0.0
22. Rounding adjustment	<u>0.0</u>	<u>(0.1)</u>	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>
23. Revenue at existing rates	0.0	(0.1)	0.1	0.0	0.0
24. Gross revenue (def.) / suff.	<u>910.7</u>	<u>(1,173.7)</u>	<u>(2,152.7)</u>	<u>(2,066.8)</u>	<u>(1,968.0)</u>

ACCOUNTS WITH A ZERO BALANCEEGD RATE ZONE

1. The following 2021 accounts for the EGD Rate Zone have no balance, and are therefore not requested for clearance to customers:
 - Gas Distribution Access Rule Impact (GDARIDA) Deferral Account
 - Electric Program Earnings Sharing (EPESDA) Deferral Account
 - Pension and OPEB Forecast Accrual vs. Actual Cash Payment Differential Variance Account
 - Open Bill Revenue (OBRVA) Variance Account
 - Ex-Franchise Third Party Billing Services (EXTPBSDA) Deferral Account
 - RNG Injection Service (RNGISVA) Variance Account

2. Consistent with past annual deferral and variance account clearance proceedings, Enbridge Gas has not listed accounts that will be reviewed through other processes in Exhibit C, Tab 1, Schedule 1, and these accounts are not addressed in this proceeding. Examples include the PGVA, DSM related accounts and Federal Carbon Charge accounts.

BREAKDOWN OF THE 2021 STORAGE AND TRANSPORTATION DEFERRAL ACCOUNT ("2021 S&TDA") - EGD RATE ZONE

Line No.	Contracted Union Capacity	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
		Budgeted Daily Contract Demand Volume (GJ)	Monthly Demand Toll Assumed in 2018 Budget (\$/GJ)	Forecasted Annual Cost ⁽²⁾ (\$Millions)	Actual Daily Contract Demand Volume (GJ)	Monthly Demand Toll Effective January 1, 2021 to December 31, 2021 (\$/GJ)	Annual Cost ⁽³⁾ (\$Millions)	Balance in the 2021 S&TDA ⁽⁴⁾ (\$Millions)
1.	Union Gas Dawn to Lisgar	67,929	2.865	2.3	67,929	3.110	2.5	
2.	Union Gas Dawn to Parkway	2,792,173	3.402	114.0	2,792,173	3.665	122.8	
3.	Union Gas Dawn to Parkway - M12X	200,000	4.239	10.2	200,000	4.530	10.9	
4.	Union Gas F24 T	85,000	0.069	0.1	85,000	0.073	0.1	
5.	Union Transmission Costs			126.6			136.3	(9.7)
6.	Dawn T Service Costs			(11.2)			(14.5)	3.4
7.	Federal Carbon Costs			-			0.9	(0.9)
8.	Union & Third Party Market Based Storage			20.1			22.4	(2.3)
9.	2019 Deferral Disposition - UG ⁽¹⁾			-			(1.6)	1.6
10.	Total			135.5			143.5	(7.9)

Notes

(1) Transportation deferral adjustments related to 2019 S&TDA reduced actual costs by \$1.6M

M12 Transport (\$1.6M), C1 Transport \$0.003M, M16 Transport (\$0.01M)

(2) Col. 1 * Col. 2 * 12

(3) Col. 4 * Col. 5 * 12

(4) Col. 3 - Col. 6

TRANSACTIONAL SERVICES REVENUE BY TYPE OF TRANSACTION ("TSDA") - EGD RATE ZONE

Line No.	Particulars	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6
		2017 Transactional Services Revenue (\$000's)	2018 Transactional Services Revenue (\$000's)	2019 Transactional Services Revenue (\$000's)	2020 Transactional Services Revenue (\$000's)	2021 Transactional Services Revenue (\$000's)
1.	Storage Optimization	1,550.1	423.9	60.7	0.0	0.0
2.	Transportation Optimization	10,393.3	14,292.4	13,084.5	17,643.4	17,509.0
3.	Transactional Services Revenue	11,943.5	14,716.2	13,145.2	17,643.4	17,509.0
4.	Amount Included in Rates	12,000.0	12,000.0	12,000.0	12,000.0	12,000.0
5.	Less Ratepayer Portion of TS	10,749.1	13,244.6	11,830.7	15,879.1	15,758.1
6.	TSDA sub-total	1,250.9	(1,244.6)	169.3	(3,879.1)	(3,758.1)
7.	ETT Revenue - Rider H	44.5	60.1	35.1	5.8	146.1
8.	TSDA Total	1,206.4	(1,304.7)	134.3	(3,884.9)	(3,904.1)

BREAKDOWN OF THE 2021 UNACCOUNTED-FOR GAS VARIANCE ACCOUNT ("2021 UAFVA") - EGD RATE ZONE

Line No.	Particulars	Col . 1	Col . 2	Col . 3	Col . 4	Col . 5	Col . 6	Col . 7	Col . 8	Col . 9	Col . 10	Col . 11	Col . 12	Col . 13
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1.	Budget UAF (10 ³ m ³)	17,032.9	18,951.5	16,299.1	11,722.9	6,619.6	3,359.7	2,496.5	2,411.9	2,463.2	3,884.2	8,289.1	13,146.5	106,677.0
2.	PGVA Reference Price	161.8	161.8	161.8	166.2	166.2	166.2	160.4	160.4	160.4	199.0	199.0	199.0	
3.	Budget UAF Dollar	2,755,962.4	3,066,391.9	2,637,234.0	1,948,246.2	1,100,126.1	558,351.4	400,326.0	386,770.1	394,998.5	772,853.2	1,649,323.9	2,615,829.4	18,286,413.2
4.	Actual UAF (10 ³ m ³)	16,278.8	17,595.3	14,023.7	9,948.2	7,948.8	4,076.4	3,400.6	3,549.0	3,538.1	3,692.1	8,429.5	11,809.8	104,290.4
5.	UAF Annual Variance (10 ³ m ³) ⁽¹⁾	1,758.0	1,900.2	1,514.5	1,074.3	858.4	440.2	367.2	383.3	382.1	398.7	910.3	1,275.4	11,262.8
6.	Total Actual UAF (10 ³ m ³) ⁽²⁾	18,036.9	19,495.5	15,538.1	11,022.5	8,807.3	4,516.6	3,767.8	3,932.2	3,920.2	4,090.8	9,339.9	13,085.2	115,553.2
7.	PGVA Rate	161.8	161.8	161.8	166.2	166.2	166.2	160.4	160.4	160.4	199.0	199.0	199.0	
8.	Actual UAF Dollar ⁽³⁾	2,918,401.4	3,154,418.6	2,514,103.6	1,831,852.2	1,463,696.7	750,628.0	604,199.2	630,563.0	628,642.4	813,972.6	1,858,413.3	2,603,645.1	19,772,536.2
9.	UAFVA Volume Variance ⁽⁴⁾	162,439.0	88,026.7	(123,130.4)	(116,394.0)	363,570.7	192,276.6	203,873.1	243,792.9	233,643.9	41,119.4	209,089.4	(12,184.3)	1,486,123.1
10.	Line Pack Gas (LPG) Allocation													(406,981.7)
11.	2021 Damage Adjustment													(207,750.3)
12.	2020 Company Use True-up													(117,507.2)
13.	Total 2021 UAFVA ⁽⁵⁾													753,883.9

Notes	16%	17%	13%	10%	8%	4%	3%	3%	3%	4%	8%	11%
(1) UAF Annual Variance Allocation	1,758.03	1,900.20	1,514.48	1,074.35	858.43	440.23	367.24	383.27	382.10	398.73	910.35	1,275.40

- (2) Line 4 + Line 5
- (3) Line 6 * Line 7
- (4) Line 8 - Line 3
- (5) Line 9 + Line 10 + Line 11 + Line 12

2021 AVERAGE USE TRUE UP VARIANCE ACCOUNT - EGD RATE ZONE

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
Rate Class	Budget Annual Use (m ³)	Normalized Actual Annual Use (m ³)	Normalized Usage Variance (1) (m ³)	Budget Customer Meters	Normalized Volumetric Variance (2) (10 ⁶ m ³)	DSM Budget (10 ⁶ m ³)	DSM Actual (10 ⁶ m ³)	DSM Volumetric Variance (3) (10 ⁶ m ³)	Normalized Volumetric Variance Excluding DSM (4) (10 ⁶ m ³)	Unit Rate (\$/m ³)	AUTUVA: Revenue Impact, Exclusive of Gas Costs (5) (\$Millions)
1	2,452	2,404	(48)	2,088,486	(99.4)	(4.8)	(4.8)	0.0	(99.4)	0.0712	(7.07)
6	28,889	27,794	(1,094)	170,204	(186.3)	(10.8)	(10.8)	0.0	(186.3)	0.0422	(7.86)
Total											(14.93)

Notes

- (1) Col. 2 - Col. 1
- (2) Col. 3 * Col. 4
- (3) Col. 7 - Col. 6
- (4) Col. 5 - Col. 8
- (5) Col. 9 * Col. 10



Enbridge Gas Inc.
50 Keil Drive N
Chatham, Ontario N7M 5M1
Canada

January 4, 2021

Subject: Storage at Dawn, injections commencing April 1, 2021

Enbridge Gas Inc. operating as Enbridge Gas Distribution (Enbridge Gas) requires firm natural gas storage services with injections commencing April 1, 2021.

This storage service request is being administered by Guidehouse (formerly Navigant Consulting) on behalf of Enbridge Gas.

All questions and responses are to be directed to paul.moran@navigant.com. Due to the recent acquisition of Navigant Consulting by Guidehouse, we will continue to use the Navigant.com domain for purposes of this RFP. Do not contact Enbridge Gas directly regarding this process.

Enbridge Gas is seeking a diverse portfolio of storage services that both meet and exceed the minimum requirements below. This includes those that allow higher deliverability and access to multiple nomination windows for each gas day.

Enbridge Gas requires that these storage services meet the following specifications:

Term: Up to five (5) years commencing April 1, 2021. To encourage storage contracts term diversity, Enbridge Gas is seeking service offerings of various term lengths. The amount placed will be at Enbridge Gas's discretion.

Term	Potential to be contracted
1 - year	0 PJ's
2 - year	0 - 1 PJ's
3 - year	0 - 2 PJ's
4 - year	0 - 2 PJ's
5 - year	0 - 3 PJ's

Location: Enbridge Gas will deliver gas to Storage Provider at Union Dawn for injection, and Storage Provider will re-deliver gas to Enbridge Gas at Union Dawn for withdrawal. If any transportation capacity is included as part of the storage offering to facilitate Dawn injections and withdrawals, please provide details.

Firm Injection Requirements: Must include the months from May 1 through Sept. 30

Firm Withdrawal Schedule: Must include the months from Dec. 1 through March 31

Responses: Should you be interested in supplying this storage service to Enbridge Gas, please complete the attached Excel form, stating the delivery points, term, MSB and service attributes with the relevant pricing, including demand, commodity charges and other items indicated.¹

The deadline to submit your proposal(s) is **2 p.m. Mountain Daylight Time on Jan. 25, 2021**, after which time Enbridge Gas will contact the parties which submitted proposals that have been selected². Please submit your proposal(s) to the attention of Paul Moran per the instructions in the enclosed attachment.

Additional Information: Enbridge Gas invites all potential participants to review a presentation that has been posted in the Storage and Transportation section of its website, within

[Presentations.](#)

*If you have questions regarding this RFP, please direct to the attention of Paul Moran at the email address provided above. The deadline for any **queries** is 12 p.m.(noon) Mountain Daylight Time on Jan. 12, 2021. All queries and responses will be provided to all parties on Jan. 15, 2021.*

Enbridge Gas will contact successful bidders following the close of the RFP process.

Yours truly,
Paul Moran
Guidehouse

¹ This storage service request may have Dodd Frank Act implications and may require specific clauses to be included in any storage agreement between the parties. Any such storage agreement will not be binding until a definitive agreement is executed by the parties.

² Please note that successful suppliers must meet all of Enbridge's credit criteria. Enbridge, in its sole discretion and for whatever reason, may accept or reject any and all proposals. Enbridge reserves the right at any time after the deadline to conduct negotiations with one or more of the bidders to the exclusion of others, and such negotiations may include changes to the storage service described in this letter.

Number	Respondent	Term (Years)	Amount (GJs)	Withdrawal Period			Withdrawal Ratchet	Ratchet Score	Price			Annual Price per 1 PJ	Annual Price for Provided Volume
		Term (Years)	Amount (GJs)	start	End	Days	max Daily withdrawal		ratchet (minimum days to withdraw)	Ratchet Score	Annual Demand		
[REDACTED]													

UNABSORBED DEMAND COSTS (UDC) VARIANCE ACCOUNTUNION RATE ZONES

1. The balance in the UDC Variance Account is a credit to ratepayers of \$1.666 million plus interest as of December 31, 2022 of \$0.028 million, for a total of \$1.694 million. The \$1.666 million balance is the difference between the actual UDC incurred by the Union Rate Zones and the amount of UDC collected in rates.

1. UDC Recovery in Rates

2. To meet customer demands across the Union rate zones and to meet the planned storage inventory levels at October 31, approved rates for the Union rate zones in 2021 included planned unutilized pipeline capacity of 11.3 PJ in Union North West, 3.1 PJ in Union North East and 0 PJ in Union South. The UDC volumes included in 2021 rates are based on the Gas Supply Plan filed in Union's Dawn Reference Price proceeding¹.
3. As discussed in the Enbridge Gas 5 Year Gas Supply Plan², in Union North, the upstream transportation capacity (long-haul, short-haul and STS) is first sized to meet the design day requirements. The amount of transportation capacity needed to meet average annual demand requirements is less than the capacity required to meet design day requirements. Therefore, a portion of contracted capacity for the Union rate zones is planned to be unutilized. In a warmer than normal year, UDC may be incurred in Union South, and additional UDC in Union North, to balance supply with lower demands. The Union North and Union South transportation portfolios are managed on an integrated basis and the pipeline to leave unutilized, if necessary, is determined based on the least cost option. In the EB-2021-0149

¹ EB-2015-0181, Exhibit A, Tab 2, Appendix A, Schedule 1.

² EB-2019-0137, page 82.

Settlement Proposal related to the disposition of the 2020 UDC Variance account, Enbridge Gas agreed:

“In future deferral and variance account clearance applications related to the deferred rebasing term, Enbridge Gas agrees that it will include evidence reporting on: UDC and transportation capacity released by rate zone, and the costs and revenues transferred between rate zones.³”

Table 1 provides the capacity released by rate zone and the associated UDC costs and/or revenue. The path released does not determine where the UDC costs or associated revenue for the releases will be allocated. Instead, the costs and revenue are allocated based on the portion of the UDC variance driven by each respective rate zone, as can be seen in Table 2.

Table 1
Capacity Released & Related Costs Incurred

Line No.	Particulars	Union North East	Union North West	Union South	Total Franchise Area
1	Capacity Released (TJ)	2,953	5,957	19,631	28,541
2	UDC Costs Incurred (\$000's)	1,522	3,754	3,040	8,315
3	Released UDC Capacity (\$000's)	0	(1,238)	(123)	(1,361)

4. Enbridge Gas collected \$8.620 million in rates for UDC for the Union rate zones during 2021 and recorded an associated interest credit of \$0.028 million (see Table 2). Actual UDC costs in 2021 were \$8.315 million offset by \$1.361 million in released capacity value, resulting in a net cost of \$6.954 million (see Table 3).

³ EB-2021-0149, Exhibit N1, Tab 1, Schedule 1, page 15.

Actual UDC costs are allocated to Union North West, Union North East and Union South in proportion to the actual supply and demand variances which occurred in each respective area.

5. The variance between the amounts collected in rates and the actual UDC costs, including the interest credit of \$0.028 million, results in a net credit to ratepayers in the UDC Variance Account of \$1.694 million.
6. The balance applicable to sales service and bundled DP customers in Union North West is a credit of \$4.806 million and in Union North East, a credit of \$0.033 million. There is a debit of \$3.145 million applicable to sales service customers in Union South.
7. Table 2 provides the derivation of the UDC variance account balances by operational area.

Table 2
UDC Variance Account by Operational Area

Line No.	Particulars (\$000's)	Union North East	Union North West	Union South	Total Franchise Area
1	UDC Collected in Rates	(1,511)	(7,109)	-	(8,620)
2	UDC Costs Incurred (Table 3)	1,479	2,383	3,092	6,954
3	Variance (line 1 + line 2)	(32)	(4,726)	3,092	(1,666)
4	Interest	(1)	(80)	53	(28)
5	(Credit)/Debit to Operations Area	(33)	(4,806)	3,145	(1,694)

A description of each item in Table 2 is set out below:

1.1 UDC Collected in Rates

8. The 2021 OEB-approved rates include \$9.082 million of UDC associated with 14.4 PJ of planned unutilized pipeline capacity in Union North West and Union North East and no planned unutilized pipeline capacity in Union South. The total cost of UDC in rates assumes TC Energy final tolls effective January 1, 2021. On an actual basis in 2021, Enbridge Gas recovered \$8.620 million in Union North West and Union North East and \$0.0 million in Union South.

1.2 UDC Costs Incurred

9. The actual unutilized capacity in 2021 was 28.5 PJ. The level of unutilized capacity experienced in 2021 was largely due to planned unutilized capacity (and resulting UDC) and warmer than normal weather.

10. The costs reflected in the UDC Variance Account are the total demand charges for unutilized pipeline capacity totaling \$8.315 million, partially offset, by the value of \$1.361 million generated from releasing the pipeline transportation capacity to the market. Unutilized upstream transportation capacity is released and sold on the secondary market to minimize UDC. The value generated from the transportation releases is credited to the UDC Variance Account mitigating the overall UDC impact as shown in Table 3 below.

Table 3
UDC Costs Incurred

Line No.	Particulars (\$000's)	Union North East	Union North West	Union South	Total Franchise Area
1	UDC Costs Incurred	1,768	2,849	3,697	8,315
2	Released Capacity Revenue	(289)	(466)	(605)	(1,361)
3	Net UDC Costs (Credit)/Debit	1,479	2,383	3,092	6,954

ACCOUNT NO. 179-131 UPSTREAM TRANSPORTATION OPTIMIZATION – UNION
RATE ZONES

1. The Upstream Transportation Optimization Deferral Account was approved by the OEB in its EB-2011-0210 Decision to capture the variance between the ratepayers' 90% share of actual net revenues from optimization activities, and the amount refunded to ratepayers in rates. The 2021 balance in this deferral account is a debit from ratepayers of \$8.616 million plus interest of \$.078 million for a total debit from ratepayers of \$8.694 million.

2. In setting rates for 2021, the OEB approved a forecast of optimization revenue of \$14.918 million. Of that amount, 90% or \$13.426 million, was credited to ratepayers in the OEB-approved 2021 rates.¹ On an actual basis, consistent with the method approved in its EB-2011-0210 Decision and Rate Order, Union credited \$15.392 million in rates to ratepayers during 2021, \$1.966 million greater than the OEB-approved amount of \$13.426 million. The credit is due to actual sales service volumes exceeding the forecast sales service volumes in rates. The main driver of actual sales service volumes exceeding the forecasted amount is customer growth since 2013.

3. The Company earned \$7.529 million in net revenues from upstream transportation optimization during 2021 in the Union Rate Zones. In accordance with the OEB-approved sharing methodology, 90% of this net revenue, or \$6.776 million, is to be credited to customers. As stated above, \$15.392 million has already been credited through rates; therefore, the deferral balance is a debit from ratepayers of \$8.616 million (\$15.392 million less \$6.776 million).

¹ Detailed schedule last filed at EB-2017-0087 (2018 Rates), Draft Rate Order, Working Papers, Schedule 14, page 1. The credit of \$13.426 million to Union rate zone in-franchise customers is maintained in the setting of rates for the 2019-2023 deferred rebasing period in accordance with the approved rate-setting mechanism.

4. Exhibit E, Tab 1, Schedule 1, provides a summary of the calculation of the balance in this deferral account. 2021 actual Upstream Transportation Optimization revenue in the Union rate zones is lower than 2013 OEB-approved revenue primarily due to the elimination of the TransCanada FT-RAM program (\$5.800 million) and changing market dynamics.

ACCOUNT NO. 179-70 SHORT-TERM STORAGE AND OTHER BALANCING
SERVICES – UNION RATE ZONES

1. The Short-Term Storage and Other Balancing Services Deferral Account includes revenues from C1 Off-Peak Storage, Gas Loans, Supplemental Balancing Services and C1 Short-Term Firm Peak Storage. The deferral account compares the ratepayer share (90%) of net revenue for Short-Term Storage and Other Balancing Services with the amount credited to ratepayers in rates for Short-Term Storage and Other Balancing Services. The net revenue for Short-Term Storage and Other Balancing Services is determined by deducting the costs incurred to provide service from the gross revenue. The balance in this deferral account is a debit from ratepayers of \$3.577 million, plus interest of \$0.0325 million for a total debit from ratepayers of \$3.609 million.

2. As shown in Table 3, the balance is calculated by comparing \$0.974 million (ratepayer 90% share of the actual 2021 Short-Term Storage and Other Balancing Services net revenue of \$1.082 million) to the net revenue included in Union rate zone rates of \$4.551 million.¹ The details of the balance are found at Exhibit E, Tab 1, Schedule 2.

¹ EB-2011-0210, Decision and Rate Order, January 17, 2013, page 16.

Table 3

Deferral Summary: Short-term Storage and Other Storage Services

<u>Line</u>		<u>Actual</u>
<u>No.</u>	<u>Particulars (\$000's)</u>	<u>2021</u>
1	Net Revenue	1,082
2	Ratepayer Portion (90%)	974
3	Approved in Rates	4,551
4	Deferral Balance Payable to/(Collectable from) Ratepayers	<u>(3,577)</u>

- Actual 2021 revenues from C1 Off-Peak Storage, Gas Loans and all other Balancing services of \$1.075 million were \$1.425 million lower than the 2013 OEB-approved forecast of \$2.500 million.
- The C1 Short-Term Firm Peak Storage revenues of \$1.536 million were \$6.347 million lower than the 2013 Board-approved forecast of \$7.883 million. Actual Union rate zone utility storage requirements for 2021 were 8.3 PJ higher than the 2013 OEB-approved forecast, resulting in a decrease in the C1 Short-Term Firm Peak Storage available for sale (from 11.3 PJ in 2013 OEB-approved to 3.0 PJ in 2021). Union rate zone customers received the value of storage directly through the use of the storage space, rather than through the sale of short-term storage.
- Year-over-year, actual utility storage requirements for 2021 were 0.7 PJ lower than the requirement in 2020, resulting in an increase in the C1 Short-Term Peak Storage available for sale (from 2.3 PJ in 2020 to 3.0 PJ in 2021). This is a result of a decrease in the storage requirement for utility customers. The storage requirement for the general service market was calculated using the OEB-approved aggregate excess methodology. The storage requirement for the contract market was calculated specifically for each customer using either the OEB-approved aggregate excess

methodology, the 15 times obligated Daily Contracted Quantity (DCQ) storage methodology, or the 10 times Firm Contract Demand (CD) storage methodology (for those customers who have elected the Customer Managed Service).² Enbridge Gas has included the calculation for utility storage space requirements and the deliverability by rate class at Exhibit E, Tab 1, Schedule 2, Appendix A.³

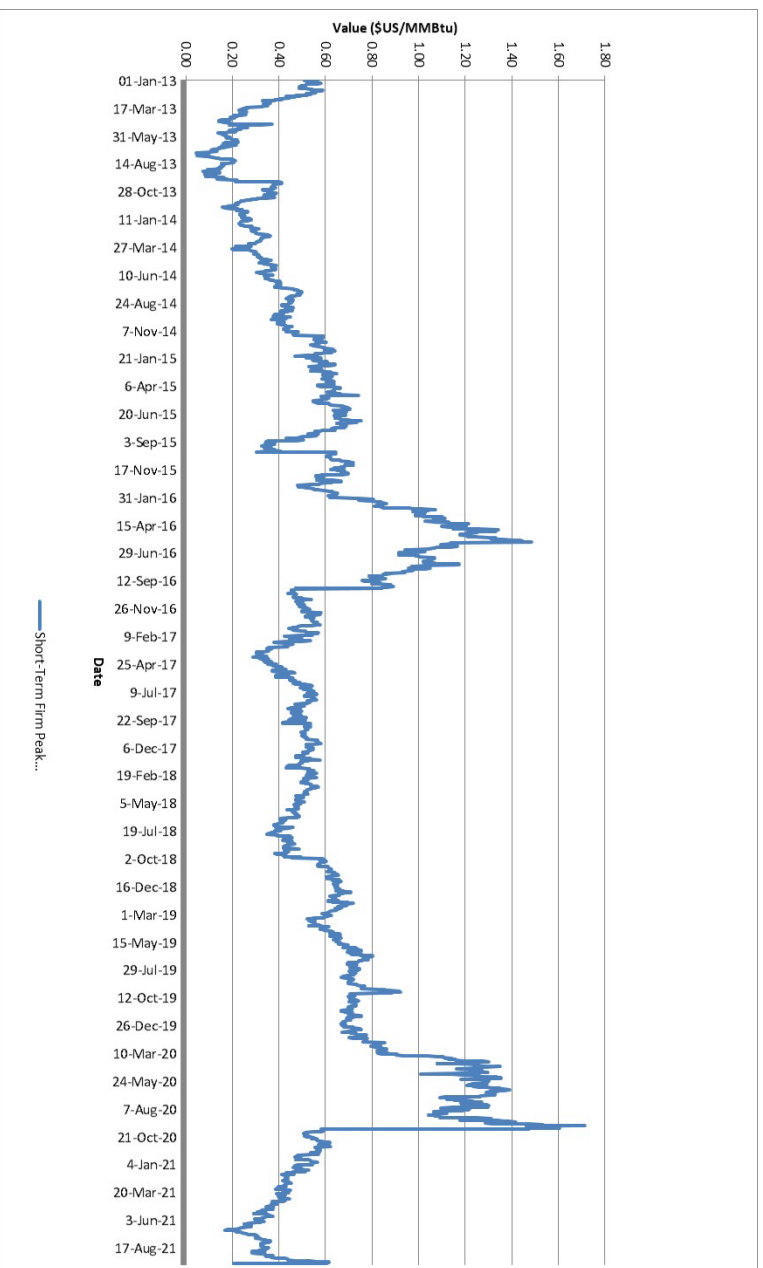
6. The 2013 OEB-approved forecast implied an annual average value for C1 Short-Term Firm Peak Storage of \$0.70/GJ (\$7.883 million/11.3 PJ), and the actual average annual C1 Short-Term Firm Peak Storage value in 2021 was \$0.51/GJ (\$1.5 million/3.0 PJ). Please see Figure 1 for Short-Term Peak Storage values in US dollars.

² EB-2016-0245, Decision and Rate Order, Schedule 1, Settlement Proposal, page 7.

³ EB-2021-0149, Decision on Settlement Proposal, Schedule 1, Settlement Proposal, page 16.

Figure 1

Historical Short-Term Firm Peak Storage Values at Dawn 2013-2021



1. Non-Utility Storage Balances for 2021

7. In its EB-2011-0210 Decision, the OEB directed legacy Union to file a report similar to that ordered in EB-2011-0038 to monitor the inventory related to non-utility storage operations. Exhibit E, Tab 1, Schedule 3 shows the non-utility inventory balances for October and November of 2021 (for legacy Union storage).
8. During the 2021 injection season, the non-utility storage balance peaked on November 18, 2021 at 98.9% full with a balance of 126.1 PJ compared to available space of 127.6 PJ. At October 31, 2021, the date to which the Company manages its storage balance, the non-utility balance was 95.1% of available space. The balance stayed below the total non-utility available space of 100% for the rest of 2021.

9. In EB-2011-0210, the OEB further ordered Union to file a calculation for a storage encroachment payment from Union's non-utility business to Union's utility business, if Union's non-utility business encroached on Union's utility space. There was no encroachment of utility space in 2021 and therefore no calculation applies.

2. Sale of Non-Utility Storage Space

10. Enbridge Gas prioritizes the sale of its legacy Union utility storage ahead of the sale of its short-term non-utility storage and allocates short-term peak storage margins between utility and non-utility as directed by the OEB in EB-2011-0210.⁴ Margins from short-term peak storage services are proportionately split between the utility and non-utility customers based on the utility and non-utility share of the total quantity of short-term peak storage sold each calendar year. Short-term peak sales include any sale of storage space for a term of less than two storage years.
11. In 2021, Enbridge Gas sold a total of 3.0 PJ of short-term peak storage (legacy Union). The total 3.0 PJ was excess utility space, calculated by deducting 97.0 PJ of in-franchise utility requirement (as per the Gas Supply Plan) from the total 100 PJ of in-franchise utility storage. There was no sale of short-term peak storage from non-utility space. Total revenue from the sale of C1 Short-Term Peak Storage (Utility) in 2021 was \$1.536 million. Details of the above sales are reflected in Exhibit E, Tab 1, Schedule 4.

⁴ EB-2011-0210, Decision and Order, pages 116-117.

ACCOUNT NO. 179-133 NORMALIZED AVERAGE CONSUMPTION (NAC)
UNION RATE ZONES

1. The purpose of the NAC deferral account is to record the variance in delivery revenue and storage revenue and costs resulting from the difference between the target NAC included in OEB-approved rates and the actual NAC for general service rate classes Rate M1, Rate M2, Rate 01 and Rate 10. As described in Union's 2014 Deferral Account Disposition¹ proceeding, including the revenue from storage rates in the NAC deferral account requires storage-related costs associated with the difference in target and actual NAC to also be included in the deferral account balance.
2. For 2021, the balance in the NAC deferral account is a debit to ratepayers of \$18.998 million plus interest of \$0.239 million for a total debit to ratepayers of \$19.237 million.
3. The NAC Deferral Account follows the same methodology agreed to by parties in Union's 2014-2018 Incentive Regulation (IR) Settlement Agreement² and as subsequently modified in Union's 2015 Rates³ proceeding.

1. Target and Actual NAC

4. The 2021 target NAC used to calculate base rates for each rate class was approved by the OEB in Enbridge Gas's 2021 Rates⁴ proceeding. The 2019 actual NAC, weather normalized using the 2021 weather normal, was used to determine the 2021 target NAC for each rate class to calculate base rates. Setting the 2021 target

¹ EB-2015-0010.

² EB-2013-0202.

³ EB-2014-0271.

⁴ EB-2020-0095.

NAC based on the 2019 actual NAC recognizes that over the two-year span to the current year, any volumes saved and lost revenues due to DSM activities will be captured by the variance between the target NAC and actual NAC. This is due to the inclusion of the DSM saved volumes within the actual reported consumption.

5. The 2021 forecast usage used to calculate Y factor unit rates for each rate class was approved by the OEB in Enbridge Gas's 2021 Rates proceeding. The unit rates for pass-through (Y factor) costs are derived based on OEB-approved cost allocation and rate design methodologies and are passed through to customers at cost.
6. The 2021 actual NAC for each rate class is weather normalized using the 2021 weather normal, which is produced using the OEB-approved weather methodology consisting of a 50:50 average of the 30-year average and the 20-year trend estimates of annual heating degree-days.
7. Table 1 provides the 2021 target NAC and 2021 actual NAC by rate class for base rates.

Table 1
2021 Target and Actual NAC - Base Rates

<u>Line No.</u>	<u>Particulars (m³/customer)</u>	<u>Rate 01</u>	<u>Rate 10</u>	<u>Rate M1</u>	<u>Rate M2</u>
		(a)	(b)	(c)	(d)
1	2021 Target NAC	2,889	171,540	2,776	168,419
2	2021 Actual NAC	2,766	151,411	2,668	149,840
3	Variance (Target - Actual NAC)	124	20,129	108	18,580

8. Table 2 provides the 2021 target and 2021 actual NAC by rate class for Y factor rates.

Table 2
2021 Target and Actual NAC - Y Factor Rates

Line No.	<u>Particulars (m³/customer)</u>	Rate 01	Rate 10	Rate M1	Rate M2
		(a)	(b)	(c)	(d)
1	2021 Target NAC	2,830	166,842	2,692	169,477
2	2021 Actual NAC	2,766	151,411	2,668	149,840
3	Variance (Target - Actual NAC)	64	15,431	24	19,637

2. Delivery and Storage Revenues

9. The deferral account balance is calculated by multiplying the variance between the weather normalized target NAC and the weather normalized actual NAC by the 2013 OEB-approved number of customers and the 2021 OEB-approved delivery and storage rates for each general service rate class. A credit balance in the NAC Deferral Account reflects that the actual NAC is greater than the target NAC, while a debit balance in the NAC Deferral Account reflects that the actual NAC is less than the target NAC.
10. Table 3 provides the NAC Deferral Account balances by rate class. The detailed calculation of the NAC Deferral Account balance can be found at Exhibit E, Tab 1, Schedule 6.

Table 3
2021 NAC Deferral Account

Line No.	Particulars (\$000s)	Rate 01	Rate 10	Rate M1	Rate M2	Total
		(a)	(b)	(c)	(d)	(e)
1	Delivery Revenue Balances	3,594	2,444	4,539	5,779	16,355
2	Storage Revenue Balances	1,873	1,407	916	886	5,081
3	Storage Cost Balances	(201)	(99)	(890)	(1,249)	(2,438)
4	Interest	64	45	65	65	239
5	Total NAC Deferral Balance	5,330	3,797	4,629	5,481	19,237

3. Deferral Account Impacts

11. For Rate M1, the 2021 actual NAC is lower than the target NAC used to derive base rates by 108 m³/customer (Table 1, line 3, column (c)) and lower than the target NAC used to derive Y factor rates by 24 m³/customer (Table 2, line 3, column (c)). As shown in Table 3 above, this results in a delivery and storage revenue debit to ratepayers of \$5.454 million (\$4.539 million and \$0.916 million respectively). In addition, the NAC volume variance decreases the Rate M1 storage requirement by 1.310 PJ. Accordingly, EGI must refund an amount of \$0.890 million (Table 3, line 3, column (c)) to Rate M1 customers to recognize the decreased Rate M1 storage requirements.

12. For Rate M2, the 2021 actual NAC is lower than the target NAC used to derive base rates by 18,580 m³/customer (Table 1, line 3, column (d)) and lower than the target NAC used to derive Y factor rates by 19,637 m³/customer (Table 2, line 3, column (d)). As shown in Table 3 above, this results in a delivery and storage revenue debit to ratepayers of \$6.665 million (\$5.779 million and \$0.886 million

respectively). In addition, the NAC volume variance decreases the Rate M2 storage requirement by 1.840 PJ. Accordingly, EGI must refund \$1.249 million (Table 3, line 3, column (d)) to Rate M2 customers to recognize the decreased Rate M2 storage requirements.

13. For Rate 01, the 2021 actual NAC is lower than the target NAC used to derive base rates by 124 m³/customer (Table 1, line 3, column (a)) and lower than the target NAC used to derive Y factor rates by 64 m³/customer (Table 2, line 3, column (a)). As shown in Table 3 above, this results in a delivery and storage revenue debit to ratepayers of \$5.467 million (\$3.594 million and \$1.873 million respectively). In addition, the NAC volume variance decreased the Rate 01 storage requirement by 0.240 PJ. Accordingly, EGI must refund an amount of \$0.201 million (Table 3, line 3, column (a)) to Rate 01 customers to recognize the decreased Rate 01 storage requirements.

14. For Rate 10, the 2021 actual NAC is lower than the target used to derive base rates NAC by 20,129 m³/customer (Table 1, line 3, column (b)) and lower than the target NAC used to derive Y factor rates by 15,431 m³/customer (Table 2, line 3, column (b)). As shown in Table 3 above, this results in a delivery and storage revenue debit to ratepayers of \$3.851 million (\$2.444 million and \$1.407 million respectively). In addition, the NAC volume variance decreases the Rate 10 storage requirement by 0.120 PJ. Accordingly, EGI must refund \$0.099 million (Table 3, line 3, column (b)) to Rate 10 customers to recognize the decreased Rate 10 storage requirements.

4. Storage Costs

15. The storage costs recognize that variances between the 2021 target NAC and the 2013 OEB-approved NAC change the storage requirements for each general service rate class. As OEB-approved storage rates are not updated during the IR term to reflect changes in storage requirements due to NAC variances, EGI must capture

the NAC-related change in storage costs in the NAC Deferral Account for the Union rate zones as per the OEB's Decision in Union's 2013 Deferrals Disposition proceeding (EB-2014-0145), page. 9, "starting in 2014, the NAC Deferral Account, which replaces the Average Use Per Customer Deferral Account, will include storage related revenues and costs for general service rate classes."

16. To determine the change in storage requirements for each general service rate class due to NAC variances, the Company calculated the NAC volume variance per customer between its 2021/2022 Gas Supply Plan and the 2013 OEB-approved volumes multiplied by the 2013 OEB-approved number of customers.
17. Using the OEB-approved aggregate excess methodology, EGI calculated the change in storage requirements for each of the general service rate classes due to variances in NAC. The 2021/2022 Gas Supply Plan volumes represent the April 1, 2021 to March 31, 2022 period, which are used to determine the storage requirements for general service rate classes effective November 1, 2021. These general service rate class storage requirements are then used in the calculation of the total in-franchise utility storage space requirement at November 1, 2021. The difference between the total in-franchise utility storage requirement and the total 100 PJ of utility storage represents the excess utility storage capacity available for sale (excess utility space) at November 1, 2021.
18. For Rate M1, the NAC volume variance between the 2021/2022 Gas Supply Plan and the 2013 OEB-approved volumes was a decrease of 6.254 PJ. The majority of the NAC volume variance decrease occurred in the winter months, which decreased the Rate M1 storage requirement by 1.310 PJ. This resulted in decreased storage costs of \$0.890 million (Table 3, line 3, column (c)).

19. For Rate M2, the NAC volume variance between the 2021/2022 Gas Supply Plan and the 2013 OEB-approved volumes was an increase of 4.705 PJ. The majority of the NAC volume variance increase occurred in the summer months, which decreased the Rate M2 storage requirement by 1.840 PJ and resulted in decreased storage costs of \$1.249 million (Table 3, line 3, column (d)).
20. For Rate 01, the NAC volume variance between the 2021/2022 Gas Supply Plan and the 2013 OEB-approved volumes was an increase of 0.164 PJ. The majority of the NAC volume variance increase occurred in the summer months, which decreased the Rate 01 storage requirement by 0.240 PJ and decreased storage costs by \$0.201 million (Table 3, line 3, column (a)).
21. For Rate 10, the NAC volume variance between the 2021/2022 Gas Supply Plan and the 2013 OEB-approved volumes was an increase of 0.543 PJ. The majority of the NAC volume variance increase occurred in the summer months, which decreased the Rate 10 storage requirement by 0.120 PJ and resulted in decreased storage costs of \$0.099 million (Table 3, line 3, column (b)).
22. Overall, the NAC volume variance between the 2021/2022 Gas Supply Plan and the 2013 OEB-approved volumes resulted in a decrease in general service storage requirements of 3.510 PJ. Accordingly, EGI has included a storage cost credit of \$2.438 million in the NAC Deferral Account. Please see Table 4 below for a summary of the change in general service storage requirements due to NAC volume variances by rate class.

Table 4

Change in General Service Storage Requirements from 2013
OEB-approved (based on weather normalized NAC)

	PJ		PJ
Rate M1	(1.310)	Rate 01	(0.240)
Rate M2	(1.840)	Rate 10	(0.120)
Total South	<u>(3.150)</u>	Total North	<u>(0.360)</u>

23. The reduction in storage activity has decreased storage deliverability costs, the commodity-related costs at Dawn and storage inventory carrying costs.

24. The 3.510 PJ reduction in general service storage requirements due to NAC volume variances forms part of the 2.984 PJ of excess utility space available for sale for winter 2021/2022. The revenue from the sale of the 2.984 PJ of excess utility space is recorded in the Short-Term Storage and Other Balancing Deferral Account (Account No. 179-70).

DEFERRAL CLEARING VARIANCE ACCOUNT– UNION RATE ZONES

1. The purpose of the Deferral Clearing Variance Account (DCVA) is to capture the differences between the forecast and actual volumes associated with the disposition of deferral account balances to the Union rate zones. The intent of the variance account is to minimize or eliminate the gains or losses to ratepayers and the Company as a result of volume variances associated with the disposition of deferral account balances.

2. The balance in this variance account is a credit to Union rate zones ratepayers of \$3.120 million, plus interest to December 31, 2022 of a \$0.046 million, for a total credit of \$3.166 million. The balance includes the following residual balances from various dispositions, discussed further below:

a. Prospective Recovery Account Dispositions	(\$ millions)
i. 2017/18 Demand Side Management (DSM)	(1.990)
ii. 2019 Earnings Sharing and Deferrals	(1.982)
iii. 2019 Federal Carbon Pricing Program (FCPP)	(0.291)
b. One-time Adjustment Account Dispositions	
i. 2019 DSM	1.122

3. As reflected in Exhibit E, Tab 1, Schedule 2, page 1, Line 5, the overall balance also reflects a debit of \$0.020 million in relation to the various deferral account dispositions including residual amounts not able to be disposed of as one-time billings and amounts related to manual rebills.

1. Prospective Recovery Account Dispositions

6. Of the account balance, a \$3.971 million credit balance, plus interest of \$0.589 credit, represents an under-refund/over-collection from ratepayers for dispositions disposed of using prospective recovery in the 2017/18 DSM Deferrals Disposition¹ and 2019 Earnings Sharing and Deferrals Disposition² proceedings. Please see Exhibit E, Tab 1, Schedule 5, page 1 for a summary of the deferral account balance disposed of using the prospective recovery method. Additionally, a \$0.291 million credit is a residual balance from the disposition of 2019 federal carbon balances in the 2020 FCPP³ proceeding.

1.1 Union Rate Zones 2017-2018 DSM Deferral (EB-2020-0067)

7. In its EB-2020-0067 Decision, the OEB approved the prospective disposition of the balances in the approved deferral accounts to rate classes through a temporary rate adjustment from April 1, 2021 to June 30, 2021. The total amount approved for prospective recovery from rate classes was a \$24.196 million debit. Please see Exhibit E, Tab 1, Schedule 5, page 2, column (f), for the forecast amount to be recovered by rate class, based on the forecasted volumes as noted in column (a) of the same exhibit.
8. Actual volumes for the period April 1, 2021 to June 30, 2021 averaged approximately 4% greater than forecast due to colder weather in the same period. As a result of the actual volumes being greater than the forecasted volumes, the Company recovered \$26.186 million, which is \$1.990 million more than the balance approved for disposition. Please see Exhibit E, Tab 1, Schedule 5, page 2, column (g) for the actual disposition of deferral accounts and column (h) of the same exhibit for the variance between forecast and actual disposition.

¹ EB-2020-0067.

² EB-2020-0134.

³ EB-2019-0247.

1.2 Union Rate Zones 2019 Earnings Sharing and Deferrals Disposition
(EB-2020-0134)

9. In its EB-2020-0134 Decision, the OEB approved the prospective disposition of the balances in the approved deferral accounts to rate classes through a temporary rate adjustment from October 1, 2021 to December 31, 2021. The total amount approved for prospective refund to rate classes was a \$14.096 million credit. Please see Exhibit E, Tab 1, Schedule 5, page 3, column (e), for the forecast amount to be refunded by rate class, based on the forecasted volumes as noted in column (a) of the same exhibit.

10. Actual volumes for the period October 1, 2021 to December 31, 2021 averaged approximately 19% lower than forecast primarily due to warmer weather in the same period. As a result of the actual volumes being lower than the forecasted volumes, the Company refunded \$12.115 million, which is \$1.982 million less than the balance approved for disposition. Please see Exhibit E, Tab 1, Schedule 5, page 3, column (f) for the actual disposition amounts by rate class, based on the actual volumes as shown in column (b). Column (g) of the same exhibit shows the variance between forecast and actual disposition.

1.3 Union Rate Zones 2020 Federal Carbon Pricing Program (EB-2019-0247)

5. A \$0.291 million credit balance pertains to over-collection from ratepayers related to the 2019 FCPP deferral and variance account disposition within the 2020 FCPP proceeding. In its EB-2019-0247 Decision, the OEB approved the prospective disposition of the balances in the 2019 FCPP deferral accounts to rate classes through a temporary rate adjustment from October 1, 2020 to December 31, 2020.

6. Following the OEB's approval of 2019 balances, contract customers were subsequently exempted from the customer-related federal carbon levy. Enbridge Gas had already received approval to collect amounts from Union rate zones

customers related to the exempted customers, therefore, the over-collection from customers requires a disposition to ratepayers.

2. One-time Adjustment Account Disposition

11. The 2019 DSM Deferrals Disposition was the first time Enbridge Gas used a common disposition methodology across the EGD and Union rate zones. The Rate Order of that proceeding reflects a one-time billing adjustment for all Enbridge Gas customers.

2.1 Union Rate Zones 2019 DSM Deferrals (EB-2021-0072)

12. A \$1.122 million debit balance represents an under-collection from ratepayers for disposition using one-time-adjustment in the 2019 DSM Deferrals Disposition⁴ proceeding. In July of 2021, the Company received approval to clear the 2019 DSM deferral accounts within the EB-2021-0072 proceeding and dispose of the balance in October 2021. The billing adjustment was derived for each customer individually by applying the disposition unit rates to each customer's actual consumption volume for the period July 1, 2019 to June 30, 2020 for the Union rate zone general service customers.⁵ The outstanding amount is as a result of the billing systems' inability to locate all the intended customers.

⁴ EB-2021-0072.

⁵ Enbridge Gas Draft Rate Order, EB-2021-0072, June 30, 2021.

PARKWAY WEST PROJECT COSTS DEFERRAL ACCOUNT – UNION RATE ZONES

1. In its Parkway West Project (EB-2012-0433) Decision, the OEB approved the establishment of the Parkway West Project Costs Deferral Account to track the differences between the actual revenue requirement related to costs for the Parkway West Project and the revenue requirement included in rates.

2. The balance in this deferral account is a credit to Union rate zones ratepayers of \$0.603 million plus interest of \$0.006 million for a total credit balance of \$0.609 million. The balance of \$0.603 million represents the difference between the revenue requirement of \$19.971 million included in 2021 rates (EB-2020-0095) and the calculation of the actual revenue requirement for 2021 of \$19.368 million as shown in Table 1.

TABLE 1
 2021 PARKWAY WEST PROJECT RATE BASE AND REVENUE REQUIREMENT

Line No.	Particulars (\$000's)	Col. 1 2021 Board- approved (a)	Col. 2 2021 Actuals (b)	Col. 3 Difference (c) = (b - a)
<u>Rate Base Investment</u>				
1.	Capital Expenditures	-	15	15
2.	Cumulative Capital Expenditures	233,147	231,703	(1,444)
3.	Average Investment	199,738	198,371	(1,367)
<u>Revenue Requirement Calculation:</u>				
<u>Operating Expenses:</u>				
4.	Operating and Maintenance Expenses	2,206	1,871	(335)
5.	Depreciation Expense (1)	5,532	5,496	(36)
6.	Property Taxes	579	388	(191)
7.	Total Operating Expenses	8,317	7,755	(562)
8.	Required Return (2)	11,304	11,227	(77)
9.	Total Operating Expense and Return	19,621	18,982	(639)
<u>Income Taxes:</u>				
10.	Income Taxes - Equity Return (3)	2,315	2,299	(16)
11.	Income Taxes - Utility Timing Differences (4)	(1,966)	(1,914)	52
12.	Total Income Taxes	350	385	35
13.	Total Revenue Requirement	19,971	19,368	(603)

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) The required return assumes a capital structure of 64% long-term debt at 3.82% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2021 required return calculation is as follows:
 $\$198.326 \text{ million} * 64% * 3.82% = \$4.849 \text{ million plus}$
 $\$198.326 \text{ million} * 36% * 8.93% = \$6.376 \text{ million for a total of } \11.225 million.
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

1. Capital Expenditures

3. The actual 2021 capital expenditures on in-service assets are \$0.015 million higher than 2021 OEB-approved as shown in Table 2.

TABLE 2
 PARKWAY WEST CAPITAL EXPENDITURES

Line No.	Particulars (\$000's)	2021 Board-approved (a)	2021 Actuals (b)	Difference (c) = (b - a)
1.	Plant Infrastructure	-	15	15
2.	Compressor Equipment	-	-	-
3.	Total Capital Expenditures	-	15	15

4. Plant infrastructure costs were \$0.015 million higher than costs included in 2021 OEB-approved rates due to consulting fees regarding the heritage homes discussed in the Company's 2019 Earnings Sharing and Deferrals Disposition interrogatory response to OEB staff¹. Enbridge Gas plans to mothball the heritage homes in 2022.

2. Average Investment

5. The average investment decrease of \$1.367 million from OEB-approved is due to the cumulative capital expenditures being \$1.444 million lower than OEB-approved.

3. Operating Expenses

6. Operating and maintenance expenses were \$0.335 million below the costs included in the 2021 OEB-approved rates. The decrease is a result of a Long-term Service Agreement (LTSA) that was included in 2021 OEB-approved rates but not incurred in actual O&M expense. The Company elected not to enter an LTSA, that would

¹ EB-2020-0134, EGI 2019 Earnings Sharing and Deferrals Disposition, Exhibit I.STAFF.25, a).

have provided loss of critical unit coverage should the Company experience operational issues with Parkway B, as with the commissioning of Parkway D it was determined that it provided the required backup.

7. Property taxes were \$0.191 million lower than costs included in 2021 OEB-approved rates. The decrease is a result of the Municipal Property Assessment Corporation (MPAC) deciding not to apply a Land Classification tax charge that was expected for 2019 and onwards.

BRANTFORD KIRKWALL/PARKWAY D PROJECT COSTSUNION RATE ZONES

1. In its Brantford-Kirkwall/Parkway D (EB-2013-0074) Decision, the OEB approved the establishment of the Brantford-Kirkwall/Parkway D Project Costs Deferral Account to track the differences between the actual revenue requirement related to costs for the Brantford-Kirkwall/Parkway D Project and the revenue requirement included in rates.

2. The balance in this deferral account is a credit to Union rate zone ratepayers of \$0.045 million plus interest of \$0.003 million for a total credit balance of \$0.045 million. The balance of \$0.045 million represents the difference between the revenue requirement of \$15.329 million included in 2021 rates (EB-2020-0095) and the calculation of the actual revenue requirement for 2021 of \$15.284 million as shown in Table 1. The small decline in the actual revenue requirement results from minor underages in the capital cost and municipal taxes of the project.

TABLE 1
2021 BRANTFORD-KIRKWALL PIPELINE/PARKWAY D PROJECT RATE BASE AND REVENUE REQUIREMENT

Line No.	Particulars (\$000's)	Col. 1 2021 Board-approved (a)	Col. 2 2021 Actuals (b)	Col. 3 Difference (c) = (b - a)
<u>Rate Base Investment</u>				
1.	Capital Expenditures	-	-	-
2.	Cumulative Capital Expenditures	197,404	197,378	(26)
3.	Average Investment	167,709	167,680	(29)
<u>Revenue Requirement Calculation:</u>				
<u>Operating Expenses:</u>				
4.	Operating and Maintenance Expenses	-	-	-
5.	Depreciation Expense (1)	4,995	4,995	-
6.	Property Taxes	995	952	(43)
7.	Total Operating Expenses	5,990	5,947	(43)
8.	Required Return (2)	9,492	9,490	(2)
9.	Total Operating Expense and Return	15,482	15,437	(45)
<u>Income Taxes:</u>				
10.	Income Taxes - Equity Return (3)	1,944	1,944	-
11.	Income Taxes - Utility Timing Differences (4)	(2,097)	(2,097)	-
12.	Total Income Taxes	(153)	(153)	-
13.	Total Revenue Requirement	15,329	15,284	(45)

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) The required return assumes a capital structure of 64% long-term debt at 3.82% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2021 required return calculation is as follows:
 $\$167.680 \text{ million} * 64\% * 3.82\% = \4.099 million plus
 $\$167.680 \text{ million} * 36\% * 8.93\% = \5.39 million for a total of \$9.490 million.
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

UNACCOUNTED FOR GAS VOLUME DEFERRAL ACCOUNT
UNION RATE ZONES

1. The purpose of the Unaccounted for Gas (UFG) Volume Deferral Account is to capture the difference between the unit cost of UFG recovered in the rates approved by the OEB and actual UFG costs incurred. The amount of the UFG volume deferral account to be cleared to customers is subject to a symmetrical dead-band of \$5.0 million, with amounts within such dead-band being to Enbridge Gas's account.

2. Union rate zones' 2021 Board Approved rates included \$10.1 million in UFG costs. Based on 2021 actual volumes, Enbridge Gas recovered \$10.4 million in UFG costs for 2021. In comparison, Enbridge Gas's actual 2021 UFG costs were \$35.9 million. The difference of \$25.5 million is above the \$5.0 million threshold established by the OEB for the UFG Volume Variance Account. As a result, there is a debit balance of \$20.5 million in the UFG Volume Deferral Account, plus interest of \$0.2 million for a total debit balance of \$20.7 million. See Table 1 below.

Table 1
2021 UTILITY UFG VARIANCES FROM BOARD-APPROVED

Line No.	Particulars	Variance (\$Millions)
1	UFG Cost Included in Rates	\$ 10.1
2	Net Recovery Variance	\$ 0.3
3	Total UFG Collected in 2021 Rates (line 1 + line 2)	\$ 10.4
4	Total Utility UFG Actual Cost	\$ 35.9
5	Total Utility UFG Variance (line 3 - line 4)	-\$ 25.5
6	\$5M UFG Symmetrical Dead-band	\$ 5.0
7	UFG Volume Deferral (receivable)	-\$ 20.5

(1) Board Approved throughput was 32,010 10⁶m³ versus actual throughput of 37,612 10⁶m³

(2) Board Approved UFG % is 0.219% versus actual UFG % of 0.672% for 2021.

- The methodology for determining the actual UFG expense of \$35.9 million in 2021 is consistent with the methodology historically used to calculate actual UFG for the audited Financial Statements, utility rate setting and earnings calculation.
- Table 2 and Table 3 provide historical UFG volumes and percentage of throughput for the Union rate zone from 2001 to 2021.

Table 2: Historical UFG Percentage of Throughput for the Union Rate Zone

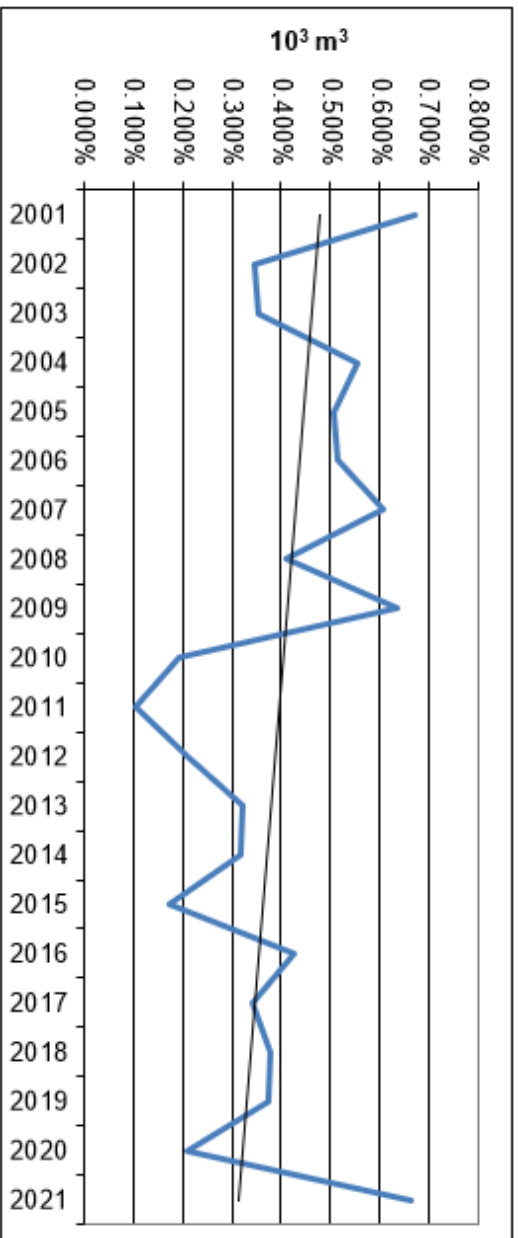


Table 3

<i>Col.1</i>	<i>Col.2</i>	<i>Col.3</i>
Calendar Year	UFG Volumes (10³ m³)	UFG %
2001	184,102	0.673%
2002	109,542	0.344%
2003	108,819	0.356%
2004	176,650	0.554%
2005	169,540	0.507%
2006	154,015	0.516%
2007	203,713	0.609%
2008	143,880	0.411%
2009	201,845	0.637%
2010	67,283	0.192%
2011	35,668	0.105%
2012	68,690	0.210%
2013	113,997	0.320%
2014	97,109	0.318%
2015	54,408	0.174%
2016	131,588	0.427%
2017	108,901	0.342%
2018	136,447	0.379%
2019	137,652	0.376%
2020	74,120	0.208%
2021	252,582	0.672%

5. The 0.219% UFG percentage used in approved rates was determined in EB-2011-0210 using the weighted average of the previous three years actual UFG. At the time 2013 rates were set, the most recent three years actual UFG available was 2009 to 2011. The Board approved methodology uses a 3:2:1 weighting with the most recent year weighted most heavily. The result was a ratio for UFG in rates influenced heavily by 2011's favourable ratio. Concern over the ability to manage UFG relative to the new ratio was a factor in the establishment of a deferral account to capture variances, as was approved in EB-2013-0202.

6. Since the 2013 Board Approved percentage was determined, the average UFG percentage has been 0.356%, for the years of 2013 through 2021. Within that period of 2013 through 2021, the UFG % in 2015 was notably lower than the average, with a corresponding increase in 2016. Similarly, the UFG % in 2020 was lower than the average, with an increase in the UFG % observed in 2021.
7. As was noted in EB-2017-0091 Exhibit B.Staff.9, the increase in UFG volumes experienced in 2016 was primarily driven by a decrease in delivery volumes recorded in January 2016 relating to true-up of estimated consumption recorded in December 2015.
8. A similar decrease and offsetting increase in UFG volumes has been observed between the 2020 and 2021 calendar years. The average UFG % for 2020 and 2021 is 0.440%, which is approximately $163.5 \text{ } 10^3\text{m}^3/\text{year}$ average for the two years. The Company has identified that the true-up of estimated consumption based on the calendarization of UFG volumes has contributed to volatility between 2020 and 2021, but has not resulted in a material increase to the historical average of UFG over the course of two years. Typical estimation true-ups are outlined below.
9. At the end of each reporting period, Enbridge Gas records an estimate of gas delivered but not yet billed. The true-up between the December 2020 estimate and the actual billed volumes resulted in a decrease to the delivery volumes recorded in January 2021. This true-up reflects that, when billings related to December 2020 were completed over the following month, it was determined there was an over-estimate of gas deliveries for December 2020.
10. A second common estimation true-up is known as a prior period adjustment (PPA). PPAs are processed when there is a variance between a billed estimate and actual volumes. The inclusion of PPAs within the annual reported consumption volumes is

consistent with the methodology historically used to calculate actual UFG for the audited Financial Statements, utility rate setting and earnings sharing calculation.

11. The UFG volumes in 2020 were abnormally low compared to the historical average.

The estimation true-up recorded in 2021 caused UFG volumes in 2021 to be elevated. As mentioned, the average of 2020 and 2021 is in line with the historical average of UFG volumes from 2013 to 2021.

12. Enbridge evaluated other factors that could have impacted UFG including, investigating meter reads between custody and check meters for inconsistencies, reviewing accounting processes associated with recording company use and line-pack changes, assessing impacts arising from the transition of Union rate zone customers to the SAP customer information system, and reviewing storage inventory adjustments. These items were deemed to have minimal impact on the elevated level of UFG in 2021. Enbridge is continuing to monitor and address potential contributors to UFG.

13. Volatility in UFG is not uncommon and is experienced across the gas utility industry. The 2019 UFG report prepared by ScottMadden filed in the 2020 Rates Application (EB-2019-0194) noted that:

“....legacy Union and legacy EGD have year-to-year fluctuations in UFG levels that are generally consistent with those of other gas utilities. The fluctuations are a result of many factors, including weather, estimation variation, measurement variation, and billing and accounting adjustments.all gas distribution pipeline systems have UFG as an element of operating a natural gas distribution system and that because of the numerous factors that impact UFG, the UFG percentage will fluctuate over time.¹”

¹ EB-2019-0194, UFG Progress Report, page 4.

14. Enbridge Gas filed the 2019 UFG Study as part of the 2020 rate application (EB-2019-0194). The report found that the primary sources of UFG include physical losses (eg. leaks, third-party damage and venting), metering variations, non-registering meters, theft, line pack and billing and accounting adjustments (such as the estimate of gas delivered but not yet billed required at the end of each reporting period to report results). Although the root causes of UFG are generally known as described above, it continues to be difficult to quantify the individual factors due to their nature. Certain sources of UFG, such as leaks and emissions, contribute to baseline UFG while other sources such as billing, and accounting adjustments contribute to UFG volatility.

15. As committed by the Company in 2020 Rates application (EB 2019-0194), Enbridge Gas will file an update in the 2024 rebasing application about the implementation of the UFG report recommendations and other activities to address UFG, and the impacts of such activities.

UNACCOUNTED FOR GAS (UFG) PRICE VARIANCE ACCOUNT
UNION RATE ZONES

1. The UFG Price Variance Account captures the variance between the average monthly price of the Company's purchases for the Union rate zones and the applicable OEB-approved reference price, applied to the Company's actual UFG volumes for the Union rate zones. During 2021, the Company purchased 63,961 10^3m^3 of gas supply in Union rate zones related to actual UFG volumes on behalf of ratepayers. The actual UFG purchases exclude the actual UFG collected from ratepayers who provide UFG in kind as part of customer supplied fuel (CSF).

2. The average actual cost of the UFG purchases in 2021 is $\$52.52/10^3\text{m}^3$ higher than the OEB-approved reference prices included in rates based on the Union South rate zone gas portfolio cost of $\$141.35/10^3\text{m}^3$. The result is a $\$3.36$ million balance to be collected from ratepayers, as shown in Table 1 below. Table 2 provides the detailed calculation supporting the price variance of $\$52.52/10^3\text{m}^3$.

Table 1
Calculation of 2021 UFG Price Variance

Line No.		UFG Volumes (10 ³ m ³)
1	Experienced UFG ⁽¹⁾	270,030
2	UFG Collected through CSF	206,069
3	UFG Volumes – Company Supplied ⁽²⁾	<u>63,961</u>
		<u>Deferral Calculation</u>
4	UFG Volumes (10 ³ m ³) – Company Supplied ⁽²⁾	63,961
5	Price Variance (\$/10 ³ m ³) ⁽³⁾	<u>\$52.52</u>
6	Variance Account Balance (\$ millions)	<u>\$3.36</u>

(1) Converted using the following heat values (39.28 Jan-Mar) (39.32 Apr – Dec).

(2) UFG Volumes represent gas supply related to actual UFG volumes on behalf of ratepayers who do not provide UFG in kind as part of CSF.

(3) See Table 2 for the price variance calculation. This represents weighted average actual cost relative to OEB-approved reference prices.

Table 2
 Calculation of 2021 Union South Price Variance

Line No.	Union South Rate Zone	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average Price
1.0	Board Approved Reference Price (\$ / 10 ³ m ³)	\$ 131.43	\$ 131.43	\$ 131.43	\$ 135.62	\$ 135.62	\$ 135.62	\$ 129.13	\$ 129.13	\$ 129.13	\$ 169.23	\$ 169.23	\$ 169.23	\$ 141.35
2.0	Actual Purchase (\$)	\$42,507,900	\$45,125,048	\$43,018,711	\$32,580,518	\$38,260,250	\$36,250,196	\$51,360,970	\$55,362,122	\$58,149,557	\$60,445,476	\$92,591,845	\$92,645,865	
3.0	Purchase Volumes (10 ³ m ³)	325,958	294,013	281,053	249,025	268,780	268,626	286,082	274,130	267,494	208,408	307,429	318,118	
4.0	Average Purchase Cost (Union South) (\$ / 10 ³ m ³)	\$ 130.41	\$ 153.48	\$ 153.06	\$ 130.83	\$ 142.35	\$ 134.95	\$ 179.53	\$ 201.96	\$ 217.39	\$ 290.03	\$ 301.18	\$ 291.23	\$ 193.87
5.0	Union South Price Variance (\$ / 10 ³ m ³) ⁽¹⁾	\$ 1.02	\$ (22.05)	\$ (21.63)	\$ 4.78	\$ (6.73)	\$ 0.67	\$ (50.41)	\$ (72.83)	\$ (88.26)	\$ (120.80)	\$ (131.95)	\$ (122.00)	\$ (52.52)

Notes
 (1) Line 1 - Line 4

LOBO C COMPRESSOR/HAMILTON MILTON PIPELINE PROJECT COSTS
DEFERRAL ACCOUNT – UNION RATE ZONES

1. In its Dawn Parkway 2016 Expansion (EB-2014-0261) Decision, the OEB approved the establishment of the Lobo C Compressor/Hamilton-Milton Pipeline Project Costs Deferral Account to track the differences between the actual revenue requirement related to costs for the Project and the revenue requirement included in rates.

2. The balance in this deferral account is a debit from Union Rate Zone ratepayers of \$0.024 million plus interest of \$0.0003 million for a total debit balance of \$0.024 million. The balance of \$0.024 million represents the difference between the revenue requirement of \$26.025 million included in 2021 rates (EB-2020-0095) and the calculation of the actual revenue requirement for 2021 of \$26.049 million as shown in Table 1.

TABLE 1
2021 LOBO C COMPRESSOR/HAMILTON-MILTON PIPELINE PROJECT RATE BASE AND REVENUE REQUIREMENT

Line No.	Particulars (\$000's)	Col. 1 2021 Board- approved (a)	Col. 2 2021 Actuals (b)	Col. 3 Difference (c) = (b - a)
	<u>Rate Base Investment</u>			
1.	Capital Expenditures	-	-	-
2.	Cumulative Capital Expenditures	347,980	347,062	(918)
3.	Average Investment	306,868	306,005	(863)
	<u>Revenue Requirement Calculation:</u>			
	<u>Operating Expenses:</u>			
4.	Operating and Maintenance Expenses	863	1,104	241
5.	Depreciation Expense (1)	8,261	8,214	(47)
6.	Property Taxes	1,210	1,056	(154)
7.	Total Operating Expenses	10,334	10,374	40
8.	Required Return (2)	16,464	16,417	(47)
9.	Total Operating Expense and Return	26,798	26,791	(7)
	<u>Income Taxes:</u>			
10.	Income Taxes - Equity Return (3)	3,562	3,547	(15)
11.	Income Taxes - Utility Timing Differences (4)	(4,335)	(4,289)	46
12.	Total Income Taxes	(773)	(742)	31
13.	Total Revenue Requirement	26,025	26,049	24

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) The required return assumes a capital structure of 64% long-term debt at 3.36% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2021 required return calculation is as follows:
 $\$306.868 \text{ million} * 64\% * 3.36\% = \$6.599 \text{ million plus}$
 $\$306.868 \text{ million} * 36\% * 8.93\% = \$9.865 \text{ million for a total of } \$16,464 \text{ million.}$
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

1. Average Investment

3. The average investment decrease of \$0.863 million from OEB-approved is due to the cumulative capital expenditures being \$0.918 million lower than OEB-approved capital expenditures.

2. Operating Expenses

4. Operating and maintenance expenses were \$0.241 million higher than the costs included in 2021 OEB-approved rates. The increase is a result of higher salaries/wages related to overtime costs not included in the original budget and pertain to the annual operations and general maintenance of the equipment and assets.

3. Property Tax

5. Property taxes were \$0.154 million lower than costs included in 2021 OEB-approved rates. The decrease is a result of Provincial tax reductions for business education tax rates on commercial, industrial, and pipeline tax in 2021.

LOBO D/BRIGHT C/DAWN H COMPRESSOR PROJECT COSTS
UNION RATE ZONES

1. In its EB-2015-0116 Decision, the OEB approved the establishment of the Lobo D/Bright C/Dawn H Compressor Project Costs Deferral Account to track the differences between the actual revenue requirement related to costs for the Lobo D/Bright C/Dawn H Compressor Project and the revenue requirement included in rates.
2. The balance in this deferral account is a credit to Union Rate Zone ratepayers of \$0.112 million plus interest of \$0.004 million, for a total credit balance of \$0.116 million. The balance of \$0.116 million includes a debit of \$1.225 million which represents the difference between the revenue requirement of \$45.154 million included in 2021 rates (EB-2020-0095) and the calculation of the actual revenue requirement for 2021 of \$46.379 million as shown in Table 1.
3. A \$1.337 million credit relates to the 2021 revenue generated from the sale of surplus Dawn Parkway system capacity of 30,393 GJ/day associated with the Lobo D/Bright C/Dawn H Compressor Project. In accordance with the 2018 Disposition of Deferral and Variance Account Balances and Utility Earnings proceeding (EB-2019-0105) approved Settlement Proposal, the surplus capacity is deemed to be sold long-term and the revenue credit for the 2021 year is calculated based on the M12 Dawn-Parkway rate of \$3.665/GJ approved in the EB-2020-0181 Rate Order, dated May 18, 2021. A schedule supporting the 2021 revenue calculation is provided at Exhibit E, Tab 1, Schedule 7.

TABLE 1

2021 DAWN H/LOBO D/BRIGHT C COMPRESSOR PROJECT RATE BASE AND REVENUE REQUIREMENT

Line No.	Particulars (\$000's)	Col. 1	Col. 2	Col. 3
		2021 Board-approved (a)	2021 Actuals (b)	Difference (c) = (b - a)
<u>Rate Base Investment</u>				
1.	Capital Expenditures	-	-	-
2.	Cumulative Capital Expenditures	622,500	620,050	(2,450)
3.	Average Investment	552,367	551,923	(444)
<u>Revenue Requirement Calculation:</u>				
<u>Operating Expenses:</u>				
4.	Operating and Maintenance Expenses	1,761	2,675	914
5.	Depreciation Expense (1)	17,418	17,437	19
6.	Property Taxes	1,089	1,031	(58)
7.	Total Operating Expenses	20,268	21,143	875
8.	Required Return (2)	29,388	29,364	(24)
9.	Total Operating Expense and Return	49,656	50,507	851
<u>Income Taxes:</u>				
10.	Income Taxes - Equity Return (3)	6,402	6,397	(5)
11.	Income Taxes - Utility Timing Differences (4)	(10,905)	(10,526)	379
12.	Total Income Taxes	(4,503)	(4,129)	374
13.	Total Revenue Requirement	45,154	46,379	1,225

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) The required return assumes a capital structure of 64% long-term debt at 3.29% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2021 required return calculation is as follows:
 $\$552.367 \text{ million} \times 64\% \times 3.29\% = \$11.631 \text{ million plus}$
 $\$552.367 \text{ million} \times 36\% \times 8.93\% = \$17.757 \text{ million for a total of } \29.388 million.
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

1. Average Investment

4. The average investment decrease of \$0.444 million from OEB-approved is due to the cumulative capital expenditures being \$2.450 million lower than OEB-approved.

2. Operating Expenses

5. Operating and maintenance expenses were \$0.914 million higher than the costs included in 2021 OEB-approved rates. The increase is a result of higher salaries/wages as the budget did not account for overtime costs, higher general maintenance costs than budgeted, and higher utility costs than budgeted. Salary/wages costs were not capitalized or captured in contingency costs as they were incurred for the annual operations and general maintenance of the equipment and assets. Table 2 shows the breakdown and comparison of actual 2021 operating and maintenance costs versus OEB-approved.

TABLE 2
 2021 DAWN H/LOBO D/BRIGHT C COMPRESSOR OPERATING AND MAINTENANCE EXPENSES

Line No.	Particulars (\$Millions)	Col. 1	Col. 2	Col. 3
		2021 Board-approved (a)	2021 Actuals (b)	Difference (c) = (b - a)
1.	Salaries & Wages	870	1,285	415
2.	HR Costs	392	576	184
3.	Fleet Costs	131	193	62
4.	Training, Travel and PE	67	12	(55)
5.	Other O&M (Contract Services)	165	307	142
6.	Company Used Fuel	73	-	(73)
7.	Utility Costs	63	302	239
8.	Total Capital Expenditures	1,761	2,675	914

3. Income Taxes

6. The \$0.379 million decrease in "Income Taxes – Utility Timing Difference" credit relates to a lower Capital Cost Allowance (CCA) deduction due to the lower average investment in 2021, versus OEB-approved, as well as lower CCA available on additions that were previously qualified for Bill C-97 accelerated CCA.

BURLINGTON OAKVILLE PROJECT COSTS DEFERRAL ACCOUNT

UNION RATE ZONES

1. In its EB-2015-0116 Decision, the OEB approved the establishment of the Burlington Oakville Project Costs Deferral Account to track the differences between the actual revenue requirement related to costs for the Project and the revenue requirement included in rates.

2. The balance in this deferral account is a credit to Union rate zone ratepayers of \$0.051 million plus interest of \$0.0004 million for a total credit balance of \$0.051 million. The balance of \$0.051 million represents the difference between the revenue requirement of \$5.707 million included in 2021 rates (EB-2020-0095) and the calculation of the actual revenue requirement for 2021 of \$5.656 million as shown in Table 1. The small decline in the actual revenue requirement results from minor underages in the capital cost and operating costs of the project.

TABLE 1
 2021 BURLINGTON OAKVILLE PIPELINE PROJECT RATE BASE AND REVENUE REQUIREMENT

Line No.	Particulars (\$000's)	Col. 1 2021 Board- approved (a)	Col. 2 2021 Actuals (b)	Col. 3 Difference (c) = (b - a)
<u>Rate Base Investment</u>				
1.	Capital Expenditures	-	-	-
2.	Cumulative Capital Expenditures	83,349	83,262	(87)
3.	Average Investment	74,814	74,725	(89)
<u>Revenue Requirement Calculation:</u>				
<u>Operating Expenses:</u>				
4.	Operating and Maintenance Expenses	17	-	(17)
5.	Depreciation Expense (1)	1,732	1,737	5
6.	Property Taxes	134	116	(18)
7.	Total Operating Expenses	1,883	1,853	(30)
8.	Required Return (2)	4,014	4,009	(5)
9.	Total Operating Expense and Return	5,897	5,862	(35)
<u>Income Taxes:</u>				
10.	Income Taxes - Equity Return (3)	868	866	(2)
11.	Income Taxes - Utility Timing Differences (4)	(1,058)	(1,072)	(14)
12.	Total Income Taxes	(190)	(206)	(16)
13.	Total Revenue Requirement	5,707	5,656	(51)

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) The required return assumes a capital structure of 64% long-term debt at 3.36% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2021 required return calculation is as follows:
 $\$74.814 \text{ million} * 64% * 3.36% = \1.609 million plus
 $\$74.814 \text{ million} * 36% * 8.93% = \2.405 million for a total of \$4.014 million.
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

2021 ONTARIO ENERGY BOARD COST ASSESSMENT VARIANCE ACCOUNT
UNION RATE ZONES

1. The purpose of the 2021 Ontario Energy Board Cost Assessment Variance Account (OEBCAVA) was to record any variances between the OEB costs assessed to Enbridge Gas (relevant to the Union rate zones) through application of the revised Cost Assessment Model (CAM), which became effective April 1, 2016, and the OEB costs which were included in Union rate zones rates, which were determined through application of the prior CAM. The scope of the account is consistent with prior OEBCAVAs. However, in accordance with the EB-2020-0134 OEB-approved Settlement Proposal, in Enbridge Gas's 2019 Earnings Sharing and Deferral Disposition proceeding, the base OEB costs assumed to be included in rates have been escalated to the reflect the growth in the amount recovered through rates, which results from annual price cap adjustments and customer growth. The OEBCAVA was originally approved for establishment by OEB letter dated February 9, 2016, entitled: *Revisions to the Ontario Energy Board Cost Assessment Model*.
2. The amount recorded within the 2021 OEBCAVA is a \$0.907 million debit plus interest of \$0.011 million for a total debit balance of \$0.919 million. This amount reflects the variance between OEB costs assessed to Enbridge Gas (relevant to Union rate zones) in each quarter of fiscal 2021, utilizing the revised CAM, and Union's average quarterly OEB cost assessment under the prior CAM, escalated in accordance with the EB-2020-0134 OEB-approved Settlement Proposal.
3. In order to calculate the amount to be recovered through the 2021 Union rate zones OEBCAVA, the Company first needed to apportion the actual 2021 OEB assessed costs between the legacy rate zones. Commencing with the OEB's 2019/2020 fiscal

first quarter assessment (for the period April 1, 2019 through June 30, 2019), and continuing since, EGI has been receiving one consolidated quarterly bill for the amalgamated utility. To apportion the quarterly assessments received in 2021 between rate zones, the assessments were prorated based on the total invoices received by each legacy utility for the OEB's 2018/2019 fiscal year (for the period April 1, 2018 through March 31, 2019), the final year for which the OEB issued invoices to each legacy utility. Table 1 below shows the proration of the OEB's 2018/2019 fiscal year assessments between each legacy utility/rate zone (59.76% EGD rate zone, 40.24% Union rate zones). Table 2 shows the apportionment of EGI's 2021 assessed costs to the Union rate zones, and the calculation of the amount recorded in the 2021 Union rate zones OEBCAVA.

4. To calculate the amount for recovery through the 2021 Union rate zones OEBCAVA, the Company also needed to establish the base comparator, reflecting the OEB costs included in Union rate zones rates, determined through application of the prior Cost Assessment Model. In accordance with the EB-2020-0134 OEB approved Settlement Proposal, the amount reflected in rates is also to be increased, or escalated, to reflect the growth in the amount recovered as a result of annual price cap adjustments and customer growth. To establish the 2021 base comparator, the Company escalated the 2020 quarterly comparator of \$0.718 million by the sum of the 2021 Price Cap Index (PCI) of 1.70%, and the Union rate zones ICM threshold calculation Growth Factor (g) of 1.46%, which were approved as part of EGI's 2021 Rate Application, EB-2020-0181. The escalation resulted in a 2021 quarterly comparator of \$0.741 million ($\$0.718 \text{ million} * (1 + (1.70\% + 1.46\%))$). As noted above, Table 2 below shows the apportionment of EGI's actual 2021 assessed costs to the Union rate zones, and the calculation of the amount recorded in the 2021 Union rate zones OEBCAVA utilizing a base comparator of \$0.741 million.

5. Within this proceeding, the Company is requesting clearance of the principal and interest balances recorded in the 2021 OEBCAVA, in the amount of \$0.907 million and \$0.011 million respectively, as shown in Exhibit C, Tab 1, Schedule 1.

Table 1

OEB 2018/2019 Cost Assessments

	<u>EGD</u>	<u>UGL</u>	<u>Total</u>
Apr. 1 to Jun. 30, 2018	1,467,963.00	988,479.00	2,456,442.00
Jul. 1 to Sep. 30, 2018	1,356,860.00	913,873.00	2,270,733.00
Oct. 1 to Dec. 31, 2018	1,356,860.00	913,873.00	2,270,733.00
Jan. 1 to Mar. 31, 2019	1,356,860.00	913,873.00	2,270,733.00
	<u>5,538,543.00</u>	<u>3,730,098.00</u>	<u>9,268,641.00</u>
Percentage of Total	59.76%	40.24%	100.00%

Table 2

Calculation of 2021 UGL RZ OEBCAVA

<u>Period</u>	<u>EGI Assessment</u>	<u>UGL Rate Zones Share (40.24%)</u>	<u>Average cost assessment Comparator</u>	<u>Variance to UGL Rate Zone OEBCAVA</u>
Jan. 1 to Mar. 31, 2021	2,497,219.00	1,004,987.85	741,052.94	263,934.91
Apr. 1 to Jun. 30, 2021	2,364,191.00	951,451.69	741,052.94	210,398.75
Jul 1 to Sep. 30, 2021	2,379,076.00	957,442.05	741,052.94	216,389.11
Oct. 1 to Dec. 31, 2021	2,379,076.00	957,442.05	741,052.94	216,389.11
				<u>907,111.89</u>

2021 BASE SERVICE NORTH T-SERVICE TRANSCANADA CAPACITY DEFERRAL
ACCOUNT – UNION RATE ZONE

1. In the EB-2015-0181 decision, the OEB approved a new optional Union North T-service Transportation from Dawn to allow T-service customers in the Union North East Zone with access to Dawn-based supply. To facilitate this service, Enbridge Gas was required to contract for 15-year transportation capacity with TransCanada from Parkway to the Union CDA, Union NCDA and Union EDA. The approved rates for the service are equal to the EGI C1 rate from Dawn to Parkway and the TransCanada Firm Transportation (FT) toll to Delivery Area.
2. The purpose of the North T-service TransCanada Capacity Deferral Account is to record the difference between the costs for the capacity from Parkway to the northern Delivery Area as part of the Base Service offering of the North T-Service Transportation from Dawn and the demand revenues collected from the North T-Service customers.
3. The total cost Enbridge Gas paid for the contracted TransCanada capacity in 2021 was \$2.172 million or \$180,961.81 per month. On an actual basis, the Company collected \$2.088 million demand revenues from the North T-service customers. As a result, the balance of the 2021 North T-service TransCanada Capacity Deferral Account is a collection from ratepayers of \$0.084 million plus interest of \$0.0001 million and the balance will be cleared amongst all North T-service from Dawn customers. The variance is driven by a net reduction of 313 GJ/day of contracted capacity by North T-service customers.

PANHANDLE REINFORCEMENT PROJECT COSTS DEFERRAL ACCOUNT
UNION RATE ZONES

1. In its Panhandle Reinforcement Project (EB-2016-0186) Decision, the OEB approved the establishment of the Panhandle Reinforcement Project Costs Deferral Account to track the differences between the actual net revenue requirement related to costs for the Project and the net revenue requirement included in rates.

2. The balance in this deferral account is a credit to Union rate zone ratepayers of \$3.162 million plus interest of \$0.021 million for a total credit balance of \$3.183 million. The balance of \$3.162 million represents the difference between the net revenue requirement of \$10.701 million included in 2021 rates (EB-2020-0095) and the calculation of the actual net revenue requirement for 2021 of \$7.539 million as shown in Table 1.

TABLE 1
2021 PANHANDLE REINFORCEMENT PROJECT RATE BASE AND REVENUE REQUIREMENT

Line No.	Particulars (\$000's)	Col. 1 2021 Board-approved (a)	Col. 2 2021 Actuals (b)	Col. 3 Difference (c) = (b - a)
<u>Rate Base Investment</u>				
1.	Capital Expenditures	-	-	-
2.	Cumulative Capital Expenditures	232,844	228,574	(4,270)
3.	Average Investment	213,957	209,844	(4,113)
<u>Revenue Requirement Calculation:</u>				
<u>Operating Expenses:</u>				
4.	Operating and Maintenance Expenses	16	-	(16)
5.	Depreciation Expense (1)	4,944	4,921	(23)
6.	Property Taxes	1,812	1,590	(222)
7.	Total Operating Expenses	6,773	6,511	(262)
8.	Required Return (2)	11,383	11,165	(218)
9.	Total Operating Expense and Return	18,156	17,676	(480)
<u>Income Taxes:</u>				
10.	Income Taxes - Equity Return (3)	2,480	2,432	(48)
11.	Income Taxes - Utility Timing Differences (4)	(3,691)	(3,693)	(2)
12.	Total Income Taxes	(1,211)	(1,261)	(50)
13.	Total Revenue Requirement	16,945	16,415	(530)
14.	Incremental Project Revenue	6,243	8,876	2,633
15.	Net Revenue Requirement	10,701	7,539	(3,162)

Notes:

- (1) Depreciation expense at 2013 Board-approved depreciation rates.
- (2) common equity at the 2013 Board-approved return of 8.93%. The 2021 required return calculation is as follows:
 $\$213.957 \text{ million} * 64\% * 3.29\% = \$4.505 \text{ million plus}$
 $\$213.957 \text{ million} * 36\% * 8.93\% = \$6.878 \text{ million for a total of } \11.383 million.
- (3) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (4) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

1. Average Investment

3. The average investment decrease of \$4.113 million from OEB-approved is due to the cumulative capital expenditures being \$4.270 million lower than OEB-approved.

2. Property Tax

4. Property taxes were \$0.222 million lower than costs included in 2021 OEB-approved rates. The decrease is a result of Provincial tax reductions for business education tax rates on commercial, industrial, and pipeline tax in 2021.

3. Required Return

5. The decrease in the required return of \$0.218 million is the result of a decrease in the average rate base.

4. Incremental Project Revenue

6. The actual incremental revenue of \$8.876 million reflects the continued addition of new customers and expansion by existing customers in the Panhandle market, primarily in the greenhouse sector and is \$2.633 million higher than the forecast incremental revenue included in 2021 Rates.

2021 PENSION AND OPEB FORECAST ACCRUAL VS ACTUAL CASH PAYMENT
DIFFERENTIAL VARIANCE ACCOUNT – UNION RATE ZONES

1. In its EB-2015-0040 report to all regulated entities, dated September 14, 2017, titled “*Regulatory Treatment of Pension and Other Post-employment Benefits (OPEB) Costs*”, the OEB ordered the establishment of the deferral account, effective January 1, 2018, to be used by utilities that are approved to recover their pension and OPEB costs on an accrual basis¹. The Company recovers its pension and OPEB costs on an accrual basis.
2. The purpose of the Pension and OPEB Forecast Accrual vs Actual Cash Payment Differential Variance Account is to track the differences between forecast accrual pension and OPEB amounts recovered in rates, and the actual cash payments made for both pension and OPEB, on a go-forward basis from the date the account was established.
3. In 2021, the accrual pension and OPEB amount recovered in rates for the Union rate zones was \$47.4 million and the actual cash payments made for both pension and OPEB were \$22.6 million, resulting in an annual \$24.8 million credit variance. The variance carried forward from 2020 is a \$50.4 million credit variance, resulting in a cumulative \$75.2 million credit variance through 2021.
4. In accordance with the OEB’s Report (EB-2015-0040), when the cumulative forecasted accrual amount recovered in rates exceeds the cumulative actual cash payments, an asymmetrical carrying charge, to be returned to ratepayers, should be accrued based on the opening monthly difference between amount recovered in

¹ EB-2015-0040, *Regulatory Treatment of Pension and Other Post-employment Benefits (“OPEB”) Costs*, September 14, 2017, page 2.

rates and actual cash payments. The balance in the account for 2021 is an interest credit to ratepayers of \$1.346 million to December 31, 2021². Table 1 sets out the detailed calculation of the forecast accrual versus actual cash payments, and associated interest.

TABLE 1

DETAILS OF 2021 INTEREST CALCULATED ON FORECAST ACCRUALS VS ACTUAL CASH PAYMENTS
 IN PENSION AND OPEB VARIANCE ACCOUNT (NO. 179-157)

Particulars (\$000's)	20-Dec	21-Jan	21-Feb	21-Mar	21-Apr	21-May	21-Jun	21-Jul	21-Aug	21-Sep	21-Oct	21-Nov	21-Dec	Total
Forecast accrual amounts		3,951	3,951	3,951	3,951	3,951	3,951	3,951	3,951	3,951	3,951	3,951	3,951	47,416
Actual cash payments		4,351	506	982	5,796	181	937	3,133	155	997	4,138	43	1,394	22,614
Monthly variance		400	-3,445	-2,970	1,845	-3,770	-3,015	-818	-3,797	-2,954	187	-3,908	-2,557	-24,803
Cumulative variance	-50,367	-49,967	-53,412	-56,382	-54,537	-58,307	-61,322	-62,140	-65,936	-68,891	-68,704	-72,612	-75,169	
OEB prescribed CWIP rate		2.03	2.03	2.03	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	
Asymmetrical interest		-87	-78	-92	-106	-109	-111	-117	-119	-126	-131	-131	-139	-1,346

² Interest is as of December 31, 2021, as interest on this account is calculated on a cumulative account balance basis.

ACCOUNTS WITH A ZERO BALANCE
UNION RATE ZONES

1. The following 2021 accounts for the Union rate zones have no balance, and are therefore not requested for clearance to customers:

- Spot Gas Variance Account
- Unbundled Services Unauthorized Storage Overrun Deferral Account
- Gas Distribution Access Rule (GDAR) Costs Deferral Account
- Conservation Demand Management Deferral Account
- Sudbury Replacement Project Costs Deferral Account
- Parkway Obligation Rate Variance Deferral Account
- Unauthorized Overrun Non-Compliance Account

TRANSPORTATION OPTIMIZATION DEFERRAL ACCOUNT - UNION RATE ZONES

Line No.	Particulars	Col. 1	Col. 2	Col. 3
		2013 Board Approved	2020 Actual Total	2021 Actual Total
		(\$000's)	(\$000's)	(\$000's)
1.	Base Exchange Revenue	(9,118.00)	(4,243.99)	(7,528.52)
2.	FT RAM Exchange Revenue	(5,800.00)		
3.	Total Exchange Revenue	(14,918.00)	(4,243.99)	(7,528.52)
4.	Exchange Revenue Subject to Deferral		(4,243.99)	(7,528.52)
5.	Ratepayer portion - 90%	(13,426.20)	(3,819.59)	(6,775.67)
6.	10% Union Incentive Payment		(424.40)	(752.85)
7.	Less: Gas Supply Optimization Margin in Rates	13,426.00	15,943.18	15,391.98
8.	2021 Deferral Account Balance receivable from Ratepayers		12,123.59	8,616.31

BREAKDOWN OF SHORT TERM STORAGE DEFERRAL ACCOUNT (STSDA) - UNION RATE ZONES

Line No.	Particulars (\$000's)	Col. 1	Col. 2	Col. 3
		Board-Approved 2013	Actual 2020	Actual 2021
Revenue				
1.	C1 Off-Peak Storage	500	1,002	433
2.	Supplemental Balancing Services	2,000	1,016	640
3.	Gas Loans		1	1
4.	LBA		0	0
5.		2,500	2,019	1,075
6.	C1 ST Firm Peak Storage	7,883	2,715	1,536
7.	Total Revenue ⁽¹⁾	10,383	4,735	2,610
Costs				
8.	O&M ⁽²⁾	3,810	782	1,004
9.	UFG ⁽³⁾	316	114	266
10.	Compressor Fuel ⁽⁴⁾	1,201	196	257
11.	Total Costs	5,327	1,091	1,528
12.	Net Revenue (line 7 - 11)	5,056	3,644	1,082
13.	Less Shareholder Portion (10%)	505	364	108
14.	Ratepayer Portion	4,551	3,279	974
15.	Approved in Rates	4,551	4,551	4,551
16.	Deferral balance payable to / (collectable from) ratepayers	(0)	(1,272)	(3,577)

Notes:

(1) Based on short-term storage services provided

(2) Revenue Requirement on 11.3 PJ's of board approved excess in-franchise storage capacity

(3) Based on short-term storage volumes in proportion to total volumes

(4) Based on short-term storage activity in proportion to total actual storage activity

ENBRIDGE GAS INC.
2021 Storage Space & Deliverability

Line No.	Particulars	2021 (1)	
		Storage Space (2) (PJ) (a)	Storage Deliverability (2) (GJ/d) (b)
	<u>Union North Rate Zone</u>		
1	Rate 01	12.2	212,035
2	Rate 10	2.9	60,957
3	Rate 20	2.4	35,273
4	Rate 25	-	-
5	Rate 100	0.1	1,139
6	Total Union North Rate Zone	<u>17.5</u>	<u>309,405</u>
	<u>Union South Rate Zone</u>		
7	Rate M1	40.0	990,924
8	Rate M2	10.6	318,002
9	Rate M4	2.9	174,198
10	Rate M5	0.0	291
11	Rate M7	2.1	67,205
12	Rate M9	0.3	9,448
13	Rate M10	0.0	145
14	Rate T1	1.5	40,947
15	Rate T2	9.3	200,945
16	Rate T3	3.2	70,931
17	Total Union South Rate Zone	<u>70.0</u>	<u>1,873,036</u>
	<u>Ex-Franchise</u>		
18	Excess Utility Storage	3.0 (3)	35,816
19	Rate C1	-	-
20	Rate M12	-	-
21	Rate M13	-	-
22	Rate M16	-	-
23	Total Ex-Franchise	<u>3.0</u>	<u>35,816</u>
24	System Integrity Space	9.5	-
25	Total Union Rate Zone	<u>100.0</u>	<u>2,218,257</u>
	<u>EGD Rate Zone</u>		
26	Rate 1	61.2	1,208,141
27	Rate 6	58.7	962,711
28	Rate 9	-	-
29	Rate 100	-	-
30	Rate 110	2.2	5,076
31	Rate 115	0.5	2,013
32	Rate 125	-	-
33	Rate 135	-	-
34	Rate 145	0.3	-
35	Rate 170	0.8	-
36	Rate 200	2.0	20,355
37	Total EGD Rate Zone	<u>125.8</u>	<u>2,198,296</u>
38	Total Enbridge Gas (line 25 + line 37)	<u>225.8</u>	<u>4,416,553</u>

Notes:

- (1) Allocation to rate classes using OEB-approved cost allocation methodologies.
- (2) Union rate zone storage space based on actual W21/22 usage and storage deliverability based on forecast W21/22 requirements. EGD rate zone storage space and deliverability based on 2021 Gas Supply plan.
- (3) EB-2022-0110, Exhibit E, Tab 1, page 6.

SUMMARY OF NON-UTILITY STORAGE BALANCES - UNION RATE ZONES

<u>Date</u>	<u>Entitlement</u> (PJ)	<u>Balance</u> (PJ)	<u>% Full</u> (%)	<u>Date</u>	<u>Entitlement</u> (PJ)	<u>Balance</u> (PJ)	<u>% Full</u> (%)
1-Oct-21	127.6	118.8	93.1%	1-Nov-21	127.6	121.4	95.1%
2-Oct-21	127.6	119.0	93.2%	2-Nov-21	127.6	121.4	95.2%
3-Oct-21	127.6	118.9	93.2%	3-Nov-21	127.6	121.2	95.0%
4-Oct-21	127.6	118.6	93.0%	4-Nov-21	127.6	121.2	95.0%
5-Oct-21	127.6	118.5	92.9%	5-Nov-21	127.6	121.4	95.2%
6-Oct-21	127.6	118.6	93.0%	6-Nov-21	127.6	121.6	95.3%
7-Oct-21	127.6	118.7	93.0%	7-Nov-21	127.6	121.8	95.4%
8-Oct-21	127.6	118.7	93.0%	8-Nov-21	127.6	121.7	95.4%
9-Oct-21	127.6	118.9	93.2%	9-Nov-21	127.6	122.2	95.8%
10-Oct-21	127.6	119.0	93.3%	10-Nov-21	127.6	122.9	96.3%
11-Oct-21	127.6	119.2	93.4%	11-Nov-21	127.6	123.8	97.0%
12-Oct-21	127.6	119.2	93.4%	12-Nov-21	127.6	124.5	97.6%
13-Oct-21	127.6	119.3	93.5%	13-Nov-21	127.6	125.1	98.1%
14-Oct-21	127.6	119.3	93.5%	14-Nov-21	127.6	125.2	98.1%
15-Oct-21	127.6	119.4	93.6%	15-Nov-21	127.6	125.2	98.1%
16-Oct-21	127.6	119.6	93.8%	16-Nov-21	127.6	125.4	98.3%
17-Oct-21	127.6	119.7	93.9%	17-Nov-21	127.6	125.9	98.7%
18-Oct-21	127.6	119.7	93.9%	18-Nov-21	127.6	126.1	98.9%
19-Oct-21	127.6	119.7	93.8%	19-Nov-21	127.6	125.9	98.7%
20-Oct-21	127.6	119.7	93.9%	20-Nov-21	127.6	125.9	98.7%
21-Oct-21	127.6	119.8	93.9%	21-Nov-21	127.6	125.9	98.7%
22-Oct-21	127.6	119.8	93.9%	22-Nov-21	127.6	125.1	98.1%
23-Oct-21	127.6	119.9	94.0%	23-Nov-21	127.6	124.3	97.4%
24-Oct-21	127.6	120.1	94.1%	24-Nov-21	127.6	124.1	97.3%
25-Oct-21	127.6	120.1	94.1%	25-Nov-21	127.6	124.0	97.2%
26-Oct-21	127.6	120.2	94.2%	26-Nov-21	127.6	123.9	97.1%
27-Oct-21	127.6	120.3	94.3%	27-Nov-21	127.6	123.5	96.8%
28-Oct-21	127.6	120.6	94.5%	28-Nov-21	127.6	122.9	96.3%
29-Oct-21	127.6	120.9	94.8%	29-Nov-21	127.6	122.2	95.8%
30-Oct-21	127.6	121.1	94.9%	30-Nov-21	127.6	121.7	95.4%
31-Oct-21	127.6	121.3	95.1%				

ALLOCATION OF SHORT TERM PEAK STORAGE REVENUES
BETWEEN UTILITY AND NON UTILITY - UNION RATE ZONES

Line No.	Particulars	Utility Storage Space (PJs)	Short Term Peak Storage Sold (PJs)	Revenue from Short Term Peak Storage (\$ millions)
1	Net Revenues from Short Term Peak Storage			1.5
2	Total Short Term Peak Storage Sales		3.0	
3	Storage Space reserved for Utility	100.0		
4	Utility Space Requirement	97.0		
5	Excess Utility Storage Space ⁽¹⁾	<u>3.0</u>		
6	Total Utility Short Term Peak Storage Sales ⁽²⁾		3.0	
7	Total Non Utility Short Term Peak Storage Sales		0.0	
8	Short Term Peak Storage Net Revenues - Utility ⁽³⁾			1.5
9	Short Term Peak Storage Net Revenues - Non Utility ⁽⁴⁾			<u><u>-</u></u>

Notes:

(1) line 3 - line 4

(2) line 2

(3) line 6 /line 2 *line

(4) line 7/ line 2* line 1

DEFERRAL VARIANCE CLEARING ACCOUNT - UNION RATE ZONES
2019 ESM (EB-2020-0134), 2017-2018 DSM (EB-2020-0067)
DISPOSITIONS DISPOSED OF DURING 2021

Line No.	Particulars (\$000)	2021			Total (d) = (a) + (b) + (c)
		2019 ESM Deferral EB-2020-0134 (a)	2017-18 DSM Deferral EB-2020-0067 (b)	Interest (1) (c)	
1.	Prospective Recovery/(Refund) - Delivery	(2,233)	(1,990)	(63)	(4,285)
2.	Prospective Recovery/(Refund) - Gas Supply Transportation	(1,447)		(21)	(1,469)
3.	Prospective Recovery/(Refund) - Gas Supply Commodity	1,698		25	1,723
4.	Sub-Total	(1,982)	(1,990)	(59)	(4,030)
5.	Manual Re-bills and other one-time billing adjustments				20
6.	Grand Total				(4,010)

(1) Interest forecasted to December 31, 2022.

DEFERRAL VARIANCE CLEARING ACCOUNT - UNION RATE ZONES
2017/2018 DSM DEFERRAL DISPOSITION (EB-2020-0067)
DISPOSITION PERIOD - APRIL 1, 2021 TO SEPTEMBER 30, 2021

Line No.	Particulars	Rate Class	2021							
			Forecast Volume (10 ³ m ³) (1)	Actual Volume (10 ³ m ³)	Volume Variance (10 ³ m ³)	2017 DSM Unit Rate for Prospective Recovery/(Refund) (cents/m ³)	2018 DSM Unit Rate for Prospective Recovery/(Refund) (cents/m ³)	Forecast (\$000)	Actual (\$000)	Variance (\$000)
			(a)	(b)	(c)	(d)	(e)	(f) = ((a) * (d)/100) + ((a) * (e)/100)	(g) = ((b) * (d)/100) + ((b) * (e)/100)	(h) = (f) - (g)
<u>General Service for Prospective Recovery(Refund) - Delivery</u>										
1	Small Volume General Service	01	218,218	206,105	12,113	(0.9140)	(0.8186)	(3,781)	(3,571)	(210)
2	Large Volume General Service	10	97,893	82,334	15,559	(0.8698)	(1.3393)	(2,163)	(1,819)	(344)
3	Small Volume General Service	M1	708,032	724,452	(16,420)	2.3352	2.5733	34,754	35,560	(806)
4	Large Volume General Service	M2	373,184	322,222	50,962	(0.5157)	(0.7207)	(4,614)	(3,984)	(630)
5	Total General Service for Prospective Recovery (Refund) - Delivery		<u>1,397,327</u>	<u>1,335,112</u>	<u>62,215</u>			<u>24,196</u>	<u>26,186</u>	<u>(1,990)</u>
6	Total							<u>24,196</u>	<u>26,186</u>	<u>(1,990)</u>

Notes:

(1) Forecast volume for the period April 1, 2021 to September 30, 2021.

DEFERRAL VARIANCE CLEARING ACCOUNT - UNION RATE ZONES
2019 DEFERRAL DISPOSITION (EB-2020-0134)
DISPOSITION PERIOD - OCTOBER 1, 2021 TO DECEMBER 31, 2021

Line No.	Particulars	Rate Class	Forecast Volume (10 ³ m ³) (1)	Actual Volume (10 ³ m ³)	Volume Variance (10 ³ m ³)	2021			
						Forecast (\$000)	Actual (\$000)	Variance (\$000)	Unit Rate for Prospective Recovery/(Refund) (cents/m ³) (2)
			(a)	(b)	(c)	(d)	(e) = (a) * (d)/100	(f) = (b) * (d)/ 100	(g) = (c) - (f)
<u>General Service for Prospective Recovery(Refund) - Delivery</u>									
1	Small Volume General Service	01	321,283	275,592	45,691	(1.0715)	(3,443)	(2,953)	(490)
2	Large Volume General Service	10	113,056	83,501	29,555	(1.1691)	(1,322)	(976)	(346)
3	Small Volume General Service	M1	951,810	822,199	129,611	(0.6869)	(6,538)	(5,648)	(890)
4	Large Volume General Service	M2	429,887	313,806	116,081	(0.4369)	(1,878)	(1,371)	(507)
5	Total General Service for Prospective Recovery (Refund) - Delivery		<u>1,816,036</u>	<u>1,495,097</u>	<u>320,939</u>		<u>(13,180)</u>	<u>(10,948)</u>	<u>(2,233)</u>
<u>General Service for Prospective Recovery(Refund) - Gas Supply Transportation</u>									
6	Small Volume General Service-NW	01	90,838	80,740	10,098	(8.0456)	(7,308)	(6,496)	(812)
7	Small Volume General Service-NE	01	230,446	194,851	35,595	(0.4405)	(1,015)	(858)	(157)
8	Large Volume General Service-NW	10	27,145	19,561	7,584	(5.4548)	(1,481)	(1,067)	(414)
9	Large Volume General Service-NE	10	84,374	62,677	21,697	(0.2959)	(250)	(185)	(64)
10	Total General Service for Prospective Recovery (Refund) - Gas Supply Transportation		<u>432,803</u>	<u>357,830</u>	<u>74,973</u>		<u>(10,054)</u>	<u>(8,607)</u>	<u>(1,447)</u>
<u>Prospective Recovery/(Refund) - Gas Supply Commodity</u>									
11	Small Volume General Service	M1	889,983	771,375	118,608	0.7902	7,033	6,095	937
12	Large Volume General Service	M2	224,466	139,468	84,998	0.7902	1,774	1,102	672
13	Firm Com/Ind Contract	M4	20,550	15,982	4,568	0.7902	162	126	36
14	Interruptible Com/Ind Contract	M5	2,744	625	2,119	0.7902	22	5	17
15	Special Large Volume Contract	M7	7,927	7,534	393	0.7902	63	60	3
16	Large Wholesale	M9	10,631	6,454	4,177	0.7902	84	51	33
17	Small Wholesale	M10	125	101	24	0.7902	1	1	0
18	Total Prospective Recovery (Refund) - Gas Supply Commodity		<u>1,156,427</u>	<u>941,540</u>	<u>214,886</u>		<u>9,138</u>	<u>7,440</u>	<u>1,698</u>
19	Total						<u>(14,096)</u>	<u>(12,115)</u>	<u>(1,982)</u>

Notes:

(1) Forecast volume for the period October 1, 2021 to December 31, 2021.

(2) Unit rate for prospective recovery/refund for each rate class equal to the gas supply commodity weighted-average unit rate.

UNION RATE ZONES
Calculation of Balances by Rate Class in the NAC Deferral Account (No. 179-133) - Base Rates and Y-Factor

Line No.	Particulars	Rate 01 (a)	Rate 10 (b)	Rate M1 (c)	Rate M2 (d)	Net Account Balance (e)
<u>Base Rates</u>						
1	2021 Target NAC: m ³	2,889.4	171,539.6	2,775.7	168,419.3	
2	2021 Actual NAC: m ³	2,765.6	151,410.7	2,667.6	149,839.7	
3	Actual change in NAC: m ³ (line 1 - 2)	123.7	20,128.9	108.1	18,579.6	
<u>Y Factor Rates</u>						
4	2021 Target NAC: m ³	2,829.8	166,842.2	2,691.8	169,476.8	
5	2021 Actual NAC: m ³	2,765.6	151,410.7	2,667.6	149,839.7	
6	Actual change in NAC: m ³ (line 4 - 5)	64.2	15,431.5	24.2	19,637.1	
7	2013 Board-approved number of Customers at December	323,287.0	2,064.0	1,067,757.0	6,778.0	1,399,886.0
<u>Base Rates</u>						
8	Annual Volume Impact (10 ³ m ³)	(1)	39,588	41,294	114,193	126,241
9	2021 Net Annual Average Delivery Rate (\$/m3)	(2)	\$0.087	\$0.053	\$0.037	\$0.034
10	2021 Net Annual Average Storage Rate (\$/m3)	(3)	\$0.047	\$0.034	\$0.008	\$0.007
11	Delivery Rate Annual Balance Amount (\$000)	(4)	\$3,461	\$2,168	\$4,221	\$4,255
12	Storage Rate Annual Balance Amount (\$000)	(4)	\$1,873	\$1,407	\$916	\$886
<u>Y Factor Rates</u>						
13	Annual Volume Impact (10 ³ m ³)	(1)	20,531	31,672	25,241	133,236
14	2021 Net Annual Average Delivery Rate (\$/m3)	(2)	\$0.006	\$0.009	\$0.013	\$0.011
15	2021 Net Annual Average Storage Rate (\$/m3)	(3)	\$0.000	\$0.000	\$0.000	\$0.000
16	Delivery Rate Annual Balance Amount (\$000)	(4)	\$133	\$276	\$317	\$1,523
17	Storage Rate Annual Balance Amount (\$000)	(4)	\$0	\$0	\$0	\$0
<u>Total Annual Balance Amounts (\$000)</u>						
18	Total Delivery Rate Annual Balance Amount (line 11+16)		\$3,594	\$2,444	\$4,539	\$5,779
19	Total Storage Rate Annual Balance Amount (line 12+17)		\$1,873	\$1,407	\$916	\$886
20	Storage Cost Annual Balance Amount (\$000)		(\$201)	(\$99)	(\$890)	(\$1,249)
21	Interest (\$000)	(5)	\$64	\$45	\$65	\$65
22	Total Deferral Account Amounts (\$000) (line 18+19+20+21)		\$5,330	\$3,797	\$4,629	\$5,481

Notes:

- (1) The annual volume is obtained from a monthly calculation of approved customers and the monthly usage variance.
- (2) The Net Annual Average Delivery Rate is the volume-weighted average of Board-approved monthly unit rates in effect
- (3) The Net Annual Average Storage Rate is the volume-weighted average of Board-approved monthly unit rates in effect
- (4) The annual revenue is obtained from a monthly calculation of volumes (lines 8 and 13) and the monthly unit delivery and storage rates (lines 9, 10, 14 and 15).
- (5) Interest is calculated on the monthly opening balance in the deferral account in accordance with the methodology approved by the Board in EB-2006-0117. Interest is calculated to Dec 31, 2022.

CALCULATION OF 2021 TRANSPORTATION REVENUES ON THE LOBO D/BRIGHT C/DAWN H COMPRESSOR
PROJECT COST DEFERRAL ACCOUNT
UNION RATE ZONES

Particulars	Volume (TJ/d) ⁽¹⁾	Revenue (\$000's) ⁽²⁾	Project Surplus Allocation (%)	Allocation (\$000's)
	(a)	(b)	(a)	(d) = (b) x (c)
<u>2021</u>				
January	30	111	100%	111
February	30	111	100%	111
March	30	111	100%	111
April	30	111	100%	111
May	30	111	100%	111
June	30	111	100%	111
July	30	111	100%	111
August	30	111	100%	111
September	30	111	100%	111
October	30	111	100%	111
November	30	111	100%	111
December	30	111	100%	111
Total		1,337		1,337

Notes

⁽¹⁾ Capacity of 30,393 GJ/d assumed to be sold long term.

⁽²⁾ Sold at the Dawn to Parkway M12 Rate of \$3.665 \$/GJ

ALLOCATION AND DISPOSITION OF
2021 DEFERRAL AND VARIANCE ACCOUNT BALANCES

1. The purpose of this evidence is to address the allocation and disposition of 2021 deferral and variance account balances identified at Exhibit C, Tab 1, Schedule 1.
2. Enbridge Gas proposes to dispose of the approved 2021 deferral and variance account balances with the first QRAM application following the OEB's approval, as early as January 1, 2023.
3. This exhibit of evidence is organized as follows:
 1. Allocation of Deferral and Variance Accounts
 - 1.1 EGI Accounts
 - 1.2 EGD Rate Zone Accounts
 - 1.3 Union Rate Zones' Accounts
 2. Disposition of Deferral and Variance Accounts
 3. General Service Bill Impacts

1. Allocation of Deferral and Variance Accounts

4. In accordance with the OEB's EB-2017-0306/EB-2017-0307 Decision and Order (MAADs Decision), the OEB approved new EGI deferral and variance accounts that apply to both the EGD rate zone and Union rate zones effective January 1, 2019. The applicability of other deferral and variance accounts that were approved to continue during the deferred rebasing period is for either the EGD rate zone or the Union rate zones.

1.1. EGI Accounts

5. The OEB previously approved¹ the following deferral and variance accounts for Enbridge Gas that are applicable to both the EGD and Union rate zones:
 - Accounting Policy Changes Deferral Account (APCDA),
 - Earnings Sharing Mechanism Deferral Account (ESMDA),
 - Tax Variance Deferral Account (TVDA),
 - Expansion of Natural Gas Distribution System Variance Account (ENGDSVA),
 - IRP Operating Costs Deferral Account,
 - IRP Capital Costs Deferral Account, and
 - Impacts Arising from the COVID-19 Emergency Deferral Account (IACEDA).

6. Enbridge Gas is proposing to dispose of the 2021 balance in the TVDA and the IRP Operating Costs Deferral Account as part of this application. The balance in the APCDA and IACEDA are not proposed for disposition as part of this application, as described at Exhibit C, Tab 1. There is no balance for the ESMDA, ENGDSVA and IRP Capital Costs Deferral Account, as shown at Exhibit C, Tab 1, Schedule 1.

7. The 2021 TVDA balance, including interest, is a credit of \$19.390 million as shown at Exhibit C, Tab 1, Schedule 1. Consistent with the methodology approved by the OEB in previous years, Enbridge Gas has split the credit balance of \$19.390 million between the EGD and Union rate zones in proportion to the 2018 actual rate base for each rate zone.² Splitting the \$19.390 million TVDA credit balance in proportion to 2018 actual rate base results in a credit of \$10.236 million being cleared to the EGD rate zone and a credit of \$9.154 million being cleared to the Union rate zones. The details of the split to rate zones is provided at Exhibit F, Tab 1, Schedule 1.

¹ EB-2017-0306/EB-2017-0307 Decision and Order established the APCDA, ESMDA and TVDA. The ENGDSVA was established in accordance with Section 4 of Ontario Regulation 24/19. The IRP Operating Costs Deferral Account and the IRP Capital Costs Deferral Account were established in accordance with the EB-2020-0091 Decision and Order.

² EB-2020-0134 Decision and Order, May 6, 2021, page 16.

8. The 2021 IRP Operating Cost Deferral Account balance, including interest, is a debit of \$0.058 million as shown at Exhibit C, Tab 1, Schedule 1. Consistent with the TVDA, Enbridge Gas has split the debit balance of \$0.058 million between the EGD and Union rate zones in proportion to the 2018 actual rate base for each rate zone.³ Splitting the \$0.058 million debit balance in proportion to 2018 actual rate base results in a debit of \$0.031 million being cleared to the EGD rate zone and a debit of \$0.027 million being cleared to the Union rate zones. The details of the split to rate zones is provided at Exhibit F, Tab 1, Schedule 1.
9. Enbridge Gas has allocated the split balance of the TVDA and IRP Operating Cost Deferral Account to rate classes in each rate zone in proportion to 2018 rate base for the EGD rate zone and 2013 rate base for the Union rate zones. The rate base allocation for each rate zone is taken from the last fully allocated cost study prepared for each rate zone. The allocation to EGD rate classes is provided at Exhibit F, Tab 2, Schedule 3. The allocation to Union rate classes is provided at Exhibit F, Tab 3, Schedule 2.

1.2 EGD Rate Zone Accounts

10. The 2021 deferral and variance account balances to be cleared to the EGD rate zone are provided at Exhibit F, Tab 2, Schedule 2, including the EGD rate zone allocation of the EGI accounts.
11. The 2021 EGD rate zone deferral and variance account balances are allocated to the customer classes using the same methodologies that the OEB approved in previous years.
12. The allocation of account balances to EGD rate classes based on cost drivers for each type of account is provided at Exhibit F, Tab 2, Schedule 3. A summary of the

³ EB-2020-0134 Decision and Order, May 6, 2021, page 16.

allocation of account balances by rate class and type of service is provided at Exhibit F, Tab 2, Schedule 4.

1.3 Union Rate Zones' Accounts

13. The 2021 deferral and variance account balances to be cleared to the Union rate zones are provided at Exhibit F, Tab 3, Schedule 1, including the Union rate zones allocation of the EGI accounts.
14. The 2021 Union rate zones' deferral and variance account balances are allocated to the customer classes using the same methodologies that the OEB approved in previous years except for the Deferral Clearing Variance Account (179-132) in the Union rate zone.
15. With the harmonization of Enbridge Gas's customer information system (CIS) in 2021, the Union rate zone is no longer able to identify and allocate DCVA balances to rate classes. Consistent with the EGD rate zone Deferred Rebate Account allocation, Enbridge Gas proposes to split the DCVA balance between general service and contract customers. The allocation of general service and contract customer balances to rate classes is based on respective volumes. Please refer to Exhibit E, Tab 1 for background on the DCVA balance, and Exhibit F, Tab 3, Schedule 3 for the proposed allocation.
16. The allocation of account balances to Union South and Union North rate classes is provided at Exhibit F, Tab 3, Schedule 2.

2. Disposition of Deferral and Variance Accounts

17. Enbridge Gas proposes to dispose of the approved 2021 deferral and variance account balances with the first QRAM application following the OEB's approval, as early as January 1, 2023

18. Enbridge Gas proposes to dispose of the 2021 deferral and variance account balances as a one-time billing adjustment. The billing adjustment will appear as a separate line item on customers' bills, the earliest being January 2023. The one-time billing adjustment will be derived for each customer by applying the disposition unit rates to each customer's actual consumption volume or contract demand, as applicable, for the period January 1, 2021 to December 31, 2021.
19. The unit rates for disposition by rate class and service type are provided at Exhibit F, Tab 2, Schedule 1 and Schedule 5 for the EGD rate zone. The unit rates for disposition for the Union rate zones, including a summary of the balances to be disposed of to ex-franchise rate classes are provided at Exhibit F, Tab 3, Schedule 4.

3. General Service Bill Impacts

20. For a Rate 1 sales service and western t-service customer in the EGD rate zone with annual consumption of 2,400 m³, the one-time billing adjustment charge is \$5.01.⁴ /u
21. For a Rate M1 sales service residential customer in Union South with annual consumption of 2,200 m³, the one-time billing adjustment charge is \$9.34. For a Rate M1 bundled direct purchase (DP) residential customer, the one-time billing adjustment charge is \$1.91. /u
22. For a Rate 01 sales service and bundled DP residential customer in Union North West with annual consumption of 2,200 m³, the one-time billing adjustment credit is \$17.33. /u

⁴ In addition to the EGD rate zone 2021 Deferral bill impacts, the allocation of Union rate zone deferrals to Rate M12 results in a bill impact of approximately \$1.00 to a typical Rate 1 residential customer in the EGD rate zone.

23. For a Rate 01 sales service and bundled DP residential customer in Union North East with annual consumption of 2,200 m³, the one-time billing adjustment charge is \$7.78.

/u

24. Bill impacts of the proposed disposition are provided at Exhibit F, Tab 2, Schedule 6 for the EGD rate zone and Exhibit F, Tab 3, Schedule 5 for the Union rate zones.

ENBRIDGE GAS INC.
Split of EGI Account Balances to Rate Zones

Line No.	Particulars (\$ millions)	Allocator	Account Balance		
		2018 Actual Rate Base (1)	Principal (2)	Interest (2)	Total
		(a)	(b)	(c)	(d) = (b+c)
<u>2021 Tax Variance Deferral Account</u>					
1	EGD rate zone	6,729	(10.116)	(0.120)	(10.236)
2	Union rate zones	6,018	(9.047)	(0.107)	(9.154)
3	Total	12,748	(19.163)	(0.227)	(19.390)
<u>2021 IRP Operating Costs Deferral Account</u>					
4	EGD	6,729	0.030	0.000	0.031
5	Union	6,018	0.027	0.000	0.027
6	Total	12,748	0.058	0.000	0.058

Note:

- (1) 2018 actual rate base per EB-2019-0105, Exhibit B, Tab 2, Appendix B, Schedule 1 for the EGD rate zone and EB-2019-0105, Exhibit C, Tab 2, Appendix A, Schedule 4 for the Union rate zones.
- (2) Allocated in proportion to column (a).

ENBRIDGE GAS INC.**EGD RATE ZONE****UNIT RATE AND TYPE OF SERVICE: CLEARING IN JANUARY 2023**

COL.1

UNIT RATE
(\$/m³)**Bundled Services:**

RATE 1	- SYSTEM SALES	0.2086
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.2572
	- DAWN T-SERVICE	0.2572
	- WESTERN T-SERVICE	0.2086
RATE 6	- SYSTEM SALES	0.2527
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.3013
	- DAWN T-SERVICE	0.3013
	- WESTERN T-SERVICE	0.2527
RATE 9	- SYSTEM SALES	0.0151
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.0000
	- DAWN T-SERVICE	0.0000
	- WESTERN T-SERVICE	0.0000
RATE 100	- SYSTEM SALES	0.0675
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.1160
	- DAWN T-SERVICE	0.1160
	- WESTERN T-SERVICE	0.0000
RATE 110	- SYSTEM SALES	0.0209
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.0694
	- DAWN T-SERVICE	0.0694
	- WESTERN T-SERVICE	0.0209
RATE 115	- SYSTEM SALES	0.0127
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.0613
	- DAWN T-SERVICE	0.0613
	- WESTERN T-SERVICE	0.0000
RATE 135	- SYSTEM SALES	0.0123
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.0000
	- DAWN T-SERVICE	0.0609
	- WESTERN T-SERVICE	0.0123
RATE 145	- SYSTEM SALES	0.0000
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.0000
	- DAWN T-SERVICE	0.0734
	- WESTERN T-SERVICE	0.0000
RATE 170	- SYSTEM SALES	0.0200
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.0685
	- DAWN T-SERVICE	0.0685
	- WESTERN T-SERVICE	0.0000
RATE 200	- SYSTEM SALES	0.0607
	- BUY/SELL	0.0000
	- ONTARIO T-SERVICE	0.1092
	- DAWN T-SERVICE	0.1092
	- WESTERN T-SERVICE	0.0000

Unbundled Services (Billing based on CD):

RATE 125	- All	(0.3318)
RATE 300	- All	(1.5672)
RATE 332	- All	(0.3320)

ENBRIDGE GAS INC.
EGD RATE ZONE
DETERMINATION OF BALANCES TO BE CLEARED
FROM THE 2021 DEFERRAL AND VARIANCE ACCOUNTS

ITEM NO.		COL. 1 PRINCIPAL FOR CLEARING (\$000)	COL. 2 INTEREST (\$000)	COL. 3 TOTAL FOR CLEARING (\$000)
<u>EGD RATE ZONE</u>				
1.	TRANSACTIONAL SERVICES D/A	(3,904.1)	(35.4)	(3,939.6)
2.	UNACCOUNTED FOR GAS V/A	753.9	4.5	758.4
3.	STORAGE AND TRANSPORTATION D/A	7,942.5	97.0	8,039.5
4.	DEFERRED REBATE ACCOUNT	4,359.4	53.5	4,412.9
5.	OEB COST ASSESSMENT VARIANCE ACCOUNT	2,550.3	31.5	2,581.8
6.	AVERAGE USE TRUE-UP V/A	14,934.3	135.5	15,069.8
7.	TRANSITION IMPACT OF ACCT CHANGE D/A	4,435.8	-	4,435.8
8.	DAWN ACCESS COSTS D/A	1,968.0	17.9	1,985.9
9.	EGD RATE ZONE SUB-TOTAL	<u>33,040.0</u>	<u>304.5</u>	<u>33,344.6</u>
<u>EGI ACCOUNTS</u>				
10.	TAX VARIANCE - ACCELERATED CCA - EGD RATE ZONE PORTION	(10,115.6)	(119.9)	(10,235.5)
11.	IRP OPERATING COST DEFERRAL ACCOUNT - EGD RATE ZONE PORTION	30.5	0.3	30.7
12.	EGI SUB-TOTAL	<u>(10,085.1)</u>	<u>(119.7)</u>	<u>(10,204.8)</u>
13.	TOTAL	<u>22,954.9</u>	<u>184.9</u>	<u>23,139.8</u>

ENBRIDGE GAS INC.EGD RATE ZONECLASSIFICATION AND ALLOCATION OF DEFERRAL AND VARIANCE ACCOUNT BALANCES

ITEM <u>NO.</u>	COL.1	COL. 2	COL. 3	COL. 4	COL. 5	COL. 6	COL. 7	COL. 8	COL. 9	COL. 10
	TOTAL (\$000)	SALES AND WBT (\$000)	TOTAL SALES (\$000)	TOTAL DELIVERIES (\$000)	SPACE (\$000)	DELIVE- RABILITY (\$000)	DIRECT (\$000)	NUMBER OF CUSTOMERS (\$000)	RATE BASE (\$000)	BUNDLED ANNUAL DELIVERIES (\$000)
CLASSIFICATION										
1. TRANSACTIONAL SERVICES D/A	(3,939.6)	(3,792.2)			(50.2)	(97.2)				
2. UNACCOUNTED FOR GAS V/A	758.4			758.4						
3. STORAGE AND TRANSPORTATION D/A	8,039.5				2,736.9	5,302.6				
4. DEFERRED REBATE ACCOUNT	4,412.9			4,412.9						
5. OEB COST ASSESSMENT VARIANCE ACCOUNT	2,581.8								2,581.8	
6. TAX VARIANCE - ACCELERATED CCA - EGI	(10,235.5)								(10,235.5)	
7. AVERAGE USE TRUE-UP V/A	15,069.8						15,069.8			
8. IRP OPERATING COST DEFERRAL ACCOUNT - EGI	30.7								30.7	
9. TRANSITION IMPACT OF ACCT CHANGE D/A	4,435.8								4,435.8	
10. DAWN ACCESS COSTS D/A	1,985.9									1,985.9
TOTAL	23,139.8	(3,792.2)	0.0	5,171.3	2,686.7	5,205.4	15,069.8	0.0	(3,187.2)	1,985.9
ALLOCATION										
1.1 RATE 1	9,940.8	(2,270.6)	0.0	2,183.6	1,286.9	2,859.2	7,134.0	0.0	(2,090.8)	838.5
1.2 RATE 6	11,974.2	(1,397.3)	0.0	2,040.9	1,233.1	2,263.7	7,935.8	0.0	(885.7)	783.7
1.3 RATE 9	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.4 RATE 100	33.2	(6.3)	0.0	15.6	7.3	17.3	0.0	0.0	(6.8)	6.0
1.5 RATE 110	718.7	(46.3)	0.0	506.7	89.8	12.1	0.0	0.0	(38.3)	194.6
1.6 RATE 115	237.1	(0.5)	0.0	178.3	0.0	4.8	0.0	0.0	(14.0)	68.5
1.7 RATE 125	(30.7)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(30.7)	0.0
1.8 RATE 135	37.0	(1.4)	0.0	29.0	0.0	0.0	0.0	0.0	(1.8)	11.1
1.9 RATE 145	18.2	0.0	0.0	11.4	5.6	0.0	0.0	0.0	(3.1)	4.4
1.10 RATE 170	172.2	(3.1)	0.0	117.6	16.9	0.0	0.0	0.0	(4.4)	45.2
1.11 RATE 200	142.8	(66.9)	0.0	88.3	47.2	48.2	0.0	0.0	(8.0)	33.9
1.12 RATE 300	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.2)	0.0
1.13 RATE 332	(103.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(103.4)	0.0
TOTAL	23,139.8	(3,792.2)	0.0	5,171.3	2,686.7	5,205.4	15,069.8	0.0	(3,187.2)	1,985.9

ENBRIDGE GAS INC.
EGD RATE ZONE
ALLOCATION BY TYPE OF SERVICE

	COL.1	COL. 2	COL. 3	COL. 4	COL. 5	COL. 6	COL. 7	COL. 8	COL. 9	COL. 10	
	TOTAL	SALES AND WBT	TOTAL SALES	TOTAL DELIVERIES	SPACE	DELIVE-RABILITY	DIRECT	NUMBER OF CUSTOMERS	RATE BASE	BUNDLED ANNUAL DELIVERIES	
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	
Bundled Services:											
RATE 1	- SYSTEM SALES	9,734.6	(2,264.0)	-	2,145.5	1,264.5	2,809.3	7,009.7	-	(2,054.3)	823.9
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	0.1	-	-	0.0	0.0	0.0	0.1	-	(0.0)	0.0
	- DAWN T-SERVICE	177.9	-	-	31.8	18.7	41.6	103.9	-	(30.5)	12.2
	- WBT	28.2	(6.6)	-	6.2	3.7	8.1	20.3	-	(5.9)	2.4
RATE 6	- SYSTEM SALES	6,925.4	(1,329.6)	-	1,260.0	761.2	1,397.5	4,899.2	-	(546.8)	483.8
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	137.6	-	-	21.0	12.7	23.3	81.7	-	(9.1)	8.1
	- DAWN T-SERVICE	4,558.4	-	-	695.7	420.4	771.7	2,705.4	-	(301.9)	267.2
	- WBT	352.8	(67.7)	-	64.2	38.8	71.2	249.6	-	(27.9)	24.6
RATE 9	- SYSTEM SALES	0.0	(0.0)	-	0.0	0.0	-	-	-	-	0.0
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	-	-	-	-	-	-	-	-	-	-
	- DAWN T-SERVICE	-	-	-	-	-	-	-	-	-	-
	- WBT	-	-	-	-	-	-	-	-	-	-
RATE 100	- SYSTEM SALES	8.7	(6.3)	-	5.9	2.8	6.6	-	-	(2.6)	2.3
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	1.9	-	-	0.7	0.3	0.8	-	-	(0.3)	0.3
	- DAWN T-SERVICE	22.6	-	-	9.0	4.2	9.9	-	-	(3.9)	3.4
	- WBT	-	-	-	-	-	-	-	-	-	-
RATE 110	- SYSTEM SALES	17.4	(40.4)	-	38.3	6.8	0.9	-	-	(2.9)	14.7
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	39.5	-	-	26.2	4.6	0.6	-	-	(2.0)	10.1
	- DAWN T-SERVICE	659.2	-	-	436.6	77.4	10.5	-	-	(33.0)	167.7
	- WBT	2.5	(5.9)	-	5.6	1.0	0.1	-	-	(0.4)	2.1
RATE 115	- SYSTEM SALES	0.1	(0.5)	-	0.5	0.0	0.0	-	-	(0.0)	0.2
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	81.1	-	-	60.9	0.0	1.7	-	-	(4.8)	23.4
	- DAWN T-SERVICE	155.8	-	-	116.9	0.0	3.2	-	-	(9.2)	44.9
	- WBT	-	-	-	-	-	-	-	-	-	-
RATE 135	- SYSTEM SALES	0.3	(1.3)	-	1.2	-	-	-	-	(0.1)	0.5
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	-	-	-	-	-	-	-	-	-	-
	- DAWN T-SERVICE	36.7	-	-	27.7	-	-	-	-	(1.7)	10.6
	- WBT	0.0	(0.1)	-	0.1	-	-	-	-	(0.0)	0.0
RATE 145	- SYSTEM SALES	-	-	-	-	-	-	-	-	-	-
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	-	-	-	-	-	-	-	-	-	-
	- DAWN T-SERVICE	18.2	-	-	11.4	5.6	-	-	-	(3.1)	4.4
	- WBT	-	-	-	-	-	-	-	-	-	-
RATE 170	- SYSTEM SALES	1.3	(3.1)	-	2.9	0.4	-	-	-	(0.1)	1.1
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	99.4	-	-	66.7	9.6	-	-	-	(2.5)	25.6
	- DAWN T-SERVICE	71.5	-	-	48.0	6.9	-	-	-	(1.8)	18.4
	- WBT	-	-	-	-	-	-	-	-	-	-
RATE 200	- SYSTEM SALES	83.6	(66.9)	-	63.4	33.9	34.6	-	-	(5.7)	24.3
	- BUY/SELL	-	-	-	-	-	-	-	-	-	-
	- T-SERVICE EXCL WBT	2.0	-	-	0.9	0.5	0.5	-	-	(0.1)	0.3
	- DAWN T-SERVICE	57.2	-	-	24.1	12.9	13.2	-	-	(2.2)	9.2
	- WBT	-	-	-	-	-	-	-	-	-	-
Unbundled Services: (Billing based on CD)											
RATE 125		(30.7)	-	-	-	-	-	-	-	(30.7)	-
RATE 300		(0.2)	-	-	-	-	-	-	-	(0.2)	-
RATE 332		(103.4)	-	-	-	-	-	-	-	(103.4)	-
		23,139.8	(3,792.2)	0.0	5,171.3	2,686.7	5,205.4	15,069.8	0.0	(3,187.2)	1,985.9

ENBRIDGE GAS INC.
EGD RATE ZONE
UNIT RATE BY TYPE OF SERVICE*

	COL. 1	COL. 2	COL. 3	COL. 4	COL. 5	COL. 6	COL. 7	COL. 8	COL. 9	COL. 10	
	TOTAL	SALES AND WBT	TOTAL SALES	TOTAL DELIVERIES	SPACE	DELIVE- RABILITY	DIRECT	NUMBER OF CUSTOMERS	RATE BASE	BUNDLED ANNUAL DELIVERIES	
	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	(¢/m³)	
Bundled Services:											
RATE 1	- SYSTEM SALES	0.2086	(0.0485)	0.0000	0.0460	0.0271	0.0602	0.1502	0.0000	(0.0440)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.2572	0.0000	0.0000	0.0460	0.0271	0.0602	0.1502	0.0000	(0.0440)	0.0177
	- DAWN T-SERVICE	0.2572	0.0000	0.0000	0.0460	0.0271	0.0602	0.1502	0.0000	(0.0440)	0.0177
	- WESTERN T-SERVICE	0.2086	(0.0485)	0.0000	0.0460	0.0271	0.0602	0.1502	0.0000	(0.0440)	0.0177
RATE 6	- SYSTEM SALES	0.2527	(0.0485)	0.0000	0.0460	0.0278	0.0510	0.1788	0.0000	(0.0200)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.3013	0.0000	0.0000	0.0460	0.0278	0.0510	0.1788	0.0000	(0.0200)	0.0177
	- DAWN T-SERVICE	0.3013	0.0000	0.0000	0.0460	0.0278	0.0510	0.1788	0.0000	(0.0200)	0.0177
	- WESTERN T-SERVICE	0.2527	(0.0485)	0.0000	0.0460	0.0278	0.0510	0.1788	0.0000	(0.0200)	0.0177
RATE 9	- SYSTEM SALES	0.0151	(0.0485)	0.0000	0.0460	0.0000	0.0000	0.0000	0.0000	0.0000	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- DAWN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- WESTERN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RATE 100	- SYSTEM SALES	0.0675	(0.0485)	0.0000	0.0460	0.0213	0.0510	0.0000	0.0000	(0.0200)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.1160	0.0000	0.0000	0.0460	0.0213	0.0510	0.0000	0.0000	(0.0200)	0.0177
	- DAWN T-SERVICE	0.1160	0.0000	0.0000	0.0460	0.0213	0.0510	0.0000	0.0000	(0.0200)	0.0177
	- WESTERN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RATE 110	- SYSTEM SALES	0.0209	(0.0485)	0.0000	0.0460	0.0082	0.0011	0.0000	0.0000	(0.0035)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.0694	0.0000	0.0000	0.0460	0.0082	0.0011	0.0000	0.0000	(0.0035)	0.0177
	- DAWN T-SERVICE	0.0694	0.0000	0.0000	0.0460	0.0082	0.0011	0.0000	0.0000	(0.0035)	0.0177
	- WESTERN T-SERVICE	0.0209	(0.0485)	0.0000	0.0460	0.0082	0.0011	0.0000	0.0000	(0.0035)	0.0177
RATE 115	- SYSTEM SALES	0.0127	(0.0485)	0.0000	0.0460	0.0000	0.0012	0.0000	0.0000	(0.0036)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.0613	0.0000	0.0000	0.0460	0.0000	0.0012	0.0000	0.0000	(0.0036)	0.0177
	- DAWN T-SERVICE	0.0613	0.0000	0.0000	0.0460	0.0000	0.0012	0.0000	0.0000	(0.0036)	0.0177
	- WESTERN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RATE 135	- SYSTEM SALES	0.0123	(0.0485)	0.0000	0.0460	0.0000	0.0000	0.0000	0.0000	(0.0028)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- DAWN T-SERVICE	0.0609	0.0000	0.0000	0.0460	0.0000	0.0000	0.0000	0.0000	(0.0028)	0.0177
	- WESTERN T-SERVICE	0.0123	(0.0485)	0.0000	0.0460	0.0000	0.0000	0.0000	0.0000	(0.0028)	0.0177
RATE 145	- SYSTEM SALES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- DAWN T-SERVICE	0.0734	0.0000	0.0000	0.0460	0.0224	0.0000	0.0000	0.0000	(0.0127)	0.0177
	- WESTERN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RATE 170	- SYSTEM SALES	0.0200	(0.0485)	0.0000	0.0460	0.0066	0.0000	0.0000	0.0000	(0.0017)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.0685	0.0000	0.0000	0.0460	0.0066	0.0000	0.0000	0.0000	(0.0017)	0.0177
	- DAWN T-SERVICE	0.0685	0.0000	0.0000	0.0460	0.0066	0.0000	0.0000	0.0000	(0.0017)	0.0177
	- WESTERN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RATE 200	- SYSTEM SALES	0.0607	(0.0485)	0.0000	0.0460	0.0246	0.0251	0.0000	0.0000	(0.0042)	0.0177
	- BUY/SELL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	- ONTARIO T-SERVICE	0.1092	0.0000	0.0000	0.0460	0.0246	0.0251	0.0000	0.0000	(0.0042)	0.0177
	- DAWN T-SERVICE	0.1092	0.0000	0.0000	0.0460	0.0246	0.0251	0.0000	0.0000	(0.0042)	0.0177
	- WESTERN T-SERVICE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unbundled Services (Billing based on CD, ¢/m3):											
RATE 125	- All	(0.3318)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	(0.3318)	0.0000
	- Customer-specific **										
RATE 300	- All	(1.5672)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	(1.5672)	0.0000
	- Customer-specific **										
RATE 332	- All	(0.3320)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	(0.3320)	0.0000

Notes:

* Unit Rates derived based on 2021 actual volumes

ENBRIDGE GAS INC.
EGD RATE ZONE
2021 DEFERRAL AND VARIANCE ACCOUNT CLEARING
BILL ADJUSTMENT IN JANUARY 2023 FOR TYPICAL CUSTOMERS

ITEM NO.	COL. 1	COL. 2	COL. 3	COL. 4	COL. 5	COL. 6	COL. 7	COL. 8	COL. 9	COL. 10
		ANNUAL VOLUME m ³	UNIT RATE				BILL ADJUSTMENT			
	GENERAL SERVICE		SALES (c/m ³)	ONTARIO TS (c/m ³)	DAWN TS (c/m ³)	WESTERN TS (c/m ³)	SALES CUSTOMERS (\$)	ONTARIO TS CUSTOMERS (\$)	DAWN TS CUSTOMERS (\$)	WESTERN TS CUSTOMERS (\$)
1.1	RATE 1 RESIDENTIAL									
1.2	Heating & Water Heating	2,400	0.2086	0.2572	0.2572	0.2086	5.01	6.17	6.17	5.01
2.1	RATE 6 COMMERCIAL									
2.2	Heating & Other Uses	22,606	0.2527	0.3013	0.3013	0.2527	57.14	68.10	68.10	57.14
2.3	General Use	43,285	0.2527	0.3013	0.3013	0.2527	109.40	130.40	130.40	109.40
	CONTRACT SERVICE									
3.1	RATE 100									
3.2	Industrial - small size	339,188	0.0675	0.1160	0.1160	0.0000	228.93	393.51	393.51	-
4.1	RATE 110									
4.2	Industrial - small size, 50% LF	598,568	0.0209	0.0694	0.0694	0.0209	125.09	415.53	415.53	125.09
4.3	Industrial - avg. size, 75% LF	9,976,121	0.0209	0.0694	0.0694	0.0209	2,084.82	6,925.45	6,925.45	2,084.82
5.1	RATE 115									
5.2	Industrial - small size, 80% LF	4,471,609	0.0127	0.0613	0.0613	0.0000	570.01	2,739.73	2,739.73	-
6.1	RATE 135									
6.2	Industrial - Seasonal Firm	598,567	0.0123	0.0000	0.0609	0.0123	73.83	-	364.26	73.83
7.1	RATE 145									
7.2	Commercial - avg. size	598,568	0.0000	0.0000	0.0734	0.0000	-	-	439.29	-
8.1	RATE 170									
8.2	Industrial - avg. size, 75% LF	9,976,121	0.0200	0.0685	0.0685	0.0000	1,996.70	6,837.33	6,837.33	-

Notes:
 Col. 7 = Col. 2 x Col. 3
 Col. 8 = Col. 2 x Col. 4
 Col. 9 = Col. 2 x Col. 5
 Col. 10 = Col. 2 x Col. 6

ENBRIDGE GAS INC.
 Union Rate Zones
 Unit Rate and Type of Service
2021 Deferral Account Disposition

Line No.	Particulars	<u>Sales/System Gas</u> <u>Unit Rate for Billing</u>	<u>Bundled T-Service</u> <u>Unit Rate for Billing</u>	<u>T-Service</u> <u>Unit Rate for Billing</u>
		Unit Rate (cents/m ³) (a)	Unit Rate (cents/m ³) (b)	Unit Rate (cents/m ³) (c)
	<u>Union North West</u>			
1	Rate 01	(0.7877)	(0.7877)	0.4169
2	Rate 10	0.3313	0.3313	1.1667
3	Rate 20	(4.9363)	(4.9363)	(0.0106)
4	Rate 25	0.1585	0.1585	(0.0167)
5	Rate 100	(0.0159)	(0.0159)	(0.0159)
	<u>Union North East</u>			
6	Rate 01	0.3537	0.3537	0.4169
7	Rate 10	1.1092	1.1092	1.1667
8	Rate 20	(0.9102)	(0.9102)	(0.0106)
9	Rate 25	(0.0549)	(0.0549)	(0.0167)
10	Rate 100	(0.0159)	(0.0159)	(0.0159)
	<u>Union South</u>			
11	Rate M1	0.7547	0.4169	-
12	Rate M2	1.5045	1.1667	-
13	Rate M4	0.4193	0.0815	-
14	Rate M5	0.2270	(0.1108)	-
15	Rate M7	0.4564	0.1186	-
16	Rate M9	0.4673	0.1295	-
17	Rate M10	0.3250	(0.0128)	-
18	Rate T1	-	-	0.0202
19	Rate T2	-	-	0.0420
20	Rate T3	-	-	0.0958

ENBRIDGE GAS INC.
Union Rate Zones
2021 Deferral Account Balances To Be Cleared
Year Ending December 31, 2021

Line No.	Account Number	Account Name (\$000's)	Balance (a)	Interest (b)	Total (c)
1	179-131	Upstream Transportation Optimization	8,616	78	8,695
2	179-107	Spot Gas Variance Account	-	-	-
3	179-108	Unabsorbed Demand Costs Variance Account	(1,666)	(28)	(1,694)
4	179-153	Base Service North T-Service TransCanada Capacity	84	1	84
5	179-070	Short-Term Storage and Other Balancing Services	3,577	32	3,609
6	179-133	Normalized Average Consumption	18,997	239	19,237
7	179-132	Deferral Clearing Variance Account	(3,120)	(45)	(3,166)
8	179-151	OEB Cost Assessment Variance Account	907	11	919
9	179-103	Unbundled Services Unauthorized Storage Overrun	-	-	-
10	179-112	Gas Distribution Access Rule Costs	-	-	-
11	179-123	Conservation Demand Management	-	-	-
12	179-136	Parkway West Project Costs	(603)	(6)	(610)
13	179-137	Brantford-Kirkwall/Parkway D Project Costs	(45)	(0)	(45)
14	179-142	Lobo C Compressor/Hamilton-Milton Pipeline Project Costs	24	0	24
15	179-144	Lobo D/Bright C/Dawn H Compressor Project Costs	(112)	(4)	(116)
16	179-149	Burlington-Oakville Project Costs	(51)	(1)	(52)
17	179-156	Panhandle Reinforcement Project Costs	(3,162)	(36)	(3,198)
18	179-162	Sudbury Replacement Project	-	-	-
19	179-138	Parkway Obligation Rate Variance	-	-	-
20	179-143	Unauthorized Overrun Non-Compliance Account	-	-	-
21	179-157	Pension and OPEB Forecast Accrual vs. Actual Cash Payment Differential V/A	-	(1,346)	(1,346)
22	179-135	Unaccounted for Gas Volume Variance Account	20,501	177	20,678
23	179-141	Unaccounted for Gas Price Variance Account	3,358	32	3,390
24	Total for Union Rate Zone Specific Accounts (Lines 1 through 23)		<u>47,305</u>	<u>(895)</u>	<u>46,411</u>
25	179-382	Earnings Sharing (Union Rate Zone Portion)	-	-	-
26	179-383	Tax Variance - Accelerated CCA - (Union Rate Zone Portion)	(9,047)	(107)	(9,154)
27	179-385	IRP Operating Costs Deferral Account - (Union Rate Zone Portion)	27	0	27
28	179-386	IRP Capital Costs Deferral Account	-	-	-
29	179-380	Expansion of Natural Gas Distribution Systems V/A (Union Rate Zone Portion)	-	-	-
30	Total for EGI Accounts allocated to Union Rate Zone		<u>(9,020)</u>	<u>(107)</u>	<u>(9,127)</u>
31	Total Union Rate Zone Deferral Account Balances (Line 24 + Line 30)		<u>38,286</u>	<u>(1,002)</u>	<u>37,284</u>

ENBRIDGE GAS INC.
Union Rate Zones
Classification and Allocation of Deferral and Variance Account Balances

Line No.	Particulars (\$000's)	Union North					Union South											Total (w)					
		Rate 01 (b)	Rate 10 (c)	Rate 20 (d)	Rate 100 (e)	Rate 25 (f)	M1 (g)	M2 (h)	M4 (i)	M5A (j)	M7 (k)	M9 (l)	M10 (m)	T1 (n)	T2 (o)	T3 (p)	M12 (q)		M13 (r)	Excess Utility (s)	C1 (t)	M16 (u)	M17 (v)
Gas Supply Related Deferrals:																							
1	Upstream Transportation Optimization	320	44	21	-	92	6,665	1,287	138	10	78	39	1	-	-	-	-	-	-	-	-	-	8,695
2	Spot Gas Variance Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Unabsorbed Demand Cost (UDC) Variance Account	(3,908)	(762)	(168)	-	-	2,551	492	53	4	30	15	0	-	-	-	-	-	-	-	-	(1,694)	
4	Base Service North T-Service TransCanada Capacity Account	-	-	57	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	
5	Total Gas Supply Related Deferrals	(3,588)	(718)	(90)	28	92	9,215	1,779	190	14	108	54	1	-	-	-	-	-	-	-	-	7,085	
Storage Related Deferrals:																							
6	Short-Term Storage and Other Balancing Services	493	139	76	2	-	1,124	424	190	2	106	20	0	81	859	92	-	-	-	-	-	-	3,609
Delivery Related Deferrals:																							
7	Normalized Average Consumption (NAC)	5,330	3,797	-	-	-	4,629	5,481	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19,237
8	Deferral Clearing Variance Account - Delivery	(571)	(191)	4	6	1	(1,777)	(683)	4	0	5	1	0	3	31	2	-	-	-	-	-	-	(3,166)
9	OEB Cost Assessment Variance Account	184	16	14	12	6	464	43	16	18	5	1	0	12	33	4	86	0	3	2	0	-	919
10	Unbundled Services Unauthorized Storage Overrun	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Gas Distribution Access Rule (GDAR) Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Conservation Demand Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Parkway West Project Costs	4	(8)	(1)	2	1	103	4	3	3	0	(0)	0	4	19	(1)	(748)	0	1	3	0	-	(610)
14	Brantford-Kirkwall/Parkway D Project Costs	(7)	(1)	(1)	(1)	(0)	(16)	(3)	(1)	(1)	(0)	(0)	(0)	(1)	(2)	(0)	(11)	(0)	(0)	(0)	(0)	-	(45)
15	Lobo C Compressor/Hamilton-Milton Pipeline Project Costs	(40)	(2)	(4)	(4)	(2)	(150)	(20)	(7)	(5)	(2)	(0)	(0)	(6)	(30)	(2)	298	(0)	(1)	(1)	(0)	-	24
16	Lobo D/Bright C/ Dawn H Compressor Project Costs	(108)	(4)	(6)	(7)	(3)	(368)	(39)	(15)	(13)	(4)	(0)	(0)	(15)	(73)	(3)	559	(0)	(7)	(8)	(1)	-	(116)
17	Burlington-Oakville Project Costs	(3)	(1)	(0)	(0)	(0)	(25)	(8)	(2)	(0)	(1)	(0)	(0)	(2)	(13)	(2)	6	0	(0)	0	0	-	(52)
18	Parishville Reinforcement Project Costs	(31)	(5)	(4)	(3)	(1)	(696)	(236)	(255)	(6)	(56)	(0)	(0)	(169)	(1,240)	(1)	(33)	(0)	(0)	(381)	(80)	-	(3,198)
19	Sudbury Replacement Project	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Parkway Obligation Rate Variance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Unauthorized Overrun Non-Compliance Account	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Pension & OPEB Forecast Accrual vs Actual Cash Payment Differential Variance Account	(270)	(25)	(24)	(20)	(10)	(662)	(64)	(27)	(31)	(7)	(1)	(0)	(18)	(47)	(5)	(127)	(0)	(4)	(3)	(0)	-	(1,346)
23	Unaccounted for Gas (UFG) Volume Variance Account	328	109	50	-	21	2,178	837	459	48	516	68	0	295	2,848	202	9,393	23	-	3,131	162	10	20,678
24	Unaccounted for Gas (UFG) Price Variance Account	190	63	29	-	12	1,260	484	266	28	298	39	0	-	-	-	-	13	-	687	21	-	3,390
25	Tax Variance - Accelerated CCA - EGI	(1,627)	(251)	(178)	(137)	(49)	(3,553)	(538)	(134)	(114)	(47)	(9)	(0)	(93)	(410)	(54)	(1,888)	(1)	(53)	(17)	(2)	-	(9,154)
26	IRP Operating Costs Deferral Account - EGI	5	1	1	0	0	11	2	0	0	0	0	0	0	1	0	6	0	0	0	0	-	27
27	IRP Operating Costs Deferral Account - EGI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Total Delivery-Related Deferrals	3,384	3,498	(120)	(152)	(24)	1,397	5,262	308	(72)	708	97	(0)	10	1,117	139	7,541	35	(61)	3,414	100	10	26,590
29	Total 2021 Storage and Delivery Disposition (Line 6 + Line 28)	3,877	3,638	(45)	(150)	(24)	2,522	5,686	498	(70)	814	117	(0)	91	1,977	231	7,541	35	(61)	3,414	100	10	30,199
30	Total 2021 Deferral Account Disposition (Line 5 + Line 29)	288	2,920	(134)	(122)	68	11,737	7,465	688	(57)	922	170	1	91	1,977	231	7,541	35	(61)	3,414	100	10	37,284
31	Earnings Sharing Deferral Account - EGI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Grand Total (Line 30 + Line 31)	288	2,920	(134)	(122)	68	11,737	7,465	688	(57)	922	170	1	91	1,977	231	7,541	35	(61)	3,414	100	10	37,284

ENBRIDGE GAS INC.

Union Rate Zones

Allocation of 2021 Gas Supply Related Deferral Accounts by Union North East and Union North West

Line No.	Particulars (\$000's)	Acct No. (a)	Rate 01 (b)	Rate 10 (c)	Rate 20 (d)	Rate 100 (e)	Rate 25 (f)	Total (g) = (sum b:f)
<u>Union North West</u>								
<u>Gas Supply Related Deferrals:</u>								
1	Spot Gas Variance Account	179-107	-	-	-	-	-	-
2	Unabsorbed Demand Cost (UDC) Variance Account	179-108	(3,883)	(756)	(167)	-	-	(4,806)
3	Upstream Transportation Optimization	179-131	716	175	80	-	100	1,072
4	Total Gas Supply Related Deferrals		<u>(3,167)</u>	<u>(581)</u>	<u>(87)</u>	<u>-</u>	<u>100</u>	<u>(3,735)</u>
<u>Storage Related Deferrals:</u>								
5	Short-Term Storage and Other Balancing Services (1)	179-70	141	35	7	-	-	183
6	Total North West Deferral Account Disposition (Line 6 + Line 7)		<u>(3,026)</u>	<u>(546)</u>	<u>(80)</u>	<u>-</u>	<u>100</u>	<u>(3,552)</u>
<u>Union North East</u>								
<u>Gas Supply Related Deferrals:</u>								
7	Spot Gas Variance Account	179-107	-	-	-	-	-	-
8	Unabsorbed Demand Cost (UDC) Variance Account	179-108	(25)	(6)	(1)	-	-	(32)
9	Upstream Transportation Optimization	179-131	(396)	(131)	(59)	-	(8)	(594)
10	Total Gas Supply Related Deferrals		<u>(421)</u>	<u>(137)</u>	<u>(60)</u>	<u>-</u>	<u>(8)</u>	<u>(626)</u>
<u>Storage Related Deferrals:</u>								
11	Short-Term Storage and Other Balancing Services (1)	179-70	352	104	46	-	-	502
12	Total North East Deferral Account Disposition (Line 14 + Line 15)		<u>(69)</u>	<u>(33)</u>	<u>(14)</u>	<u>-</u>	<u>(8)</u>	<u>(124)</u>
<u>Total North</u>								
<u>Gas Supply Related Deferrals:</u>								
13	Spot Gas Variance Account	179-107	-	-	-	-	-	-
14	Unabsorbed Demand Cost (UDC) Variance Account	179-108	(3,908)	(762)	(168)	-	-	(4,839)
15	Upstream Transportation Optimization	179-131	320	44	21	-	92	478
16	Total North Gas Supply Related Deferrals		<u>(3,588)</u>	<u>(718)</u>	<u>(147)</u>	<u>-</u>	<u>92</u>	<u>(4,361)</u>
<u>Storage Related Deferrals:</u>								
17	Short-Term Storage and Other Balancing Services (1)	179-70	493	139	53	-	-	685
18	Total North Deferral Account Disposition (Line 22 + Line 23)		<u>(3,095)</u>	<u>(579)</u>	<u>(94)</u>	<u>-</u>	<u>92</u>	<u>(3,676)</u>

Notes:

(1) Excludes allocation to Rate 20/100 bundled storage service.

ENBRIDGE GAS INC.
 Union Rate Zones
 Unit Rates for One-Time Adjustment - Delivery
2021 Deferral Account Disposition

Line No.	Particulars	Rate Class	2021 Deferral Balances (\$000's) (a)	2021 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a + b)	2021 Actual Volume (10 ³ m ³) (d)	Unit Rate (cents/m ³) (e) = (c / d) * 100
<u>Union North</u>							
1	Small Volume General Service	01	3,877	-	3,877	929,941	0.4169
2	Large Volume General Service	10	3,638	-	3,638	311,794	1.1667
3	Medium Volume Firm Service	20	(68)	-	(68)	637,600	(0.0106)
4	Large Volume High Load Factor	100	(152)	-	(152)	958,587	(0.0159)
5	Large Volume Interruptible	25	(24)	-	(24)	143,898	(0.0167)
<u>Union South</u>							
6	Small Volume General Service	M1	2,522	-	2,522	2,897,087	0.0870
7	Large Volume General Service	M2	5,686	-	5,686	1,113,864	0.5105
8	Firm Com/Ind Contract	M4	498	-	498	610,808	0.0815
9	Interruptible Com/Ind Contract	M5	(70)	-	(70)	63,511	(0.1108)
10	Special Large Volume Contract	M7	814	-	814	686,353	0.1186
11	Large Wholesale	M9	117	-	117	90,096	0.1295
12	Small Wholesale	M10	(0)	-	(0)	320	(0.0128)
13	Contract Carriage Service	T1	91	-	91	453,007	0.0202
14	Contract Carriage Service	T2	1,977	-	1,977	4,700,474	0.0420
15	Contract Carriage- Wholesale	T3	231	-	231	241,187	0.0958

ENBRIDGE GAS INC.
 Union Rate Zones
 Unit Rates for One-Time Adjustment - Gas Supply Commodity
2021 Deferral Account Disposition

Line No.	Particulars	Rate Class	2021 Deferral Balances (\$000's) (a)	2021 Earnings Sharing Mechanism (\$000's) (b)	Deferral Balance for Disposition (\$000's) (c) = (a + b)	2021 Actual Volume (10 ³ m ³) (d)	Unit Rate (cents/m ³) (e) = (c / d) * 100
1	Small Volume General Service	M1	9,215	-	9,215	2,728,007	0.3378
2	Large Volume General Service	M2	1,779	-	1,779	526,743	0.3378
3	Firm Com/Ind Contract	M4	190	-	190	56,304	0.3378
4	Interruptible Com/Ind Contract	M5	14	-	14	4,043	0.3378
5	Special Large Volume Contract	M7	108	-	108	31,987	0.3378
6	Large Wholesale	M9	54	-	54	15,903	0.3378
7	Small Wholesale	M10	1	-	1	320	0.3378

ENBRIDGE GAS INC.
 Union Rate Zones
 Unit Rates for One-Time Adjustment - Gas Supply Transportation and Bundled Storage
2021 Deferral Account Disposition

Line No.	Particulars	Rate Class	2021 Deferral Balances (\$000's)	2021 Earnings Sharing Mechanism (\$000's)	Deferral Balance for Disposition (\$000's)	2021 Actual Volume/Demand	Billing Units	Unit Volumetric/Demand Rate (cents/m ³)
			(a)	(b)	(c) = (a + b)	(d)		(e) = (c / d) * 100
<u>Gas Supply Transportation Charges</u>								
<u>Union North West</u>								
1	Small Volume General Service	01	(3,167)	-	(3,167)	262,912	10 ³ m ³	(1.2045)
2	Large Volume General Service	10	(581)	-	(581)	69,572	10 ³ m ³	(0.8354)
3	Medium Volume Firm Service	20	(87)	-	(87)	1,764	10 ³ m ³ /d	(4.9257)
4	Large Volume Interruptible	25	100	-	100	57,362	10 ³ m ³	0.1752
<u>Union North East</u>								
5	Small Volume General Service	01	(421)	-	(421)	667,029	10 ³ m ³	(0.0632)
6	Large Volume General Service	10	(137)	-	(137)	238,396	10 ³ m ³	(0.0575)
7	Medium Volume Firm Service	20	(60)	-	(60)	6,630	10 ³ m ³ /d	(0.8996)
8	Large Volume Interruptible	25	(8)	-	(8)	21,827	10 ³ m ³	(0.0382)
9	North T-Service Transportation from Dawn Base Service (\$/GJ)	20T/100T	84	-	84	264,264	GJ/d	0.320
<u>Storage (\$/GJ)</u>								
10	Bundled-T Storage Service	20T/100T	25	-	25	141,504	GJ/d	0.179

ENBRIDGE GAS INC.
 Union Rate Zones
 Storage and Transportation Service Amounts for Disposition
2021 Deferral Account Disposition

Line No.	Particulars (\$000's) (1)	Rate Class	2021 Deferral Balances (a)	2021 Earnings Sharing Mechanism (b)	Deferral Balance for Disposition (c) = (a + b)
1	Transportation	M12	7,541	-	7,541
2	Transportation of Locally Produced Gas	M13	35	-	35
3	Cross Franchise Transportation	C1	3,414	-	3,414
4	Storage and Transportation Services	M16	100	-	100
5	Transporation Service	M17	10	-	10

Notes:

(1)

Ex-franchise customer specific amounts determined using approved deferral account allocation methodologies.

ENBRIDGE GAS INC.
Union Rate Zones
Calculation of One-Time Adjustments for Typical General Service Customers

Line No.	Particulars	Deferral Unit Rate (cents/m ³) (a)	Volume (m ³) (1) (b)	Bill Impact (\$) (c) = (a x b) / 100
<u>Small Volume General Service</u>				
<u>Rate M1 - Union South</u>				
1	Delivery	0.0870	2,200	1.91
2	Commodity	0.3378	2,200	7.43
3	Sales Service Impact	0.4248		9.34
4	Direct Purchase Impact			1.91
<u>Rate 01 - Union North West</u>				
5	Delivery	0.4169	2,200	9.17
6	Commodity	-	2,200	-
7	Transportation	(1.2045)	2,200	(26.50)
8	Sales Service Impact	(0.7877)		(17.33)
9	Bundled-T (Direct Purchase) Impact			(17.33)
<u>Rate 01 - Union North East</u>				
10	Delivery	0.4169	2,200	9.17
11	Commodity	-	2,200	-
12	Transportation	(0.0632)	2,200	(1.39)
13	Sales Service Impact	0.3537		7.78
14	Bundled-T (Direct Purchase) Impact			7.78
<u>Large Volume General Service</u>				
<u>Rate M2 - Union South</u>				
15	Delivery	0.5105	73,000	372.65
16	Commodity	0.3378	73,000	246.60
17	Sales Service Impact	0.8483		619.25
18	Direct Purchase Impact			372.65
<u>Rate 10 - Union North West</u>				
19	Delivery	1.1667	93,000	1,085.06
20	Commodity	-	93,000	-
21	Transportation	(0.8354)	93,000	(776.97)
22	Sales Service Impact	0.3313		308.09
23	Bundled-T (Direct Purchase) Impact			308.09
<u>Rate 10 - Union North East</u>				
24	Delivery	1.1667	93,000	1,085.06
25	Commodity	-	93,000	-
26	Transportation	(0.0575)	93,000	(53.46)
27	Sales Service Impact	1.1092		1,031.60
28	Bundled-T (Direct Purchase) Impact			1,031.60

Notes:

(1) Average consumption, per customer, for the period January 1, 2021 to December 31, 2021.

ENBRIDGE GAS INC.
Union Rate Zones
Calculation of One-Time Adjustments for Typical Small and Large Customers

Line No.	Particulars	Deferral Unit Rate (cents/m ³) (a)	Billing Units (m ³) (b)	Bill Impact (\$) (1) (c)
<u>Union North</u>				
<u>Small Rate 20 - Union North West</u>				
1	Delivery	(0.0106)	3,000,000	(318)
2	Transportation	(4.9257)	14,000	(8,275)
3	Sales Service Impact	(4.9363)		(8,593)
4	Bundled-T (Direct Purchase) Impact			(8,593)
<u>Large Rate 20 - Union North West</u>				
5	Delivery	(0.0106)	15,000,000	(1,590)
6	Transportation	(4.9257)	60,000	(35,465)
7	Sales Service Impact	(4.9363)		(37,055)
8	Bundled-T (Direct Purchase) Impact			(37,055)
<u>Small Rate 20 - Union North East</u>				
9	Delivery	(0.0106)	3,000,000	(318)
10	Transportation	(0.8996)	14,000	(1,511)
11	Sales Service Impact	(0.9102)		(1,829)
12	Bundled-T (Direct Purchase) Impact			(1,829)
<u>Large Rate 20 - Union North East</u>				
13	Delivery	(0.0106)	15,000,000	(1,590)
14	Transportation	(0.8996)	60,000	(6,477)
15	Sales Service Impact	(0.9102)		(8,067)
16	Bundled-T (Direct Purchase) Impact			(8,067)
<u>Average Rate 25 - Union North West</u>				
17	Delivery	(0.0167)	2,275,000	(380)
18	Transportation	0.1752	2,275,000	3,985
19	Sales Service Impact	0.1585		3,605
20	Bundled-T (Direct Purchase) Impact			3,605
<u>Average Rate 25 - Union North East</u>				
21	Delivery	(0.0167)	2,275,000	(380)
22	Transportation	(0.0382)	2,275,000	(869)
23	Sales Service Impact	(0.0549)		(1,249)
24	Bundled-T (Direct Purchase) Impact			(1,249)
<u>Small Rate 100</u>				
25	T-Service (Direct Purchase) Impact	(0.0159)	27,000,000	(4,286)
<u>Large Rate 100</u>				
26	T-Service (Direct Purchase) Impact	(0.0159)	240,000,000	(38,094)
<u>Union South</u>				
<u>Small Rate M4</u>				
27	Delivery	0.0815	875,000	713
28	Commodity	0.3378	875,000	2,956
29	Sales Service Impact	0.4193		3,669
30	Direct Purchase Impact			713
<u>Large Rate M4</u>				
31	Delivery	0.0815	12,000,000	9,779
32	Commodity	0.3378	12,000,000	40,536
33	Sales Service Impact	0.4193		50,315
34	Direct Purchase Impact			9,779

Notes:(1) Transportation bill impacts based on monthly demand (m³/d).

ENBRIDGE GAS INC.
Union Rate Zones
Calculation of One-Time Adjustments for Typical Small and Large Customers

Line No.	Particulars	Deferral Unit Rate (cents/m ³) (b)	Billing Units (m ³) (c)	Bill Impact (\$) (1) (d)
<u>Union South (continued)</u>				
<u>Small Rate M5 Interruptible</u>				
1	Delivery	(0.1108)	825,000	(914)
2	Commodity	0.3378	825,000	2,787
3	Sales Service Impact	0.2270		1,873
4	Direct Purchase Impact			(914)
<u>Large Rate M5 Interruptible</u>				
5	Delivery	(0.1108)	6,500,000	(7,200)
6	Commodity	0.3378	6,500,000	21,957
7	Sales Service Impact	0.2270		14,757
8	Direct Purchase Impact			(7,200)
<u>Small Rate M7</u>				
9	Delivery	0.1186	36,000,000	42,695
10	Commodity	0.3378	36,000,000	121,609
11	Sales Service Impact	0.4564		164,304
12	Direct Purchase Impact			42,695
<u>Large Rate M7</u>				
13	Delivery	0.1186	52,000,000	61,671
14	Commodity	0.3378	52,000,000	175,658
15	Sales Service Impact	0.4564		237,329
16	Direct Purchase Impact			61,671
<u>Small Rate M9</u>				
17	Delivery	0.1295	6,950,000	9,002
18	Commodity	0.3378	6,950,000	23,477
19	Sales Service Impact	0.4673		32,480
20	Direct Purchase Impact			9,002
<u>Large Rate M9</u>				
21	Delivery	0.1295	20,178,000	26,136
22	Commodity	0.3378	20,178,000	68,162
23	Sales Service Impact	0.4673		94,298
24	Direct Purchase Impact			26,136
<u>Rate M10</u>				
25	Delivery	(0.0128)	94,500	(12)
26	Commodity	0.3378	94,500	319
27	Sales Service Impact	0.3250		307
28	Direct Purchase Impact			(12)
<u>Small Rate T1</u>				
29	Direct Purchase Impact	0.0202	7,537,000	1,521
<u>Average Rate T1</u>				
30	Direct Purchase Impact	0.0202	11,565,938	2,334
<u>Large Rate T1</u>				
31	Direct Purchase Impact	0.0202	25,624,080	5,171
<u>Small Rate T2</u>				
32	Direct Purchase Impact	0.0420	59,256,000	24,917
<u>Average Rate T2</u>				
33	Direct Purchase Impact	0.0420	197,789,850	83,169
<u>Large Rate T2</u>				
34	Direct Purchase Impact	0.0420	370,089,000	155,620
<u>Large Rate T3</u>				
35	Direct Purchase Impact	0.0958	272,712,000	261,162

Notes:(1) Transportation bill impacts based on monthly demand (m³/d).

2021 SCORECARD RESULTS – ENBRIDGE GAS

1. The purpose of the scorecard is to measure and monitor performance over the deferred rebasing period. The scorecard is produced annually, with 2021 being the third presentation of the scorecard for the amalgamated utility. Within EB-2021-1049, the OEB found that scorecard provides valuable information during the deferral rebasing period and accepted Enbridge Gas's plans to improve the results of the two metrics that did not meet the performance standard in 2020. The OEB found that the 2024 rebasing proceeding is the appropriate time to review historical performance trends and consider customer implications prior to making any adjustments to the performance scorecard.
2. In 2019 and 2020 there was a positive performance trend for all but two metrics: Time to Reschedule a Missed Appointment (TRMA) and the Meter Reading Performance Metric (MRPM). In 2021 Enbridge Gas continued to demonstrate the positive performance trend for 16 out of 20 metrics. There continued to be challenges meeting the performance standard for TRMA and MRPM and in addition, Enbridge Gas did not meet the performance standard for Call Answering Service Levels (CASL) and Abandon Rate. The challenges meeting the target for two additional metrics is viewed as an anomaly as historically targets are exceeded for the metrics. Enbridge Gas continues to work to improve the results of all scorecard metrics through ongoing reporting of results, identifying the root cause for variances, and implementing initiatives targeting areas where improvement can be made.
3. Three of the four metrics that are below performance standard for 2021 were impacted by COVID-19 pandemic restrictions and the amalgamation of utility systems and processes. Enbridge Gas has developed plans and strategies to improve results and performance in each area.

4. The TRMA metric tracks the percentage of customers contacted to reschedule the work within two hours of the end of the original appointment time. The annual standard for TRMA is 100% and Enbridge Gas achieved 97.0% in 2021. This is consistent with prior year results which were 97.0% in 2019 and 97.3% in 2020. Efforts toward meeting the TRMA target of 100% are ongoing. A cross functional team meets regularly to review performance on this metric, to address issues, and to re-inforce training when necessary. Regional management teams meet monthly to drive performance as well. While Enbridge Gas acknowledges that promptly rescheduling missed appointments is an important part of achieving the SQR and customer service, attainment of a perfect 100% is not always possible. TRMA is the only Scorecard metric with a target of 100%; and does not allow for human error.
5. The MRPM represents the number of meters with no read for four consecutive months or more divided by the total number of active meters to be read. The target for the metric is 0.5% and Enbridge Gas achieved a level of 5.0% in 2021. The result for 2019 was 0.7% and 4.4% in 2020. Enbridge Gas has faced challenges meeting the target since 2019 for several reasons, including the decision of a key meter reading vendor to no longer provide meter reading service resulting in the need to onboard a new vendor. Since March 2020, the Covid pandemic has presented additional challenges including closed businesses, increased customer sensitivity to contact with meter readers, and access issues during periods of lockdown. In addition, extreme weather events such as freezing rain, flooding, and heavy snowfall limited the ability to travel to properties and read meters. The new vendor was also still transitioning and learning the business in addition to experiencing ongoing staffing challenges including resourcing issues and illness/absence due to Public Health isolation/quartine requirements. These challenges continued into 2021. Despite the ongoing efforts of Enbridge Gas to improve the performance standard, the MRPM target of 0.5% will be challenging due to sheer size and geographic

reach, especially when complicated by variables such as extreme weather. Enbridge Gas continues to work to meet the performance metric through a mitigation plan that includes various methods to attain reads including: meter reading partners increasing hiring, working additional hours and knocking on doors to obtain reads; customer outreach through social media, monthly emails and texts to customers asking them to submit a reading; requesting a reading from customers when they contact the call centre; and engaging the Enbridge Gas Quality Assurance team to review consecutive estimates.

6. The CASL metric measures the number of calls reaching the general inquiry number answered within 30 seconds divided by the number of calls received. The yearly performance standard for Call Answering Service Level is 75% with a minimum monthly standard of 40%. The 2021 result was 64.3%. The 2021 result is viewed as an anomaly and not consistent with historical performance of 79.0% in 2019 and 75.2% in 2020. In July 2021, EGI harmonized the two legacy utilities Customer Information Systems (CIS), which involved moving 1.6M customers and their associated data from one CIS system to the other. In addition, the telephony system (IVR) was changed. Several changes, both pre and post integration, resulted in an increase in call volumes. Calls ranged from questions about passwords and account numbers to complex and extended calls. Covid has also impacted the contact centres due to increased illness and absence. To improve performance on the CASL metric, Enbridge Gas has identified and implemented several initiatives including recruiting temporary employees to assist with high call volumes, a post integration review of telephony (IVR) to ensure customer experience and decrease wait times, and a review of contact centre and billing processes. Enbridge Gas is committed to providing excellent customer service to all customers and in doing so meeting the performance standard of answering 75% of calls within 30 seconds.

7. The measure Abandon Rate is the percentage of callers who hang up while waiting for a live operator. The annual standard is not to exceed 10%. The 2021 result was 16.0%. As with the CASL metric, the 2021 result is viewed as an anomaly with historical performance of 2.5% in 2019 and 5.4% in 2020, exceeding the performance standard. The Abandon Rate metric was also impacted by the integration of systems in 2021 and the Covid pandemic. The increase in call volumes and staffing issues due to illness resulted in an increase in wait times driving the increased abandon rate. The mitigation plans in place for CASL will assist with reducing the abandoned call metric to less than 10%.
8. The OEB has found that Enbridge Gas's 2024 rebasing proceeding is the appropriate time to review historical performance trends and consider the customer implications before making any adjustments to the performance scorecard.¹ Enbridge Gas will be proposing changes to the scorecard in that proceeding to the TRMA metric and the MRPM.

¹ EB-2021-0149, OEB Decision and Order, Enbridge Gas – 2020 DVA & Earning Sharing Proceeding (January 27, 2022), page 12.

EGI SCORECARD 2021

Performance Measure	Target	Actual	Actual	Actual
		2021	2020	2019
# CUSTOMER FOCUS (Service Quality & Customer Satisfaction)				
1 Reconnection Response Time (# of days to reconnect a customer) (# of reconnections completed within 2 business days/# of reconnections completed)	85.0%	96.9%	98.9%	98.1%
2 Scheduled appointments met on time (appointments met within designated time period) (# of appointments met within 4hrs of the scheduled date/# of appointments scheduled in the month)	85.0%	94.5%	98.8%	98.5%
3 Telephone calls answered on time (call answering service level) (# of calls answered within 30 seconds / # of calls received)	75.0%	64.3%	75.2%	79.0%
4 Customer Complaint Written Response (# of days to provide a written response) # of complaints requiring response within 10 days / # of complaints requiring a written response	80.0%	100.0%	100.0%	100.0%
5 Billing accuracy 'The requirement states that utilities should complete manual checks of their bills to verify data when a meter read demonstrates excessively high or low usage.'		384,858 manual checks completed as per QAP	427,524 manual checks completed as per QAP	429,386 manual checks completed as per QAP
6 Abandon Rate (# of calls abandon rate) (# of calls abandoned while waiting for a live agent / # of calls requesting to speak to a live agent)	10.0%	16.0%	5.4%	2.5%
7 Time to Reschedule Missed Appointments (% of rescheduled work within 2 hours of the end of the original appointment time)	100.0%	97.0%	97.3%	97.0%
OPERATIONAL EFFECTIVENESS (Safety, System Reliability, Asset Management & Cost Control)				
8 Meter Reading Performance # of meters with no read for 4 consecutive months / # of active meters to be read	0.5%	5.0%	4.4%	0.7%
9 % of Emergency Calls Responded within One Hour (# of emergency calls responded within 60 minutes / # of emergency calls)	90.0%	95.2%	96.7%	96.7%
10 Compression Reliability % reliable for transmission compression		99.7%	99.7%	99.9%
11 Damages per 1000 locate requests		1.95	2.22	1.97
12 Total Cost per Customer (\$ / Customer)		643.9	658.2	653.6
13 Total Cost per km of Distribution Pipe (\$ / km of Distribution Pipe)		16639.6	16928.5	16735.4
PUBLIC POLICY RESPONSIVENESS (Conservation & Demand Management & Connection of Renewable Generation)				
14 Total Cumulative Cubic Meters of Natural Gas Saved (Net) (Millions)				2075.9
FINANCIAL PERFORMANCE (Financial Ratios)				
15 Current Ratio (Current Assets / Current Liabilities)		0.71	0.66	0.75
16 Debt Ratio (Total Debt / Total Assets)		0.41	0.40	0.40
17 Debt to Equity Ratio (Total Debt / Shareholders' Equity)		1.06	1.01	0.98
18 Interest Coverage (EBIT / Interest Charges)		2.55	2.34	2.53
19 Financial Statement Return on Assets (Net Income / Total Assets)		2.07%	1.97%	2.25%
20 Financial Statement Return on Equity (Net Income / Shareholders' Equity)		5.32%	4.96%	5.56%

INTEGRATED RESOURCE PLANNING

2021 Annual Report

Enbridge Gas Inc.
May 31, 2022

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1. Introduction:

This inaugural Enbridge Gas Inc. (“Enbridge Gas”) 2021 IRP Annual Report (the “Report”) encompasses the period from July 22, 2021, through December 31, 2021.¹ Where appropriate, Enbridge Gas has included information on relevant IRP-related activities subsequent to the end of the 2021. This Report has been filed per the Ontario Energy Board’s (“OEB”) Integrated Resource Planning (“IRP”) Decision and Order (dated July 22, 2021) establishing an IRP Framework for Enbridge Gas (the “Framework”), where the OEB directed:

“Enbridge Gas shall file an Annual IRP Report with the OEB as part of its annual Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application, the proceeding in which it may seek disposition of balances in the IRP Costs deferral accounts.

The OEB does not intend to approve the annual IRP report, but it could impact the OEB’s findings on the disposition of amounts in the IRP Costs deferral accounts or inform future proceedings.

The annual IRP report and the report from the IRP Technical Working Group are to be filed for information regardless of whether Enbridge Gas is seeking approval to clear any balances in the IRP Costs deferral accounts. The annual IRP report should include the following information:

- A summary of IRP stakeholding activities from the past year
- A summary of IRP engagement or consultation activities with Indigenous peoples
- Updates on IRP pilot projects underway
- Updates on incorporating IRP into asset management planning
- Updates on status of potential IRP Plans
- Updates on status of approved IRP Plans, including details of adjustments made by Enbridge Gas
- Annual and cumulative summaries of actual peak demand reductions/energy savings generated by each IRP Plan to-date, including comparisons to the initial forecast reduction/energy savings and the actual amount of expenditure on each IRP Plan to-date
- The most recent results of Enbridge Gas’s IRP Assessment Process for system needs, including reporting on those system needs where a negative binary screening or technical/economic evaluation resulted in no further assessment of IRPAs
- A summary of best available information on demand-side IRPAs, including types of IRPAs, estimates of cost, peak demand savings, status in Ontario, potential role and relevance to Enbridge Gas’s system, and learnings from pilot projects and other jurisdictions
- Efforts taken to explore the use of interruptible rates for meeting system needs, including how customers have been provided the opportunity to consider this option
- Any other IRP-related matters established by the OEB.”²

¹ Future IRP annual reports will include the full calendar year.

² EB-2020-0091, Decision and Order, Appendix A, p. 22

2. IRP Integration

The establishment of the Framework has allowed Enbridge Gas to commence formally integrating IRP into its existing planning practices. Accordingly, Enbridge Gas reviewed its distribution and transmission planning practices and implemented changes including, implementation of the OEB approved IRP assessment process, and stakeholder engagement activities. In addition, Enbridge Gas is expanding existing processes to enable the effective evaluation and implementation of IRP alternative³ (“IRPA”) pilot and non-pilot projects.

In support of these integration activities Enbridge Gas is guided by the Guiding Principles established by the OEB in the IRP Decision:

- “Reliability and safety – In considering IRPAs as part of system planning processes, Enbridge Gas’s system design principles cannot be compromised, and the reliable and safe delivery of firm contracted peak period natural gas volumes to Enbridge Gas’s customers must remain of paramount importance.
- Cost-effectiveness – IRPAs must be cost-effective (competitive) compared to traditional Facility Alternatives⁴ and other IRPAs, including taking into account impacts on Enbridge Gas customers.
- Public policy – IRP will be considered in a manner to ensure that it is supportive of and aligned with public policy, and in particular the OEB’s statutory objectives for the natural gas sector.
- Optimized scoping – Recognizing that reviewing IRPAs for every forecast infrastructure project would be extremely time intensive, binary screening should be undertaken, to confirm which forecast need(s) should undergo evaluation of IRPAs, and to ensure a focus at the outset on efficient and effective IRPA investment.
- Risk management – Economic risks associated with both Facility Alternatives and IRPAs in meeting system needs are evaluated and appropriately mitigated. Risks and rewards are allocated appropriately between Enbridge Gas and its customers.”⁵

More detailed discussion of the steps towards IRP integration taken by Enbridge Gas follow:

Stakeholder Engagement

Stakeholder engagement activities are ongoing. Following the completion and filing of the Company’s 2023-2032 Asset Management Plan (“AMP”) in the fall of 2022, Enbridge Gas will commence IRP-related regional and geo-targeted stakeholder engagement. Stakeholder feedback received through these engagement activities will be reviewed and responded to (where appropriate) and will inform the Company’s consideration and development of potential IRP projects as well as future AMPs. For

³ The types of eligible alternatives are described in EB-2020-0091, Decision and Order, Section 7

⁴ Per the IRP Framework (EB-2020-0091, Appendix A, p.4), Facility Alternative is “synonymous with a traditional or conventional facility project”

⁵ EB-2020-0091, Decision and Order, p.27-28

a summation of the stakeholder engagement activities undertaken in 2021 see Section 4: Stakeholder and Indigenous Engagement Update.

Forecasting and Planning

Enbridge Gas regularly updates its long-term peak demand forecast and AMP (both comprehensive and limited updates depending upon timing and purpose). The objective of peak demand forecasting, and planning is to amass data, input, and insights to identify potential future system needs and constraints as well as their magnitude and timing. Early identification of future system needs and constraints is critical as the Company is obligated to reliably serve the firm contracted peak period demands of its customers.

A comprehensive discussion of Enbridge Gas' forecast and planning processes and any changes that have been made as a result of the establishment and implementation of the Framework will be filed in the Company's 2024 Rate Rebasement application in fall of 2022.

Need Identification

Following the completion of the forecasting process, Enbridge Gas compares the future forecast to the capacities of its existing facilities. A new system need/constraint is identified when Enbridge Gas determines that its current facilities cannot balance the new peak demand forecast with existing system facilities safely and reliably. When a constraint is initially identified, Enbridge Gas will verify its model with existing actual physical data, including pressure and temperature compensated consumption or flow, to ensure that the constraint is properly forecasted.

Baseline Facility Setting

Following the identification of a system need, Enbridge Gas develops the baseline facility that is required to meet the system need, absent any non-facility or IRPAs. It is necessary to understand this baseline facility as early as possible, as it provides a helpful point of comparison for other alternatives including IRPAs.

Binary Screening

Following the identification of a system need, Enbridge Gas will review the need relative to the Binary Screening Criteria established by the OEB in the Framework. If the system need passes Binary Screening, Enbridge Gas will then review and assess IRPAs or combinations of IRPAs that could meet the capacity requirements of the system need.

Binary Screening includes:

- **“Emergent Safety Issues:** If an identified system constraint/need is determined to require a facility project for Enbridge Gas to offer safe and reliable service or to meet an applicable law, an IRP evaluation is not required. An example of such a system constraint/need, and an emergent safety issue, would be if an existing pipeline sustained unanticipated damage and

- needed to be replaced as quickly as possible to ensure the safety of local communities and Enbridge Gas's broader transmission and distribution systems. Longer-term safety related system constraints/needs may be appropriate for an IRP Plan and should be considered on a case-by-case basis.
- **Timing:** If an identified system constraint/need must be met in under three years, an IRP Plan could not likely be implemented and its ability to resolve the identified system constraint could not be verified in time. Therefore, an IRP evaluation is not required. Exceptions to this criterion could include consideration of supply-side IRPAs and bridging or market-based alternatives where such IRPAs can address a more imminent need.
 - **Customer-Specific Builds:** If an identified system need has been underpinned by a specific customer's (or group of customers') clear request for a facility project and either the choice to pay a Contribution in Aid of Construction or to contract for long-term firm services delivered by such facilities, then an IRP evaluation is not required.
 - **Community Expansion and Economic Development:** If a facility project has been driven by government legislation or policy with related funding explicitly aimed at delivering natural gas into communities, then an IRP evaluation is not required.
 - **Pipeline Replacement and Relocation Projects:** If a facility project is being advanced for replacement or relocation of a pipeline and the cost is less than the minimum project cost that would necessitate a Leave to Construct approval [\$2 million], then an IRP evaluation is not required.”⁶

IRPA Technical Feasibility Assessment

For all system needs that pass Binary Screening, Enbridge Gas will assess which IRPAs could technically be used to defer, avoid or reduce the need/constraint relative to facility infrastructure. In other words, Enbridge Gas will ensure that the IRPA can serve the identified need prior to evaluating the IRPA on an economic basis.

Economic Evaluation

Enbridge Gas will test and compare the technical feasibility of both the baseline facility and any IRPAs on an economic basis using the OEB-approved DCF+ cost test. In the Decision, the OEB determined that Enbridge Gas has “some discretion in selecting an alternative to meet a system need that does not have the highest score on phase 1 of the DCF+ test, as there may be considerations or factors that are important in phase 2 and 3 or are difficult to quantify.”⁷ The IRPA, or combination of IRPAs, that can technically and economically meet the system need and satisfy the Framework's Guiding Principles, will be incorporated into the AMP for inclusion into its broader planning activities, stakeholder touchpoints and for implementation at the appropriate time.

⁶ EB-2020-0091, Decision and Order, p.47-49

⁷ IBID, p.56

Project Development

Following the identification of IRPAs and the inclusion in the AMP, Enbridge Gas will begin work to develop and subsequently file an IRP Plan application and supporting evidence with the OEB for approval (where appropriate). Enbridge Gas will ensure that all details related to IRPAs and the underlying system needs that they are intended to address will be fully refined in this step and will continue to monitor the need as part of its planning activities until such time that the project is implemented.

IRPA Project Implementation

Enbridge Gas' IRP Plan applications will:

- detail anticipated savings or peak period impacts (on an hourly basis for distribution system assets and on a daily basis for transmission and storage system assets) together with the costs and ownership/operationalization arrangements proposed for IRPA investments;
- seek approval to spend and subsequently recover costs associated with investing in an IRPA(s);
- include additional applicable details for IRPAs such as design, administration, implementation, monitoring and reporting.

As is the case with traditional applications to the OEB seeking an Order of the Board for Leave to Construct facilities LTC applications, Enbridge Gas intends to consult with impacted landowners (where applicable), municipal governments, First Nations, Indigenous groups, and other affected stakeholders prior to filing its IRP Plan application with the OEB.

Monitoring and Reporting

Following implementation of approved IRPAs, the Company will carefully monitor their effectiveness in meeting the identified system need to ensure system constraints are being sufficiently resolved. Enbridge Gas will provide an annual report of IRPA effectiveness to the OEB as part of either its annual Rates application or Non-Commodity Deferral Account Clearance and Earnings Sharing Mechanism application, or as otherwise directed by the OEB. If any IRPA is not meeting the identified system need for which it was implemented, Enbridge Gas will propose corrective action in its report which may include, but not be limited to, proposals to implement additional IRPAs or new facilities.

3. IRP Pilot Projects

The OEB Directed Enbridge Gas to “select and deploy”⁸ two IRP pilot projects by the end of 2022.

⁸ EB-2020-0091, Decision and Order, p.94

The concept of developing and implementing two IRP pilots received universal support during the IRP proceeding.⁹ Parties recognized that these IRP pilots would be an effective approach to better understand and evaluate how IRP can be implemented to avoid, delay or reduce facility projects required to meet the identified need.

The Technical Working Group was created to, among other matters, provide input and insight into the selection and development of the IRP pilots.

At the time of writing this Report the specific pilot projects and associated IRPAs have not been determined.

Enbridge Gas plans to file the two IRP pilot applications by December 31, 2022 for OEB review and implementation based on the following schedule:

June – August 2022	Review potential IRP Pilot projects
September	Select two pilot projects
September - December 2022	Develop IRP pilot evidence and applications
January – April 2023	OEB Procedural process
May 2023	IRP pilot project implementation

4. IRP Stakeholder and Indigenous Engagement Update

As part of the Decision in the IRP Framework proceeding “the OEB has determined that the components of Enbridge Gas’s proposed Stakeholder Engagement Process will provide valuable input into Enbridge Gas’s IRP activities and shall be incorporated in the IRP Framework. The OEB also directs the establishment of a website by Enbridge Gas to facilitate the broad sharing of information on IRP stakeholdering efforts.”¹⁰

IRP Website

In December 2021, an Enbridge Gas IRP website went live.¹¹ This is the initial phase of the website and allows for individuals to identify which regions are of interest and to register for any stakeholder engagement that will occur within the region(s) of interest. Individuals are welcome to register for as many regional engagement activities as they feel appropriate. By registering their emails,

⁹ EB-2020-0091, Decision and Order, p.90

¹⁰ IBID, p. 66

¹¹ <https://www.enbridgegas.com/sustainability/regional-planning-engagement>

individuals give permission to receive emails from Enbridge Gas in the future thus meeting the requirements of Canada's Anti-Spam Legislation (CASL).

The next phase of the website design is underway. This next phase will be available when a pilot project or IRP Plan is developed, and it will include additional regional functionality. The next phase will also allow interested individuals to sign up for webinars, in-person engagements, and to receive information about any presentations and/or responses to stakeholder feedback that is posted. It is anticipated that the second phase of the website design will be available prior to the launch of the first pilot project or IRP Plan.

Enbridge Gas has also implemented an internal working group that includes representation from Enbridge Gas' Municipal, Stakeholder and Community Engagement Group, Community and Indigenous Engagement and the IRP group to ensure that the internal resourcing and IT infrastructure developed to conduct, gather, and respond to the ongoing stakeholder engagement efforts in support of IRP will be sufficient to inform future planning efforts. This internal working group brings extensive stakeholder engagement experience and insight to the future IRP Stakeholder engagement plans. Enbridge Gas' various stakeholder engagement groups support efficient project execution with engagement activities in the field with project-area residents, local governments, and local organizations, in support of project objectives and business goals. They also regularly engage with key partners, including local municipal officials, business leaders, key landowners, emergency responders, and non-government organizations. Enbridge Gas anticipates engagement with Indigenous groups to commence in 2022 as IRP Plans are developed.

5. IRP Plan Update

Enbridge Gas has not developed or filed any IRP Plans with the OEB that can be reported at this time. Please see Appendix B for a list of projects that Enbridge Gas has completed the binary screening process following the OEB's IRP Decision.

6. Asset Management Plan (AMP) Update

The IRP Decision indicated that "for this first-generation IRP Framework, the OEB finds the process proposed by Enbridge Gas to identify system constraints or needs is acceptable. Recording potential system needs/constraints up to ten years in the future in the AMP will allow time for a detailed examination of IRPAs. The OEB agrees with Enbridge Gas's proposal that the first version of the AMP reflecting this updated process be filed in Fall 2022."¹²

¹² EB-2020-0091, Decision and Order, p.42

Enbridge Gas will file the 2023-2032 AMP in Fall 2022 with the 2024 Rate Rebasing application. The AMP will include the binary screening results for all facility projects, greater than \$2 million, as noted in the IRP Assessment process description above. In addition, the AMP will include IRP assessment information for the projects, including IRPAs, where possible.

7. Integrated Resource Planning Alternatives Update

Discussion during the IRP regulatory proceeding included the request by some parties to have available a listing or menu of IRPAs being considered by Enbridge Gas. The OEB concluded that a “document on best available information for demand-side alternatives would promote more timely development of IRP Plans and directs Enbridge Gas to include a listing in its annual IRP Report.”¹³

Appendix C lists the preliminary IRPAs and includes information on these specific IRPAs as suggested by OEB Staff including “types of IRPAs, estimates of cost, peak demand savings, status in Ontario, potential role and relevance to Enbridge Gas’s system, and learnings from pilot projects and other jurisdictions.”¹⁴ Enbridge Gas recognizes that this IRPA information is preliminary and will become more refined over time as the Company becomes more familiar with the actual impacts of these IRPAs on system peak demands and with the inclusion of more granular meter reading through an Automated Metering Infrastructure (AMI) application. Enbridge Gas also anticipates that the IRP pilot projects will provide further information allowing for the refinement and updating of the impacts of some of the IRPAs listed.

8. Technical Working Group Summary

The OEB’s July 22, 2021, Decision further instructed the OEB to establish an IRP Technical Working Group (TWG) led by OEB staff, to provide input on IRP issues that will be of value to both Enbridge Gas in implementing IRP, and to the OEB in its oversight of the IRP Framework.

The inaugural meeting for the IRP TWG was held on Tuesday January 18, 2022. Any updates or summaries of IRP TWG meetings held in 2022 will be included in and reported on in the 2022 IRP Annual Report. All documents and presentations with respect to the IRP Technical working group can be found on the OEB web site under proceeding EB-2021-0246.¹⁵

The Report of the Technical Working Group is included as Appendix D.

¹³ EB-2020-0091, Decision and Order, p.36

¹⁴ IBID, p.34

¹⁵ <https://www.oeb.ca/consultations-and-projects/policy-initiatives-and-consultations/natural-gas-integrated-resource>

9. Interruptible Rates Update

The use of interruptible rates as an IRPA was reviewed as part of the IRP Framework proceeding. The discussion centered around a few key issues: “Customers on interruptible rates pay a lower rate in exchange for the ability of Enbridge Gas to curtail delivery if capacity is not available on the system. Interruptible volumes are not included in Enbridge Gas’s design day assumptions. Therefore, increased use of interruptible rates could potentially reduce the amount of firm peak demand Enbridge Gas is obligated to serve, helping address a system need. For this reason, Enbridge Gas indicated that it does consider interruptible rates to be a type of IRPA. Enbridge Gas already offers interruptible rates to its Contract Rate customers (larger commercial, institutional and industrial customers). However, Enbridge Gas noted that customers have been moving away from interruptible rates as they value certainty of supply over cost reduction.”¹⁶

In response Enbridge Gas indicated that it would “investigate the drivers for recent declines in the use of interruptible services and could potentially file revised interruptible and firm seasonal services/rates to make them more attractive to customers as part of its 2024 rebasing application.”¹⁷

The OEB determined that “the impact of interruptible rates to meet a system need/constraint should be considered in an IRP Plan in combination with demand-side or supply-side alternatives.”¹⁸

Enbridge Gas will file an interruptible rates study as part of its Rate Rebasing application in fall of 2022.

10. DCF+ Review

As part of the IRP Framework Decision the OEB found that “the OEB accepts the categories of benefits and costs proposed by Enbridge Gas for the three phases of the DCF+ test (shown in Table 2) for the use of this test in the IRP Framework. The OEB recognizes that the DCF+ test could be improved to better identify and define the costs and benefits of Facility Alternatives and IRPAs and clarify how these costs and benefits should be considered within the DCF+ test. This could include expanding the inputs to recognize increasing carbon costs, the risk that a constraint remains unresolved, and impact on gas supply costs. The OEB directs Enbridge Gas to study improvements to the DCF+ test for IRP.”¹⁹

The OEB further recognized that “this test could be improved to better list and define the costs and benefits of facility projects and IRP Alternatives and clarify how these costs and benefits should be considered within the test. Enbridge Gas is expected to study improvements to the Discounted Cash Flow-plus test for IRP, in consultation with the IRP Technical Working Group that will be established

¹⁶ EB-2020-0091, Decision and Order, p,30

¹⁷ IBID, p. 30-31

¹⁸ IBID, p.35

¹⁹ IBID, p.56-57

as part of the IRP Framework and using IRP pilot projects as a testing ground. Enbridge Gas shall file an enhanced Discounted Cash Flow-plus test for approval as part of the first non-pilot IRP Plan.”²⁰

Enbridge Gas has begun the process of reviewing the DCF+ test approved by the OEB. Enbridge Gas will consult with the Technical Working Group on any proposed enhancements to the DCF+ test prior to filing this cost benefit analysis with the first IRP non-pilot application.

²⁰ EB-2020-0091, Decision and Order, p. 5-6

Appendix A: OEB IRP Direction

The table below provides Enbridge Gas' progress with respect to meeting the Directions as ordered by the OEB in the IRP Decision.

Direction Item	Reference in the Decision	Direction	Status
Interruptible rates	Section 7 p.35	The OEB directs Enbridge Gas to study its interruptible rates to determine how they might be modified to increase customer adoption of this alternative service.	In progress – will be included with Enbridge Gas Rebasing Application (2023-2032)
Documentation of demand side IRPAs	Section 7 p.36	The OEB concludes that a document on best available information for demand-side alternatives would promote more timely development of IRP Plans and directs Enbridge Gas to include a listing in its annual IRP Report. The OEB agrees with Enbridge Gas that supply-side alternatives require case-by-case examination and therefore are not required to be included in the listing.	Completed – preliminary list
Asset Management Plan	Section 8 p.42	The OEB directs that the AMP include information about Enbridge Gas' system needs. This includes providing the status of consideration of IRP Plans in regard to meeting system needs, the result of the binary screening, and details on the evaluation.	In progress – will be filed with the Enbridge Gas Rebasing Application
DCF+ test enhancement	Section 8 p.56-57	The OEB directs Enbridge Gas to study improvements to the DCF+ test for IRP and, as applicable, file an enhanced DCF+ test for approval as part of the first non-pilot IRP Plan.	In progress
IRP Website	Section 10 p.66	The OEB also directs the establishment of a website by Enbridge Gas to facilitate the broad sharing of information on IRP stakeholder engagement efforts.	Phase 1 – Completed Phase 2 – In progress

Technical Working Group	Section 10 p.67	Establishment of a TWG with the OEB directing that membership should include Enbridge Gas, OEB staff, independent experts, and experienced non-utility stakeholders	Completed
IRP Deferral accounts	Section 15 p.87	The OEB directs Enbridge Gas to prepare a Draft Accounting Order for the two IRP Costs deferral accounts, consistent with the direction in this decision.	Completed

Appendix B: Binary Screening Results

Appendix B: Binary Screening Results for Projects Filed							
OEB Proceeding Docket	Project Name	Customer Specific Build	Timing	Pipeline Replacement >\$2M	Emergent Safety Issue	Community Expansion & Economic Development	Binary Pass or Fail
EB-2022-0111	Bobcaygeon Community Expansion Project					Fail	Fail
EB-2022-0086	Dawn to Corunna Replacement Project		Fail				Fail
EB-2022-0088	Haldimand Shores Community Expansion Project					Fail	Fail
EB-2022-0003	NPS 20 Waterfront Relocation Project		Fail				Fail
EB-2020-0293	St. Laurent Ottawa North Replacement Project		Fail				Fail
EB-2021-0205	Greenstone Pipeline Project	Fail					Fail
EB-2021-0248	Coveny and Kimball-Colinville Well Drilling Project		Fail				Fail

Appendix C: Integrated Resource Planning Alternatives

Integrated Resource Planning Demand-Side Alternatives – Best Available Information

As per the IRP Decision, the IRP Annual Report is to include “a summary of best available information on demand-side IRPAs, including types of IRPAs, estimates of cost, peak demand savings, status in Ontario, potential role and relevance to Enbridge Gas’s system, and learnings from pilot projects and other jurisdictions”.²¹

Demand-side IRPAs

IRPA Name	Enhanced Targeted Energy Efficiency (ETEE)
ETEE IRPA Overview	
<p>Enhanced targeted energy efficiency (ETEE) programs focus on achieving necessary reductions in a specific geographical area to reduce peak period system demands. The mix of offerings and measures utilized in an ETEE program is dependent upon the scope of the facility investment project under consideration, customer characteristics in the specific project service area, past demand side management DSM participation etc. ETEE programs could include refining existing broad-based DSM offerings through enhanced incentives and targeted marketing or introducing new geo-targeted programs not offered through broad-based DSM.</p> <p>Broad-based DSM programs have been delivered throughout the Enbridge Gas service areas since 1993. The 2023-2027 DSM Plan (EB-2021-0002) is currently under consideration of the OEB to guide broad-based DSM programming over that time frame. As defined by the Ontario Energy Board in their DSM Letter, the objective of broad-based DSM is “assisting customers in making their homes and businesses more efficient in order to help better manage their energy bills”.²²</p> <p>Separately, Enbridge Gas proposes to undertake IRP pilots to review and understand the potential impacts of energy efficiency programs on peak period system demands within a geo-targeted area, and whether the impacts are significant enough to be considered an infrastructure alternative.</p> <p>Potential ETEE measures include those space heating equipment, water heating equipment and building envelope upgrades that could impact peak.</p>	

²¹ The IRP Alternatives do not include electricity-based alternatives per the OEB’s EB-2020-0091 Decision where it stated “The OEB has concluded that as part of this first-generation IRP Framework, it is not appropriate to provide funding to Enbridge Gas for electricity IRP Alternatives.” p.4

²² EB-2019-0003, OEB Letter Post-2020 Natural Gas Demand Side Management Framework (December 1, 2020), p. 2.

IRPA Peak Impacts
<p>Forecast peak impacts will be estimated on a case-by-case basis depending on the ETEE program.</p> <p>Enbridge Gas Inc. (EGI) worked with Posterity Group to build an end-use model of its service territory with the 2019 Achievable Potential Study (APS) being the starting point for the model creation. First, a mirror model of the APS was created and then several adjustments were made to better reflect EGI’s knowledge and experience of the Ontario DSM market, EGI’s current TRM assumptions and known changes to applicable standards. Then Posterity Group worked with EGI to develop peak factors which were added to the model so that enhanced targeted energy efficiency peak hour impacts estimates could be developed for each region, sector, segment and end use. Posterity Group and EGI plan to continue to evolve this model by refining assumptions and assessment methodologies to refine and improve forecasting of peak hourly flow reduction potential.</p>
IRPA Cost Details
<p>Costs will be determined on a case-by-case basis depending on the ETEE program.</p> <p>The Posterity model described above also included cost assumptions for ETEE programs. Posterity Group and EGI plan to continue to evolve this model by refining assumptions and assessment methodologies so it can be used to assess project specific costs for an ETEE program.</p>
EGI Deployment Strategy
<p>Which energy efficiency measures are chosen and what ETEE deployment strategy is undertaken will be dependent upon the scope of the facility investment project under consideration, customer characteristics in the specific project service area, past DSM participation etc.</p> <p>An IRP ETEE pilot project would provide insights that could guide the deployment strategy of a future IRP ETEE program, including to what degree Automated Metering Infrastructure (AMI) may be required to inform the objectives of the pilot.</p>
Learnings from Pilot Projects/Other Jurisdictions
<p>Enbridge Gas has engaged Guidehouse to undertake a jurisdictional review of ETEE (Enhanced Targeted Energy Efficiency) and DR (demand response) gas pilots implemented for the objective to defer or avoid infrastructure. Findings from the review are anticipated to inform potential pilots for natural gas IRP implementation.</p> <p>Enbridge Gas filed a Geo-Target Demand Side Management Case Study in EB-2020-0091 at Exhibit C, Appendix A. The objectives of the case study were:</p>

<p>1. Assessment of the impacts of geo-targeted DSM programs on reducing peak hour demand. 2. Assessment of the costs of geo-targeted DSM program implementation.</p> <p>The results from this case study only illustrate the impacts geo-targeted DSM had on the town of Ingleside and although informative and directional, the results cannot be generally applied due to the specific nature of customer composition.</p>	
IRPA Name	Demand Response (DR)
IRPA Overview	
<p>Natural Gas Demand Response aims to reduce demand by natural gas customers during peak periods. For residential and commercial customers, this is usually in the form of heating demand reduction via thermostat control or water heater temperature settings. For contract customers, this can be done through leveraging Interruptible Rates.</p>	
IRPA Peak Impacts	
<p>Peak impacts will be determined on a case-by-case basis depending on the DR program.</p>	
IRPA Cost Details	
<p>DR IRPA costs will be determined on a case-by-case basis depending on the DR program.</p>	
EGI Deployment Strategy	
<p>The deployment strategy will be determined on a case-by-case basis depending on the DR program. An IRP Demand Response pilot project would provide insights that could guide the deployment strategy of a future Demand Response program, including to what degree Automated Metering Infrastructure (AMI) may be required to inform the objectives of the pilot.</p>	
Learnings from Pilot Projects/Other Jurisdictions	
<p>Enbridge Gas has engaged Guidehouse to undertake a jurisdictional review of ETEE (Enhanced Targeted Energy Efficiency) and DR (demand response) gas pilots implemented for the objective to defer or avoid infrastructure. Findings from the review are anticipated to inform potential pilots for natural gas IRP implementation.</p>	

Appendix D: Technical Working Group Report

Review of Enbridge Gas Inc. 2021 Integrated Resource Planning (IRP) Annual Report and Update on IRP Working Group Activities

From: Integrated Resource Planning
Technical Working Group

June 9, 2022

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1. Introduction

An Integrated Resource Planning (IRP) Framework for Enbridge Gas was established by the OEB through its *July 22, 2021 Decision and Order* (the IRP Decision). The IRP Decision directed the OEB to establish an IRP Technical Working Group (Working Group) and required a report from the Working Group to the OEB (Working Group report) to be filed in the same proceeding in which Enbridge Gas's annual IRP report is filed. The IRP Decision indicated that the Working Group report should include any comments on Enbridge Gas's annual IRP report, including material concerns that remain unresolved within the Working Group, and may also describe other activities undertaken by the Working Group in the previous year.

This report has been prepared by OEB staff with input from all Working Group members, and approved by all Working Group members, as an accurate summary of the Working Group's activities.¹ Where views expressed in the report do not reflect the views of all members, this is clearly indicated.

2. Establishment and Initiation of Working Group

The IRP Decision instructed the OEB to establish a Working Group led by OEB staff, to provide input on IRP issues that will be of value to both Enbridge Gas in implementing IRP, and to the OEB in its oversight of the IRP Framework.

The IRP Decision further required the OEB to establish a terms of reference and select the membership for the Working Group. On October 19, 2021, the OEB issued a *letter* seeking nominations from individuals interested in participating on the Technical Working Group as non-utility members. The OEB selected seven non-utility members from the twenty nominations received, and announced the establishment and initial membership of the Working Group in a *letter* issued December 6, 2021. In addition to non-utility members, the Working Group includes

¹ The IRP Technical Working Group includes observers from the Independent Electricity System Operator and EPCOR Natural Gas LP. As noted in the Working Group's Terms of Reference, any materials authored by the IRP Working Group (including this report) should not be considered to represent the views of Working Group observers, or their organizations.

representatives from the OEB and Enbridge Gas, and observers from the Independent Electricity System Operator and EPCOR Natural Gas LP.

The current membership of the Working Group is shown below.

Table 1: IRP Working Group Membership

Name	Role
Michael Parkes	OEB staff representative (Working Group chair)
Stephanie Cheng	OEB staff representative
Chris Ripley	Enbridge Gas representative
Whitney Wong (replacing Amrit Kuner)	Enbridge Gas representative
Amber Crawford, Association of Municipalities of Ontario	Non-utility member
John Dikeos, ICF Consulting Canada Inc.	Non-utility member
Tamara Kuiken, DNV Inc.	Non-utility member
Cameron Leitch, EnWave Energy Corporation	Non-utility member
Chris Neme, Energy Futures Group	Non-utility member
Dwayne Quinn, DR Quinn & Associates Ltd.	Non-utility member
Jay Shepherd, Shepherd Rubenstein Professional Corporation	Non-utility member
Kenneth Poon, EPCOR Natural Gas LP	Observer
Steven Norrie, Independent Electricity System Operator	Observer

The inaugural meeting of the Working Group was held on January 18, 2022. Meetings have subsequently been held on a monthly basis, with five meetings completed as of the date of this report.

Meeting notes and meeting materials for IRP Working Group meetings are published on the OEB's website following meetings to allow stakeholders to follow the Working Group's

progress.² These materials can be found at: <https://www.oeb.ca/consultations-and-projects/policy-initiatives-and-consultations/natural-gas-integrated-resource>.

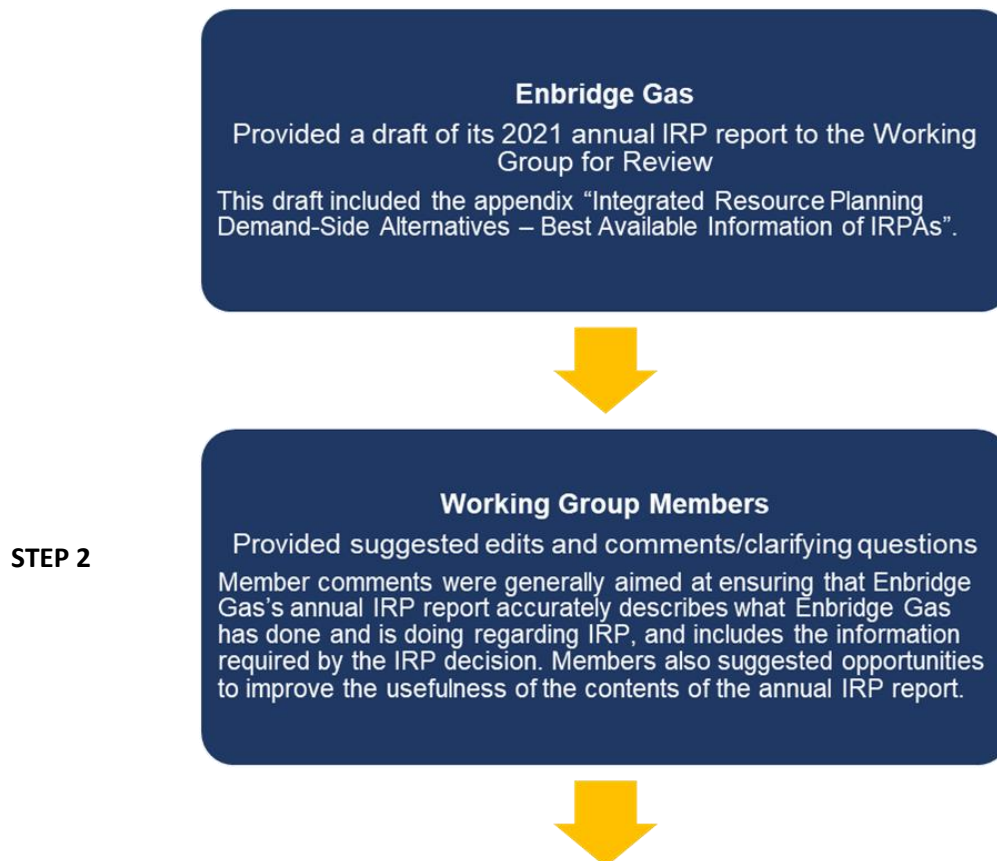
As required by the IRP Decision, a draft terms of reference for the Working Group was developed by OEB staff. Following review and input from Working Group members at the initial meeting, a [final terms of reference](#) was issued by the OEB on February 17, 2022.

² Meeting materials are typically posted online shortly after the meeting. Meeting notes are not typically posted until after the following meeting, to allow for members to review draft notes and identify any omissions or inaccuracies.

3. Review of Enbridge Gas's Annual IRP Report and Comments on Implementation of the IRP Framework

The IRP Decision notes that the Working Group is expected to review a draft of Enbridge Gas's annual IRP report, with the review coordinated by OEB staff, and that Enbridge Gas should provide a draft of the annual IRP report to the Working Group far enough in advance of its planned filing to the OEB to allow the Working Group time to review and comment. The IRP Decision also indicates that the Working Group report should include any comments on Enbridge Gas's annual IRP report, including material concerns that remain unresolved within the Working Group.

The Working Group's review took the following steps:



STEP 3

Enbridge Gas

Revised and finalized its annual IRP report

Enbridge Gas provided a revised draft to the Working Group, documenting how it had taken into account comments from Working Group members, and (after a second stage of review), finalized its annual IRP report. Final determinations as to the contents of Enbridge Gas's annual IRP report were made by Enbridge Gas, not the Working Group.



STEP 4

Working Group Members

Provided final comments on implementation of IRP Framework
 Member comments are discussed further below in section 3.1

3.1. Working Group Comments on Implementation of the IRP Framework

All Working Group members (with the exception of observers) were asked the following question:

Question: Having reviewed Enbridge Gas's final annual IRP report's description of Enbridge's IRP activities in the previous year and having also participated on the IRP Working Group, do you have any comments or concerns with the implementation of the IRP Framework to date?

To varying degrees, all non-Enbridge Gas Working Group members expressed some concerns. These concerns relate primarily to: (1) the pace of Enbridge Gas's efforts to implement the IRP Framework since the IRP Decision in July 2021; and (2) the ability of the Working Group to make progress on its identified priorities (discussed in chapter 4 of this report) and meaningfully contribute to Enbridge Gas's IRP implementation, due in part to Enbridge Gas's determinations regarding the topics and level of detail that it has brought forward to the Working Group to date. More specifics are provided in the comments from individual members in Table 2, and the comments of Enbridge Gas Working Group members follow in Table 3.

Several members (including Enbridge Gas representatives) noted that more frequent meetings or focused subgroups may help advance progress on IRP implementation. The Working Group has agreed to add a second monthly meeting, with a subgroup focusing on the discounted cash flow-plus (DCF+) test, beginning in July 2022.

Table 2: Individual Comments of IRP Working Group Members

Working Group Member	Comments (optional)
<p>Amber Crawford (non-utility member)</p>	<p>Since the Decision and Order was published on July 22, 2021, Enbridge Gas and OEB jointly created the nomination for membership of the IRP Technical Working Group. There have been five meetings held in 2022, and the following observations can be made thus far:</p> <p>Little Progress Made on IRP Pilot Projects: According to the Decision and Order, “the OEB expects that the [two] IRP pilot projects will be selected and deployed by the end of 2022.” (p.24). Meetings to date have discussed pilots at a very high-level, and have not yet seen substantive materials that would help the IRP Technical Working Group provide input on. While this may be in part due to Enbridge’s Asset Management Plan being developed this year, the criteria and potential choices should be further along to meet Enbridge’s deadline.</p> <p>Lack of Transparency and Reliance on 2024 Rate Rebasing: When asked to see data pertaining to pilots, the DCF+ test, binary screening results, best practices in other jurisdictions, or Enbridge’s Asset Management Plan, it has often been denied or mentioned it will be part of the 2024 Rate Rebasing in the Fall. Enbridges view that these topics are better addressed through testing of the evidence within the rebasing application. If this group is to provide input and expertise, it is incumbent on Enbridge to provide those details as otherwise, the consultation will not be meaningful.</p> <p>Minimal Information in Annual IRP Report: As a function of the slow progress in 2021, the Annual IRP Report fails to include details on key sections that would have been helpful and set up the 2022 year better (e.g. Sections 2, 6, 9). The Working Group’s review has been quite limited and question whether input to date has had a meaningful impact on Enbridge’s annual IRP report.</p>

<p>John Dikeos (non-utility member)</p>	<p>I agree with many of the comments from other Working Group members that Enbridge’s progress on identifying and screening potential IRPA pilots and updating its DCF+ cost-effectiveness approach has been relatively slow. There was very limited progress on these items in advance of the first Working Group meeting in January 2022 and progress since has been slow as well. To date, this has limited the Working Group’s ability to provide more meaningful contributions to the future of IRPA planning in Ontario.</p> <p>I noted the following additional items based on my review of Enbridge’s final 2021 IRP Annual Report:</p> <p>Evolution of binary screening criteria: Enbridge has included high-level details regarding its binary screening criteria for IRPAs. Although the criteria appear to be reasonable at this stage given the current knowledge and experience with IRPAs, Enbridge should be encouraged to revisit and evolve the criteria on an ongoing basis. For example, the Timing criteria should likely be condensed as Enbridge gains additional knowledge and experience with demand-side IRPAs.</p> <p>Interruptible rates: Enbridge notes that it is completing a study on interruptible rates, which will be filed as part of its rebasing application in fall 2022. As part of this study, Enbridge should investigate alternative and/or enhanced approaches to interruptible rates, such as the pilot projects that are being run by some utilities in New York (e.g., ConEd).</p>
<p>Tamara Kuiken (non-utility member)</p>	<p>I agree with many of the comments made by other reviewers, including those related to the lack of progress made on IRP pilots, the lack of progress made on improving the DCF+ test, communication about IRP elements delayed until the rebasing application, all initial IRPAs failing the binary test, and the perfunctory IRP Report.</p> <p>In my opinion, Enbridge shows little urgency toward advancing the IRP process, despite their commitment to deploy pilots before the end of 2022. The initial stated reason was a desire to engage with the TWG prior to making commitments; however, the lack of progress since the TWG was initiated suggests that other barriers exist.</p>
<p>Cameron Leitch (non-utility member)</p>	<p>From the definitions within the IRP Framework, this process is meant to address system needs by considering alternatives to conventional facility projects. At the core of this process is clarity on the determination of system needs, and without</p>

	<p>insight into this determination (outside of the future AMP submission), it is difficult for the Working Group to provide meaningful feedback. Comments by other members of the Working Group are insightful, and my repetition of them will not provide added value to the reader.</p>
<p>Chris Neme (non-utility member)</p>	<p>While there have been some good initial discussions, and the tone of those discussions has been appropriately congenial and open-minded, I have several concerns about the effectiveness of the working group (WG) thus far. The most important are as follows:</p> <ol style="list-style-type: none"> 1. Input on key IRP issues related to the Company's next Asset Management Plan (AMP) and rate-basing application has essentially been taken off the table. Among those key issues are (A) the Company's approach to load forecasting in light of Canada's energy transition commitment, fast-increasing carbon taxes and the potential for the Company to partially control demand growth through limitations on new connections; (B) how binary screening criteria are to be assessed/applied, including the how the timing of needs is to be determined (given the binary screening criterion that says alternatives to traditional infrastructure investments should not be considered if the system need is within three years); and (C) how risks of stranded assets are to be addressed (e.g. if load grows in the near term but then declines as electrification takes hold). Had the Company been willing to engage on these issues prior to its filing in the Fall, some progress eliminating issues – or at least surfacing key issues and ensuring that the filing provided data/info likely to be important – could have been made, saving the Board time and making the filing a better product. These kind of collaborative working groups – speaking here to a groups addressing a range of topics, not just IRP – routinely provide such construction feedback in other jurisdictions. 2. Little progress on pilots – and therefore likely failure to begin deploy IRPAs as part of pilots before the end of 2022. This is particularly concerning given that it is essentially one of just two issues that the WG has effectively prioritized for 2022. While I appreciate that the Company may not have wanted to get too far in planning for the pilots until the

	<p>WG had formed, it still could have done a lot of groundwork identifying potential projects/locations for pilots (e.g. maybe developing an initial short list of 10-12) so that we could have jumped right into selection once the WG had talked through priorities.</p> <p>3. No progress on the revisions to the DCF+ cost-effectiveness test. This also has relevance to the Company’s upcoming AMP and rate-basing application, so it would have been ideal to have worked through some issues in greater detail in the first half of 2022.</p> <p>4. Enbridge’s first IRP Report is largely perfunctory, with little useful information. This seems a function of two related things: (A) no IRPAs have been identified yet for deployment; and (B) the Company has decided that all planning related to IRPA consideration will be addressed in its AMP and rate-basing application. As stated above, the Company’s decision to not bring its draft approach to applying the IRP framework to its AMP is an unfortunate missed opportunity. Hopefully next year’s IRP report will be more substantive.</p> <p>Note that greater progress on the items above may have been hindered by having just one meeting a month among a dozen or more people. That might suggest the need for some subgroups focused on particular topics (e.g. cost-effectiveness test) and perhaps with fewer people involved to meet more often. Those subgroups could then report back draft recommendations for the full WG to consider. This model is being used very effectively, for example, by the Illinois Stakeholder Advisory Group (SAG) for energy efficiency. They have full working group meetings quarterly (used to be monthly) but have numerous subcommittees (also with regular meetings) and working groups (more episodically meeting to address specific topics that have more time-sensitive needs). See www.ilsag.info.</p>
<p>Dwayne Quinn (non-utility member)</p>	<p>As the last non-utility member to comment, instead of “piling on” regarding the lack of opportunity for the IRP WG to understand the lack of progress by the utility or even the behind the scene processes, we will simply support contributions of each of the other non-utility members. I am concerned that the Enbridge comments seem to dismiss consensus comments by the group. I believe the reality lies in the fact that Enbridge has not advanced even one single</p>

	<p>concrete example of a potential pilot, which could have been used to allow input from the WG on process matters. The cumulative years of experience and aggregated intellectual capital of the committee is being wasted as we await something substantive to review and to initiate collaboration.</p>
<p>Jay Shepherd (non-utility member)</p>	<p>Very Little Has Been Done To Date. This Report demonstrates that little was done from July 22 to December 31, 2021 to advance IRP in Ontario. The Report discloses that the following steps were taken in that 5+ month period:</p> <ol style="list-style-type: none"> 1. A bare bones website was created (perhaps a day’s work), in which the primary functionality is the ability of customers to indicate their interest in regional constraints and the related IRPAs. However, there are no regional constraints or IRPAs identified, and will not be until the end of 2022 at the earliest. Enbridge promises future enhancements to the website late in 2022 or early in 2023. 2. A committee of the stakeholder engagement folks at Enbridge has been created, but they will have nothing to do until late 2022, when constraints and potential IRPAs have been identified. <p>Nothing else appears to have been done. No preliminary work was done on the pilots, or the DCF+ test, or best practices in other jurisdictions, etc. Or, if there was, none of it was brought to the attention of the IRP Working Group.</p> <p>Asset Management Plan – Refusal to Disclose. In parallel, Enbridge has moved forward with its 2024-2028 Asset Management Plan, but does not appear to have incorporated IRP into that process. Further, when asked to provide information to the IRP Working Group on the process of the AMP, and how it was influenced by IRP, Enbridge refused to do so. Members of the working group sought a draft of the AMP, which should be substantially finalized at this point, but that disclosure was refused.</p> <p>Load and Demand Forecast – Refusal to Disclose. Related to this, Enbridge has, in 2021 and 2022, been preparing its ten year load forecast for the AMP to be filed in the rebasing application, but has declined to share any information on that forecast with the IRP working group. It does not appear that Enbridge has taken any action so far to</p>

	<p>influence that forecast downward through, for example, longer term planning for, or forecasting of, IRPAs.</p> <p>Posterity Group Model – Refusal to Disclose. Another refusal from Enbridge was the request from the IRP working group to see the Posterity Group model that Enbridge plans to use to assess IRPAs. Enbridge will not provide that model unless compelled to do so by the OEB.</p> <p>Interruptible Rates Study – No Consultation with IRPWG. At the same time, Enbridge has proceeded (in 2022, not 2021) with an interruptible rates study as it relates to IRP, but has not brought any information on that study to the IRP working group, and apparently does not intend to do so.</p> <p>100% Fail Rate in Binary Screening. To date, Enbridge has used binary screening on seven projects, and all have failed, in most cases because of Enbridge’s determination that the need must be met in under three years. One of these was the St. Laurent Phase 3 and 4 project, which the OEB determined in the EB-2020-0293 LTC application would not proceed at this time. It is not known yet whether the others that failed the screening can stand up to a similar independent review. No information on that binary screening has been provided to the IRP working group.</p> <p>Pilot Projects – Non-Compliance with OEB Direction. Enbridge also discloses in the attached Report that they will not comply with the OEB direction to “select and deploy” two IRP pilot projects by the end of 2022. They have unilaterally determined, without input from the IRP working group, that they will complete the “select” stage by the end of the year, but will not have the pilot projects “deployed” until the winter of 2023, rather than the winter of 2022.</p> <p>Against this contextual background, Enbridge has been adding to rate base at an average rate of \$100 million of capital additions per month since the IRP Decision, and is continuing to do so.</p> <p>The inescapable conclusion from this Report, and from the actions of Enbridge to date, is that their strategy is a “slow walk” of IRP, consistent with their past resistance to the concept.</p>
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<p>Mike Parkes/Stephanie Cheng (OEB staff representatives)</p>	<p>In OEB staff's view, Enbridge Gas is taking the initial steps (as documented in Enbridge's annual IRP report) to implement the IRP Framework in accordance with the OEB's direction. This includes participating in good faith on the IRP Working Group. Implementation of the IRP Framework is still at a preliminary stage. At this time, OEB staff provides additional comments on three topics:</p> <ul style="list-style-type: none"> <p>Slow start on IRP Pilots (section 3 of Enbridge Gas annual IRP report): The IRP Framework indicated that Enbridge Gas should develop and implement two IRP pilot projects, with the expectation that the pilot projects would be selected and deployed by the end of 2022.</p> <p>Based on the description in the annual IRP report and the information that has been shared with the Working Group, the amount of preparatory work done by Enbridge Gas in the months following the IRP decision in July 2020 to lay the groundwork for these pilots (in advance of seeking input from the IRP Working Group) was very limited.</p> <p>While OEB staff recognizes that this was in part because Enbridge Gas did not want to overly constrain pilot design prior to receiving input from the Working Group, the result is that it is unlikely that pilots will be deployed (if "deployed" is interpreted to include having received an OEB approval) by the end of 2022, which was the expectation of the IRP Decision. The consequence is that there will be a related delay in transferring learnings from the pilots into Enbridge Gas's system planning decisions. It will be important for Enbridge Gas to make use of learnings from the pilots while they are still in-flight, to inform Enbridge Gas's consideration of IRP alternatives in system planning.</p> <p>Insufficient information base to compare IRP Alternatives Versus Facility Projects (sections 2,7, appendix B of Enbridge Gas annual IRP report): Under the IRP Framework, Enbridge will use a four-step IRP Assessment Process to determine the best approach to meeting system needs. Where such system needs pass an initial binary screening, Enbridge Gas is required to assess the technical and economic feasibility of IRP Alternatives in comparison with traditional facility solutions.</p>
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	<p>The level of detail in appendix B (<i>Integrated Resource Planning Demand-Side Alternatives – Best Available Information</i>) of Enbridge’s initial annual IRP report regarding IRP Alternatives, including their cost and peak demand reduction potential, is generally insufficient to assist Enbridge Gas in completing this step of IRP assessment, and will need to be improved in future annual IRP reports.</p> <p>Information on IRP Alternatives will be informed and improved by the results of Enbridge Gas pilots. However, Enbridge Gas will need to conduct IRP assessments prior to completion of the pilots (e.g. for potential system needs identified in Enbridge’s rebasing application). In OEB staff’s view, Enbridge will need to supplement the information obtained from IRP pilots with other sources of information on the expected cost and peak demand reduction potential of IRP Alternatives (including results from other jurisdictions), to assist it in completing IRP Assessments (and to assist the OEB in reviewing Enbridge Gas’s determinations). Otherwise, the risk is that no IRP Alternatives will advance past this stage of IRP Assessment for many years.</p> <ul style="list-style-type: none"> <p>Limited information and Working Group review of IRP elements of rebasing application (sections 2, 6, 9 of Enbridge Gas annual IRP report): The OEB’s review of Enbridge Gas’s rebasing application (expected to be filed in November 2021) will have significant consequences for implementing the IRP Framework. Issues of particular importance noted briefly in the annual IRP report include: Enbridge Gas’s updated asset management plan and its approach (and conclusions) regarding screening system needs for IRP alternatives and reporting on the status of such consideration (section 6), Enbridge Gas’s approach to demand forecasting (section 2), and Enbridge Gas’s approach to studying the potential for interruptible rates (section 9). In OEB staff’s view, Enbridge Gas’s approach to demand forecasting in light of the energy transition to lower-carbon energy sources will likely have significant implications for IRP and system planning, both regarding identification of system needs and the role of IRP Alternatives as potential solutions.</p>
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	<p>These issues are only mentioned briefly in the annual IRP report, and the Working Group has not to date been provided with substantive details of how these topics will be addressed in Enbridge Gas’s rebasing application, and has not commented on them. At this point in time, if any review by the Working Group occurs, it will likely be quite limited. Reasons for this include: these topics were not identified as a priority for the Working Group in the IRP Framework; Enbridge Gas’s view that these topics are better addressed through testing of the evidence within the rebasing application; and views of some Working Group members that input at this stage is unlikely to have a meaningful impact on Enbridge Gas’s application. The consequence is that these issues will be addressed in the rebasing application without significant prior input from the Working Group.</p>
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Table 3: Comments of Enbridge Gas IRP Working Group Members

Working Group Member	Comments (optional)
<p>Chris Ripley/Whitney Wong (Enbridge Gas representatives)</p>	<p>Enbridge Gas has structured its comments to follow the Working Group Participant comments above. For context, Enbridge notes that the Working Group’s focus, per the Terms of Reference and the OEB’s IRP Decision, are three main issues: the IRP Annual Report, the DCF+ cost/benefit test and the IRP Pilots. Enbridge Gas does not agree with the negative tone of many of the Working Group Participant comments. Enbridge Gas has been working diligently on IRP implementation and engaging responsibly with the Working Group, in a manner consistent with the OEB’s directions and expectations from the IRP Framework. As described below, Enbridge Gas expects that the pace of Working Group progress and activities will increase in the coming months.</p> <p>Minimal Information in Annual IRP Report: As noted above, the 2021 IRP Annual Report is reporting on 2021 activities and information. While progress has been made on the three main Working Group tasks; Annual Report, DCF+ and pilots the work has been largely completed in 2022 and will appear in the 2022 IRP Annual Report. In addition, in Enbridge’s view there is a mismatch between the IRP Annual Report, which relates to 2021, before the Working Group held its first</p>

	<p>meeting, and the comments from the Working Group members on that Report, almost all of which relate to the experience of the Working Group in 2022. Over the next few months, the Working Group will discuss potential pilot projects and review Enbridge Gas' proposals for the DCF+ Test.</p> <p>Little Progress Made on IRP Pilot Projects: Enbridge does not agree with the Working Group comments suggesting Enbridge Gas made little effort on the IRP Pilots Projects. The OEB's IRP Decision stated "the OEB expects that the [two] IRP pilot projects will be selected and deployed by the end of 2022." (p.24). Enbridge acknowledges deployment by the end of 2022 is not possible, this is entirely due to the timing of Enbridge's demand forecast and planning processes being completed in Q2 of 2022. The 2023-2032 Asset Management Plan ("AMP"), generated in May 2022, identifies the needs on Enbridge's system. The pilot projects need to be, and will be, based on actual system needs that have been identified in Enbridge Gas' AMP. Enbridge Gas has included an updated IRP pilot schedule in its Annual Report. Enbridge Gas will bring 4-5 actual system needs for each of the two proposed IRP Pilots to the Working Group, including all relevant information to the need. Enbridge Gas will discuss the system needs brought forward with the Working Group, select two IRP Pilot projects and then prepare an application for the OEB's review and approval. In order to complete the IRP Pilot selection process quickly, Enbridge Gas proposed to increase the number of Working Group meetings from once per month to twice per month.</p> <p>DCF+ Test: Enbridge Gas engaged Guidehouse Consulting to conduct a review of the DCF+ test approved by the OEB in the IRP Decision. Enbridge Gas expects to receive the Guidehouse Final Report in June 2022 and will use the Guidehouse report in its review of the DCF+ test and in any proposed changes. Enbridge Gas will be communicating the Guidehouse Report and Enbridge Gas' proposed changes in the July IRP Working Group meeting. As discussed at the Working Group, a sub-group will be established to review the Guidehouse Report and Enbridge's associated proposed changes to the DCF+ Test. This review and discussion will happen prior to the cost test being applied to the IRP Pilot projects or an IRPA Plan.</p>
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	<p>Lack of Transparency and Reliance on 2024 Rate Rebasings: Enbridge Gas is filing its 2024 Rebasings Application in Fall 2022 which will include a comprehensive review of Enbridge Gas’ planning processes, the demand forecast and the Asset Management Plan. Enbridge Gas never understood the Working Group would provide input on the demand forecast process and the asset management requirements. The appropriate time to review Enbridge Gas’ planning processes and the Asset Management Plan is in the Rebasings proceeding, not at the IRP Working Group. Enbridge Gas is holding a Rebasings Stakeholder meeting in June 2022 where Enbridge will provide information about the upcoming filing. Enbridge Gas notes there is no direction to review or provide the planning processes, demand forecast or the Asset Management Plan to the Working Group in the OEB’s IRP decision or the IRP Working Group Terms of Reference</p> <p>Posterity Model: The Working Group have requested Enbridge Gas to provide the model used by Posterity Group to assess energy efficiency opportunities on Enbridge Gas’ system. Enbridge Gas does not own the Posterity model and cannot provide it. Enbridge Gas will explain the model, how it is used and the inputs/outputs as it develops the IRP Pilots.</p> <p>Interruptible Rates: In its IRP Decision, the OEB ordered Enbridge Gas “to study its interruptible rates to determine how they might be modified to increase customer adoption of this alternative service. This initiative is expected to help reduce peak demand, and the study should be filed as part of the next rate rebasing application”. (p.35). Enbridge is completing this direction and it will be filed in the Rebasings Application. Enbridge Gas notes there is no direction to review the Interruptible Rates study with the Working Group in the OEB’s IRP decision or the IRP Working Group Terms of Reference.</p>
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4. Description of Other Key Activities to Date

The Working Group's Terms of Reference confirmed the following items noted in the IRP Decision as the highest initial priorities for the Working Group (in addition to the review of Enbridge Gas's annual IRP report):

- **Consideration of IRP pilot projects to better understand how IRP can be implemented to avoid, delay or reduce facility projects.**
 - The IRP Framework indicated that Enbridge Gas is expected to develop and implement two IRP pilot projects. The pilots are expected to be an effective approach to understand and evaluate how IRP can be implemented to avoid, delay or reduce facility projects. The IRP Framework indicated that the OEB expects that the IRP pilot projects will be selected and deployed by the end of 2022.
 - Working Group activities: The Working Group has had several discussions to provide input to Enbridge Gas on pilot design, focusing primarily on the pilot objectives, the criteria that will be used to select and prioritize pilots, and the types of IRP Alternatives should be a priority to test in the pilots. Enbridge Gas has proposed four potential pilots built on different types of IRP Alternatives: (1) enhanced targeted energy efficiency in combination with a bridging supply-side solution; (2) a peak shaving supply-side IRP Alternative using either compressed natural gas or liquefied natural gas; (3) a demand response program focused on general service customers' heating loads; and (4) a demand response/interruptible rates initiative focused on Enbridge Gas's larger contract customers. Enbridge Gas is also considering a geographical IRP pilot that may address multiple needs within a specific area and include a suite of IRP alternatives, potentially including demand-side and supply-side IRP alternatives, as well as considering enhanced inspection/integrity management measures. In the coming months, it is expected that Enbridge Gas will propose specific projects that match these potential pilots to real system needs identified in its Asset Management Plan, for Working Group review, prior to Enbridge Gas's final selection of pilots. Additional discussion and refinement of the pilot proposals will take place by the Working Group, prior to Enbridge Gas filing pilot applications to the

OEB for approval.

- **Enhancements or additional guidance in using the Discounted Cash Flow-plus economic evaluation methodology to assess and compare the costs and benefits of using either facility solutions or IRP alternatives to meet system needs.**
 - The IRP Framework established a three-phase discounted cash flow-plus (DCF+) test as the economic evaluation that will be used to compare the costs and benefits of different approaches to meeting system need (IRP alternatives, facility alternatives, or a combination). The OEB concluded that the DCF+ test could be improved to better identify and define the costs and benefits of Facility Alternatives and IRP Alternatives, and clarify how these costs and benefits should be considered within the DCF+ test. This could include expanding the inputs to recognize increasing carbon costs, the risk that a constraint remains unresolved, and impact on gas supply costs. Enbridge Gas was directed to study improvements to the DCF+ test, and encouraged to consult with the Working Group, and use the IRP pilot projects as a testing ground. Enbridge Gas was directed to file an enhanced DCF+ test for approval as part of the first non-pilot IRP Plan.
 - Working Group activities: The Working Group has had several preliminary discussions on this topic. This included an analysis and *presentation* by Working Group member and cost-effectiveness expert Chris Neme, which made several proposals to improve or refine the DCF+ test, while remaining consistent with the OEB's guidance on this topic in the IRP Decision. Enbridge Gas is also planning to propose several refinements to the DCF+ test, but these have not yet been discussed with the Working Group. In the coming months, the Working Group plans further discussion, with the goal of agreeing on a preliminary approach to cost-effectiveness that can be used for the IRP Pilot applications. Additional work will be done as needed to address issues that were not completely resolved at the time of filing the pilot applications, and may include development of a supporting guidance document regarding use of the DCF+ test.

The Working Group has also discussed whether to give any consideration to the IRP-related aspects of Enbridge Gas's rebasing application, which would likely be contingent on the degree

of information that Enbridge Gas will provide regarding its application. Enbridge Gas has recently indicated that it will bring forward information on one IRP issue that will be part of rebasing - Enbridge Gas's approach to interpreting the IRP Framework's criteria for screening system needs - for discussion at an upcoming Working Group meeting, and is considering whether other IRP-related aspects of the rebasing application, including the draft Asset Management Plan, can be discussed with the Working Group.

Other potential areas of work for the Working Group in the future may include addressing:

- Learnings from natural gas IRP in other jurisdictions
- Performance metrics for IRP
- Accounting treatment of IRP costs
- Treatment of stranded assets in system planning
- Other activities relevant to the IRP Framework, as identified by the Working Group or as directed by the OEB

The Working Group has not to date discussed these topics in any depth (with the exception of some consideration of IRP in other jurisdictions with regards to pilot proposals).

A draft Work Plan is maintained for the Working Group and updated on a regular basis, outlining workstreams and expected timing of key deliverables.

To: Clerks of All Municipalities in which Enbridge Gas Supplies Gas

On May 31, 2022, Enbridge Gas Inc. (Enbridge Gas) filed an application with the Ontario Energy Board (OEB) for an order or orders approving the clearance or disposition of amounts recorded in certain deferral or variance accounts.

On June 22, 2022, the OEB issued the Notice of Application along with the Letter of Direction for the proceeding. The OEB has directed Enbridge Gas to serve a copy of the Notice of Application along with the application and evidence on the clerks of all municipalities in which Enbridge Gas supplies gas.

Attached please find the OEB's Notice of Application (English and French) along with Enbridge Gas's application and evidence filed with the OEB.

The OEB's Notice of Application provides information on how to become informed and involved in the proceeding. Interested parties can apply to the OEB for Intervenor Status in this proceeding by July 8, 2022.

A paper copy of the evidence filed in this proceeding is available upon request and can also be viewed on Enbridge's website ([EB-2022-0110 -2021 Utility Earnings/Disposition of Deferral and Variance Account Balances](#))

Please contact me if you have any questions.

Sincerely,

Bonnie Jean Adams

Regulatory Coordinator

Enbridge Gas Inc.

T: 416-495-5751

500 Consumers Road | North York Ontario | M2J 1P8

enbridgegas.com

Safety. Integrity. Respect. Inclusion.

CLERK'S DEPARTMENT

June 28, 2022

Honourable Doug Ford
Premier of Ontario
Legislative Building
Queen's Park
Toronto, ON
M7A 1A1

Dear Premier Ford:

Re: Summary and Implications of Provincial Bill 109: More Homes for Everyone Act, 2022

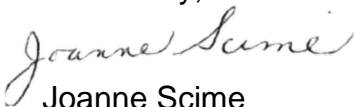
This correspondence is to confirm that on June 27, 2022, West Lincoln Township Council adopted the following resolution regarding the Summary and Implications of Provincial Bill 109: More Homes for Everyone Act, 2022

That, the correspondence from the Town of East Gwillimbury, dated June 15, 2022, requesting the Government of Ontario to revisit the provisions of Bill 109 and work with all stakeholders, including municipalities represented by the Association of Municipalities of Ontario to deliver legislation that allows municipalities to plan, grow and deliver communities that adhere to local, provincially-approved Official Plans, rather than strict statutory timelines; be received and supported; and,

That, a copy of this Motion be sent to the Honourable Doug Ford, Premier of Ontario, MPP Caroline Mulroney, the Minister of Municipal Affairs and Housing, Regional Chairs in Ontario, the Association of Municipalities of Ontario (AMO) and all Ontario municipalities

If any further information is required, please contact the undersigned at 905-957-5136.

Yours truly,



Joanne Scime
Clerk

cc. The Honourable Steve Clark, Minister of Municipal Affairs and Housing
The Honourable Caroline Mulroney, MPP York-Simcoe
Regional Chairs in Ontario
AMO
All Ontario Municipalities

CLERK'S DEPARTMENT

June 28, 2022

Honourable Doug Ford
Premier of Ontario
Legislative Building
Queen's Park
Toronto, ON
M7A 1A1

Dear Premier Ford:

Re: Niagara Region Report PHD 2-2022 & By-law 2022-35 - Waterpipe Smoking By-law

This correspondence is to confirm that on June 27, 2022, West Lincoln Township Council adopted the following resolution regarding the Waterpipe Smoking By-law.

That, the correspondence from the Town of East Gwillimbury, dated June 15, 2022, requesting the Government of Ontario to revisit the provisions of Bill 109 and work with all stakeholders, including municipalities represented by the Association of Municipalities of Ontario to deliver legislation that allows municipalities to plan, grow and deliver communities that adhere to local, provincially-approved Official Plans, rather than strict statutory timelines; be received and supported; and,

That, a copy of this Motion be sent to the Honourable Doug Ford, Premier of Ontario, MPP Caroline Mulroney, the Minister of Municipal Affairs and Housing, Regional Chairs in Ontario, the Association of Municipalities of Ontario (AMO) and all Ontario municipalities

If any further information is required, please contact the undersigned at 905-957-5136.

Yours truly,



Joanne Scime
Clerk

cc. The Honourable Steve Clark, Minister of Municipal Affairs and Housing
The Honourable Caroline Mulroney, MPP York-Simcoe
Regional Chairs in Ontario
AMO
All Ontario Municipalities

On June 30, 2022 Regional Council made the following decision:

1. Council authorize continued use of automated speed enforcement as described in this report, including addition of two new automated speed enforcement mobile cameras in 2022/2023, at an additional cost of \$250,000, for a total cost of \$750,000.
2. Council authorize the Regional Solicitor to take necessary steps to establish a Regional administrative penalty system for automated speed enforcement offences and red light camera offences pursuant to Ontario Regulation 355/22, Administrative Penalties for Contraventions Detected Using Camera Systems, including preparation of the necessary bylaw(s), once the Province has provided the enabling regulatory framework, and to include all associated costs, staff resources and potential revenues in the multi-year (2023-2026) budget submission.
3. Council authorize the Commissioner of Public Works to execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements with the Ministry of Transportation, City of Toronto and Redflex Traffic Systems (Canada) Limited.
4. Council requests the Minister of Transportation make necessary amendments to the Highway Traffic Act that will provide greater discretion to municipal councils in determining where automated speed enforcement may be implemented to advance road safety in a municipality.
5. That this resolution be circulated to the Councils of the nine local municipalities within the geographic boundaries of The Regional Municipality of York.

The original staff report is attached for your information.

Please contact Joseph Petrungaro, Director, Roads and Traffic Operations, at 1-877-464-9675 ext. 75220 or Lisa Brooks, Director, Court Operations, at ext. 73209 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1

O: 1-877-464-9675 ext. 71300 | christopher.raynor@york.ca | york.ca

Our Mission: **Working together to serve our thriving communities – today and tomorrow**

The Regional Municipality of York

Committee of the Whole
Transportation Services
June 16, 2022

Joint Report of the Commissioner of Public Works
and the Regional Solicitor

Automated Speed Enforcement and Administrative Penalty System

1. Recommendations

1. Council authorize continued use of automated speed enforcement as described in this report, including addition of two new automated speed enforcement mobile cameras in 2022/2023, at an additional cost of \$250,000, for a total cost of \$750,000.
2. Council authorize the Regional Solicitor to take necessary steps to establish a Regional administrative penalty system for automated speed enforcement offences and red light camera offences pursuant to Ontario Regulation 355/22, *Administrative Penalties for Contraventions Detected Using Camera Systems*, including preparation of the necessary bylaw(s), once the Province has provided the enabling regulatory framework, and to include all associated costs, staff resources and potential revenues in the multi-year (2023-2026) budget submission.
3. Council authorize the Commissioner of Public Works to execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements with the Ministry of Transportation, City of Toronto and Redflex Traffic Systems (Canada) Limited.

2. Summary

This report seeks Council authority to continue use of automated speed enforcement (ASE) on Regional roads and add additional cameras supported by an administrative penalty system (APS).

Key Points:

- In November 2020, the Region began a two-year, limited used ASE pilot on select Regional roads
- Early pilot results demonstrate strong support for continued use of ASE as a safety tool

- Staff propose expanding the ASE program by adding two mobile cameras in 2022/2023, 60 fixed cameras between 2024 and 2026 and increasing the Region's red light camera program to 55 intersections by 2026, to align with commencement of administrative penalty system operations
- A Regional APS is required to support the proposed expansion of camera-based enforcement

3. Background

Six provinces have legislation allowing use of electronic speed detection and red light camera systems

Several Canadian municipalities use electronic speed detection (photo radar) and red light camera systems with some cities using these approaches as far back as 1998. Table 1 provides a summary of relevant information.

Table 1
Municipalities Using
Electronic Speed Detection and Red Light Camera Systems

Location	Population	Number of ASE Cameras	Implemented	Number of Red Light Cameras	Implemented
British Columbia**	5,200,000	140	July 2019	35	July 2019
Calgary, AB*	1,360,784	10	1998	55	2000
Regina, SK	215,106	3	December 2014	3	2020
Winnipeg, MB*	749,607	10	2006	33	2001
Hamilton, ON	596,353	2	October 2020	33	2008
Toronto, ON	2,794,356	50	July 2020	150	1999
Ottawa, ON	1,017,449	11	July 2020	67	2001
Montreal, QC	1,762,949	6	May 2009	3	May 2009

* Intersection Safety Cameras detect both whether a vehicle fails to stop for the red light phase in a signalized intersection and the travel speed of vehicular traffic

+ Photo radar is administered as a provincial program

2019 Ontario Regulation currently allows municipalities to operate automated speed enforcement in school areas and community safety zones only

Subsequent to Bill 65, *Safer School Zone Act, 2017*, [Ontario Regulation 398/19](#) came into effect on December 1, 2019. The Regulation allows municipalities to use camera systems to enforce speeding offences in school areas and community safety zones only. The Region will continue to advocate for further use of ASE outside of school areas and community safety zones, and municipally-owned roads.

Automated speed enforcement is a safety tool that uses a camera and speed measurement device to help enforce speed limits in school areas and community safety zones. ASE has been shown to influence driver behaviour to help decrease speeding and increase safety and is a cost-effective tool that supplements traditional speed enforcement.

November 2020, one mobile automated speed enforcement camera became operational on Regional roads

In [November 2020](#), the Region began a two-year, limited use ASE pilot on select Regional roads. The Region's pilot program was developed in collaboration with York Regional Police. Sites were selected based on the highest risk to school children, with at least one site selected in each local municipality to maximize Regional coverage. One mobile ASE camera is rotated monthly among 12 community safety zones, covering 19 schools. The cost of the two-year pilot is estimated at \$500,000. ASE information, site locations and camera rotation schedule are available at york.ca/trafficsafety.

November 2021, Council was provided an update on the limited use automated speed enforcement pilot

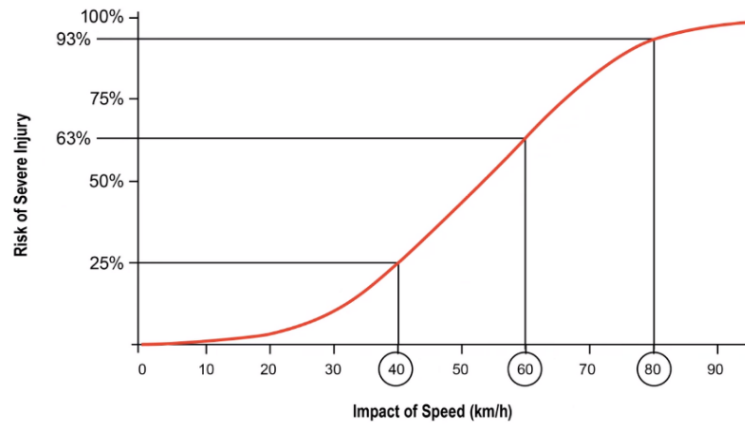
In [November 2021](#), Council received an update on the limited use ASE pilot. Initial results demonstrated a positive effect on driver behaviour and speed limit compliance. Staff committed to providing Council with the two-year pilot results in 2022.

4. Analysis

Lowering speed limits will help improve traveller safety as the Region continues to intensify

Physical environment is a key driver in determining the most appropriate travel speed for a roadway. Where a physical environment encourages walking and cycling, pedestrians and cyclists must co-exist with vehicles. Figure 1 shows the relationship between the probability of a severe pedestrian injury and vehicle collision speed. As vehicle speed increases, pedestrian severe injury rates rise dramatically in a pedestrian/vehicle collision. While 24% of vehicle-only collisions resulted in injury or fatality, almost all pedestrian (94%) and cyclist (82%) collisions resulted in injury or fatality.

Figure 1
Pedestrian Severe Injury Rate in Relation to Vehicle Travel Speed

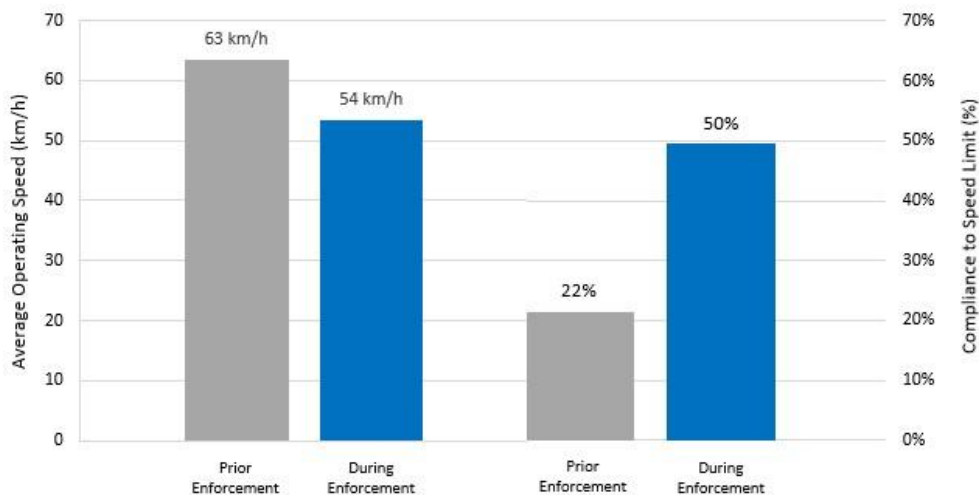


Source: Adapted from TAC Geometric Design Guide for Canadian Roads, June 2017

Early pilot results demonstrate strong support for continued use of automated speed enforcement as a safety tool

The limited use ASE pilot has been operating in school areas on Regional roads for eighteen months. Results collected at the first 11 locations show the presence of the camera is resulting in slower driving speeds. Attachment 1 highlights compliance rates for these locations. Average compliance with the posted speed limit has more than doubled and operating speeds reduced by 9 km/h (Figure 2). More frequent use of ASE will help condition motorists to maintain lower operating speeds. Other participating municipalities are experiencing similar changes.

Figure 2
Average Speed and Compliance in Areas with Automated Speed Enforcement



Staff propose expanding the automated speed enforcement program to align with implementing administrative penalty system operations

Recognizing positive results of the automated speed enforcement pilot and strong business case for a Regional administrative penalty system, staff propose adding two mobile ASE cameras in 2022/2023. Steps to implement 60 automated speed enforcement fixed cameras in York Region community safety zones between 2024 and 2026 are planned, subject to the City of Toronto extending the Vendor's agreement and the City's capacity to process infractions. Development of the administrative penalty system is necessary to accommodate the significant increase in infractions. All costs and staff required to implement administrative penalty system operations would be included in the multi-year (2023-2026) budget submission.

Mobile ASE cameras provide flexibility in covering more school areas. Fixed ASE cameras help sustain improved speed limit compliance with continuous enforcement in school areas. Examples of these cameras are shown in Figure 3. The automated speed enforcement program target is to have one fixed camera in every community safety zone, which includes all school zones by 2026. All costs and staff resources required for the 60 ASE fixed cameras would be included in the multi-year (2023-2026) budget submission.

Figure 3

Automated Speed Enforcement Cameras

Mobile ASE Camera



Fixed ASE Camera



Regional administrative penalty system is required to support automated speed enforcement program growth

Camera-based enforcement such as ASE can generate 10,000 penalties per year per camera. Due to the low dispute rate of ASE offences (12%), Court Services can absorb an increase of two cameras in 2023. Any further growth of the ASE program requires a Regional administrative penalty program to support the higher volume of penalties and provide timely access to dispute resolution. An administrative penalty system is an efficient alternative to

adjudication for low-liability offences, such as camera-based enforcement, parking and some bylaw offences. Penalties are monetary only in nature.

There are numerous benefits to administering certain offences under an administrative penalty system:

- More flexibility to design a streamlined and automated process to improve customer experience
- Due to a digital and automated process, an administrative penalty system is highly scalable and more cost effective than the traditional court process
- Operational value in removing matters from the provincial court system and building capacity for more serious offences
- Opportunity for local municipalities to leverage a Regional program, including shared resources and technology systems

On July 1, 2022, Regulation 355/22 *Administrative Penalties for Contraventions Detected Using Camera Systems* will come into effect, enabling administrative penalties for ASE and red light camera offences. It is recommended the Regional Solicitor be authorized to take necessary steps to establish a Regional administrative penalty system for all eligible offences.

Administrative penalty system would also support further expansion of the red light camera program

The Region currently operates a red light camera program at 40 signalized intersections. Red light cameras have resulted in about a 50% reduction in right-angle and turning movement collisions Region-wide at all signalized intersections. The program is a key component of the Region's Traffic Safety Program and supports community well-being. Implementing red light cameras at a select number of sites can help influence driving behaviour at all signalized intersections across a jurisdiction.

Building on success of the red light camera program and introduction of an administrative penalty system, further expansion of the program can be supported. Staff propose to expand the program by five cameras each year between 2023 and 2026.

Staff recommends Commissioner of Public Works be authorized to execute automated speed enforcement operating agreements

The Region entered into agreements with the Ministry of Transportation, City of Toronto and Reflex Traffic Systems (Canada) Limited to operate ASE. Staff recommends the Commissioner of Public Works be authorized to execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements.

Subject to Council approval, expanded use of ASE will be communicated to residents and motorists through on-street signage, social media posts, website content, articles and communication for school boards to share.

Automated speed enforcement supports the Strategic Plan and aligns with Vision 2051

Automated speed enforcement on the Regional road network helps improve traveller safety and aligns with the 2019 to 2023 Strategic Plan priority area of supporting community health, safety and well-being. Automated speed enforcement also aligns with the Traveller Safety Plan being developed in collaboration with road safety partners. Expansion of the Region's ASE program reflects a responsive public service, a focus area of Vision 2051.

5. Financial

Automated enforcement programs are forecasted to be cost neutral with no additional tax levy requirement

Expenses incurred during the pilot under the Provincial Offences Act have been recovered. Once the administrative penalty system is operational, collections from the automated speed enforcement program have the potential to fully recover program costs. Furthermore, it is anticipated the program will have no additional tax levy requirement. All costs associated with implementing APS and expanding ASE and red light camera programs will be included in the multi-year budget submission for Council consideration.

A modest investment is required to establish a Regional administrative penalty system and will be included in the Court Services multi-year budget submission (Table 2). To note, when compared, expenses per offence under an administrative penalty system are 45% lower than in Provincial Offences Court. The primary reason for higher Provincial Offences Court expenditures is a much more intensive business process that drives labour costs up with increased offence volumes. Conversely, an administrative penalty system is highly scalable and labour costs are less affected by the volume of charges processed due to a digital and automated process. It is anticipated all costs will be recovered through collection of penalties.

Table 2
Investment in Administrative Penalty System

	2023	2024	2025	2026
Total automated speed enforcement cameras	3	23	43	63
Total red light cameras	40	45	50	55
Camera operating costs	\$2.0M	\$6.4M	\$10.7M	\$15.2M
Administrative penalty system expenses	\$1.0M	\$1.6M	\$2.3M	\$2.8M
Total expenses	\$3.0M	\$8.0M	\$13.0M	\$18.0M

The estimated cost, in 2023, to operate three automated speed enforcement mobile cameras and 40 red light cameras is approximately \$2 million per year. This cost will increase by approximately \$5 million each year, with a total of 60 additional fixed cameras and 15 additional red light cameras (about 20 automated speed enforcement and five red light cameras per year) between 2024 and 2026.

All associated costs, staff resources and potential revenues will be included in the Public Works multi-year budget submission to support continued use of automated speed enforcement with two additional mobile cameras in 2022/2023, the expansion of 60 fixed cameras between 2024 and 2026 and increasing the red light camera program to 55 intersections by 2026.

6. Local Impact

Automated speed enforcement is a cost-effective enforcement tool supplementing traditional speed enforcement and has been shown to influence driver behaviour to help decrease speeding and increase safety. Staff has shared results of the limited use ASE pilot with local municipal engineering staff and staff's recommendation to continue use of ASE in community safety zones on Regional roads.

Staff will collaborate with local municipal staff as interested municipalities begin developing their own automated speed enforcement programs. Staff will continue to share the Region's experiences with data collection for consideration in site selection. As local municipalities move forward, they will update their traffic bylaws and execute separate agreements with the Ministry of Transportation of Ontario, City of Toronto and Redflex Traffic Systems (Canada) Limited to operate their own ASE program. Currently, this process can take a minimum of 12 to 18 months.

There is also an opportunity for local municipalities who have not implemented an administrative penalty system and have fewer organizational resources, to leverage the Regional program, including shared Screening Officers, Hearing Officers, administrative support and shared technology systems. This approach will also be discussed with our local municipal partners.

7. Conclusion

Early results of the two-year, limited use automated speed enforcement pilot have demonstrated persuasive evidence to support continued use. Staff proposes expanding the program and adding two mobile cameras in 2022/2023, 60 fixed cameras between 2024 and 2026 (approximately 20 per year) and increasing our red light camera program to 55 intersections by 2026 to align with commencement of administrative penalty system operations.

This report seeks Council authorization for the continued use of automated speed enforcement as a safety tool, the addition of two new mobile cameras in 2022/2023, and for the Regional Solicitor to establish an administrative penalty system once the Provincial regulatory framework is provided and include all associated costs, staff resources and potential revenues in the multi-year 2023-2026 budget submission.

Pending Council authorization, the Commissioner of Public Works may execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements.

For more information on this report, please contact Joseph Petrunaro, Director, Roads and Traffic Operations, at 1-877-464-9675 ext. 75220 or Lisa Brooks, Director, Court Operations, at ext. 73209. Accessible formats or communication supports are available upon request.

Recommended by:



Erin Mahoney, M. Eng.
Commissioner of Public Works



Dan Kuzmyk
Regional Solicitor























Approved for Submission:

Bruce Macgregor
Chief Administrative Officer

May 27, 2022
Attachment (1)
13604166

Average Operating Speed and Speed Limit Compliance Before and During Automated Speed Enforcement Pilot

Location	School	Posted Speed (Km/h)	Average Operating Speed (Km/h)			Compliance to Speed Limit (%)		
			Prior Enforcement	During Enforcement	Changes	Prior Enforcement	During Enforcement	Changes
Rutherford Road (Y.R. 73) east of Islington Avenue (Y.R. 17)	Emily Carr Secondary School	60	75	57	 18	7%	62%	 55%
Old Homestead Road (Y.R. 79) east of Metro Road North (Y.R. 78)	St. Thomas Aquinas Catholic Elementary School	50	56	48	 8	24%	64%	 40%
Highway 7 (Y.R. 7) west of Robinson Street	St. Patrick Catholic Elementary School	50	60	50	 10	11%	55%	 44%
Mount Albert Road (Y.R. 13) east of Birchard Boulevard	Mount Albert Public School	50	56	49	 7	25%	64%	 39%
Bayview Avenue (Y.R. 34) south of Redstone Road	Bayview Secondary School Our Lady Queen of the World Catholic Academy	60	59	58	 1	57%	62%	 5%

Location	School	Posted Speed (Km/h)	Average Operating Speed (Km/h)			Compliance to Speed Limit (%)		
			Prior Enforcement	During Enforcement	Changes	Prior Enforcement	During Enforcement	Changes
Leslie Street (Y.R. 12) south of Manor Hampton Street	Sharon Public School	50	54	50	 4	42%	49%	 7%
King Road (Y.R. 11) east of King Boulevard	King City Public School	40 (7 am to 5 pm)	65	49	 16	6%	30%	 24%
	King City Secondary School	50 (Other)						
Weston Road (Y.R. 56) north of Ashberry Boulevard	St. Jean De Brebeuf Catholic High School	50 (7 am to 5 pm)	68	59	 9	24%	31%	 7%
		60 (Other)						
Mulock Drive (Y.R. 74) east of Fernbank Road	Newmarket High School	50 (7 am to 5 pm)	68	56	 12	16%	42%	 26%
		60 (Other)						
Bloomington Road (Y.R. 40) west of Warden Avenue (Y.R. 65)	Whitchurch Highlands Public School	50 (7 am to 5 pm) 60 (Other)	73	59	 14	8%	37%	 29%

On June 30, 2022 Regional Council made the following decision:

1. The Regional Clerk circulate this report to the Agriculture and Agri-Food Advisory Committee, the Ontario Ministry of Agriculture, Food and Rural Affairs and local municipalities.

The original staff report is attached for your information.

Please contact Jonathan Wheatle, Director, Economic Strategy at 1-877-464-9675 ext. 71503 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

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Our Mission: **Working together to serve our thriving communities – today and tomorrow**

The Regional Municipality of York

Committee of the Whole
Planning and Economic Development
June 16, 2022

Report of the Commissioner of Corporate Services and Chief Planner

2021 Agriculture and Agri-Food Strategy Update

1. Recommendation

The Regional Clerk circulate this report to the Agriculture and Agri-Food Advisory Committee, the Ontario Ministry of Agriculture, Food and Rural Affairs and local municipalities.

2. Summary

This report provides Council with the annual 2021 update on activities, partnerships and achievements for implementing the [Agriculture and Agri-Food Strategy](#) (the Strategy).

Key Points:

- The fourth year of the Strategy implementation is on track with more than 90% of the actions either underway, planned or completed
- York Region partnered with Ontario Ministry of Agriculture, Food and Rural Affairs to host the 13th Municipal Agriculture Economic Development and Planning Forum (2021 Agri-Food Forum), raising the profile for the sector in the Region
- York Region Food & Beverage Accelerator Program participants achieved more than \$900,000 in total revenue, with nearly 450 new distribution points, over two years
- Agriculture and agri-food programming and stakeholder engagement reached over 6,000 participants since 2018 and generated 800,000+ views in 2021 on social media

3. Background

York Region's agriculture and agri-food sector contributes \$2.7B to York Region's gross domestic product

York Region's agri-food sector includes more than 700 farms and 270 food and beverage manufacturers and distributors that contribute to York Region's economic vitality. Based on the 2016 Census of agriculture, the agri-food sector in York Region, from farms to processors, food retailers and restaurants, provides approximately 57,000 jobs, generating \$2.7B in gross domestic product for York Region.

In 2017, Council approved the Strategy to guide long-term growth of the Region's agri-food sector

[The Strategy](#) endorsed by Council in [October 2017](#), sets direction for long-term growth of the sector and guides development of policy and program initiatives. The Strategy articulates a comprehensive set of objectives defined within five strategic goal areas, comprised of 45 action items, to be implemented over five years.

The five strategic goals are:

1. Strengthen communication and collaboration with York Region, local municipalities and the agri-food sector
2. Support the agri-food sector through integrated land use planning and economic development
3. Support increased capacity for value added agri-food processing and support services
4. Leverage location within the GTA and proximity to customers through direct farm marketing and meet demand for local food production
5. Provide support for business retention and expansion of primary agricultural production within York Region

Progress on the Strategy initiatives is reported to Council annually.

The Agriculture and Agri-Food Advisory Committee supports York Region in delivery of the Strategy

The Agriculture and Agri-Food Advisory Committee (Advisory Committee), a volunteer advisory committee, was created by Regional Council in 2001 to support the agricultural industry and promote healthy rural communities. Advisory Committee members provide advice to Council and staff on agriculture, agri-food and rural matters in York Region. In [September 2019](#), Council appointed [members to the Advisory Committee](#) for the 2019-2022 term. Advisory Committee members provide a balanced representation across the agri-food value chain including producers, input suppliers, food processors, distributors, and food retailers.

Advisory Committee members continued to play an integral role in helping advance the objectives of the Strategy throughout the Pandemic.

The Pandemic continued to bring challenges such as labour shortages in the agri-food sector

The Pandemic created significant challenges but also provided some opportunities for the agri-food sector. At the onset of the pandemic, an increase in consumer demand and supply chain disruptions resulted in some depleted store inventories. The pandemic also impacted labour due to outbreaks in the manufacturing industry, food service closures, and delayed

arrival of temporary farm workers. One of the most profound effects of the pandemic was felt through lost wages and massive unemployment, particularly in the foodservice industry.

The labour shortages in the agri-food industry led to Federal and Provincial investments in new [agri-food programming](#), such as the [Ag-Tech Innovation Program](#) with a focus on ag-tech automation and new technology adoption in response to the labour shortage. Industry associations such as the [Ontario Federation of Agriculture](#) and [Food and Beverage Ontario](#) have also responded, establishing career programs to connect job seekers and youth planning their careers with Ontario's agri-food employers, to fill the labour gap. According to the [March 2022 Labour Force Survey](#), employment in the agriculture sector increased for the first time since November 2020.

Overall, the local food system demonstrated innovation, strength, and resiliency during the pandemic. From local distilleries shifting their operations to produce hand sanitizer, to farms pivoting their business models with digital innovation to help communities safely access fresh food, the agriculture and agri-food sector has stepped up in a big way.

4. Analysis

The Strategy implementation is on track with more than 90% of actions underway, planned or completed

The Strategy is ambitious and identified [45 action items](#) for implementation over five years (2018-2022) to support and grow the agriculture and agri-food sector. The actions are grouped as on-going, short-term, medium and long-term activities.

In 2021, York Region worked closely with local municipal partners, the Advisory Committee, and agri-food stakeholders to implement actions in the Strategy. As of December 2021, 42 of the 45 action items (93%) were underway, planned or completed. In summary:

- All short-term activities have been completed
- Majority of the ongoing activities have been completed and operationalized
- More than half of the medium and long-term actions have been completed and operationalized as ongoing

Completed and ongoing activities include showcasing agricultural innovators/champions in the Region, continuing local food education campaign, facilitating networking events such as 2021 Agri-Food Forum, and delivery of York Region's Food & Beverage Food Accelerator Program.

A summarized list of action items grouped by status (underway, planned, new, completed and operationalized as ongoing) is outlined in Attachment 1.

Advisory Committee members continued to support Strategy implementation

The Advisory Committee continued to provide input and support the implementation of actions from the Strategy. In 2021, five virtual meetings were held. The transition to virtual committee meetings made it easier for members to participate and provide input during the

pandemic. The Region engaged with the Advisory Committee members, through regular presentations at the Committee meetings, to get input and feedback on several initiatives and topics, including:

- The Municipal Comprehensive Review process to update the York Region Official Plan. In December 2021, staff provided an overview of the draft Regional Official Plan (ROP) to the Advisory Committee and requested members provide comments by March 31, 2022.
- Virtual education webinar series for agri-food businesses
- Research on Farm 911 – The Emily Project
- Planning and delivery of 2021 Agri-Food Forum

The Advisory Committee will continue to be engaged in 2022 to deliver remaining actions from the Strategy.

York Region hosted 2021 Agri-Food Forum with Ontario Ministry of Agriculture, Food and Rural Affairs to raise the profile for the sector in the Region

In the Fall of 2020, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) selected York Region as its primary partner to deliver the 13th Annual Municipal Agriculture Economic Development and Planning Forum ([2021 Agri-Food Forum](#)). The Forum was delivered as a virtual event on November 3 and 4, 2021, with the theme of enabling “Innovation and Resiliency in the Agri-Food Sector”. The event featured over 60 speakers with panel sessions focused on agri-tech, entrepreneurship, exploring innovative ways of doing business and building a resilient agri-food sector in response to COVID-19 pandemic (the Pandemic).

The event was attended by the Minister of Agriculture, Food and Rural Affairs, who provided remarks on the first day. More than 200 attendees from across Ontario attended the two-day event, including regional and local economic development and planning staff, local councillors, and agri-food stakeholders. Staff developed a video as a [virtual tour to showcase York Region’s agriculture and agri-food sector](#) for the participants. The Forum raised the profile for the sector in the Region and received an Ovation Award of Excellence by the Toronto Chapter of the International Association of Business Communicators (IABC) for its communications management. Through Zoom polling, 99% of the attendees indicated that the event either exceeded or met their expectation.

York Region’s community partners deliver projects that align with the Strategy

York Region’s community partnerships with the Golden Horseshoe Food and Farming Alliance and York Farm Fresh for 2021 delivered projects that support the Strategy:

- **Golden Horseshoe Food and Farming Alliance (GHFFA):** York Region staff continued to work and collaborate with GHFFA through projects in York Region. In 2021, GHFFA partnered with York Region on a video project as part of [Phase 2 of the Always in Season](#), profiling carrot production in York Region’s Holland Marsh. Other partners for the video include the Ontario Federation of Agriculture, the Holland

Marsh Growers Association, Wilton Consulting and King Township. In addition, GHFFA released its position paper on [Event Barns](#), soliciting input from the Advisory Committee. The paper was presented at the 2021 Agri-food Forum.

- **Local Food Promotion:** York Farm Fresh connects York Region communities to locally grown products at farms and farmers markets. The Region funded York Farm Fresh as a service delivery agent to raise awareness of locally produced agricultural products and develop the local Farm Fresh Guide Map for 2021. In addition, York Farm Fresh digitized the map into a [multilingual mobile app for 2021](#), with funding support from ventureLAB Entrepreneurship and Innovation Funding. The map is translated in seven different languages including French, Chinese (simplified and traditional), Farsi, Urdu, Russian, and Tamil.

A summary of achievements from the projects delivered with community partners is illustrated in Attachment 2.

York University delivered the second cohort of the York Region Food and Beverage Accelerator Program

The Region worked closely with Yspace, York University's Innovation Hub to deliver the second cohort for [York Region's Food and Beverage Accelerator Program](#). The five-month program helped 10 food and beverage ventures accelerate their sales, scale up and launch new products. The program provided expert mentorship and peer-to-peer circles, with delivery of 32 virtual workshops to give founders the tools, skills, and connections to grow.

Key outcomes achieved by 20 businesses in both cohorts include generating nearly \$900,000 in total revenue, with distribution expansion to 450 new stores in two years. In addition, two companies, [Oat Canada](#) and [Its Souper](#) made a pitch to secure deals on CBC's Dragons' Den of \$100,000 and \$180,000 respectively. Overall, the program participants have leveraged additional \$7.2 M from private and public funding. The program has been highlighted in media outlets including [Food in Canada](#) and the [Toronto Star](#).

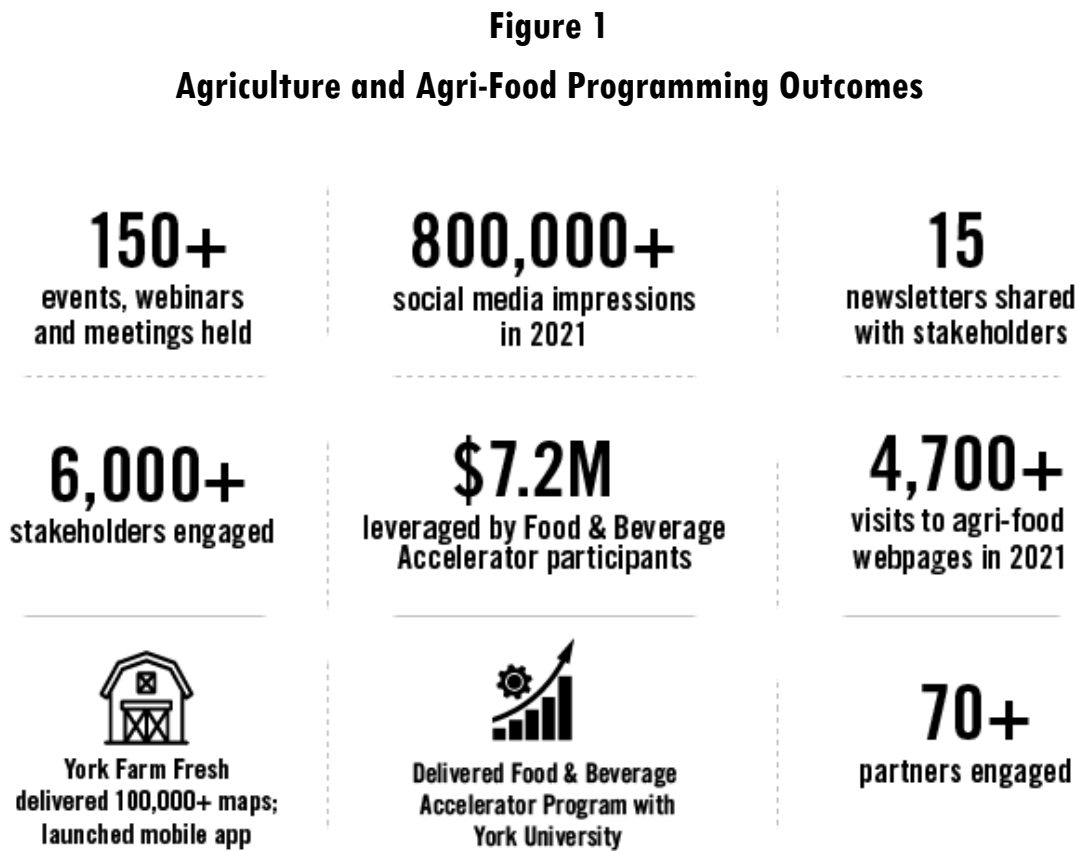
York Region continued to support the Agri-Food Sub-Group as part of the Business Recovery Support Partnership

The York Region Business Recovery Support Partnership was created in [April 2020](#) to bring together economic development stakeholders and industry leaders from across York Region. As part of this initiative, an industry-led agri-food sub-group (Group) with members of the Advisory Committee and other industry experts was established to support the sector.

Facilitated by York Region Economic Strategy, this Group held eight meetings in 2021 as part of an ongoing dialogue to review challenges and opportunities in response to the Pandemic. Public health representatives participated in the meetings to provide updates and guidance for the agri-food stakeholders. The Group collaborated to share best practices and deliver projects in response to the challenges identified.

Agriculture and Agri-Food Programming and stakeholder engagement reached over 6,000 participants and generated 800,000+ views on social media

Since the Strategy was launched in 2018, agriculture and agri-food programming has engaged more than 6,000 stakeholders and generated 800,000+ views on social media. Figure 1: Agriculture and Agri-food Programming Outcomes illustrates key performance metrics and outcomes from agriculture and agri-food programming over the past four years.



During the pandemic, consumer food trends shifted towards greater demand for locally grown food. This increased demand continued to be accommodated, with staff promoting local food in collaboration with York Farm Fresh Association through the distribution of York Farm Fresh Guide maps and promoting safe visitation.

York Region will continue to deliver on the remaining action items in the Strategy

In 2022, staff will build on work already completed and underway, and continue delivering the remaining actions prioritized as medium to long-term in the Strategy. The 2022 workplan includes a focus on background review and information gathering to set the stage for Strategy 2.0 and position York Region as the agri-food hub for businesses.

The remaining deliverables planned for 2022 include:

- Continued collaboration with the Advisory Committee, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), and local municipalities
- Conducting a baseline study to review local food-sourcing practices at York Region facilities
- Reviewing census of Agriculture 2021 dataset
- Information gathering to initiate a five-year review of the Strategy
- Supporting the agri-food innovation network in the Region

5. Financial

The Strategy identified a significant number of objectives and actions for consideration as part of implementation. Funds required to support 2022 Agriculture and Agri-Food implementation activities are included in the 2022 Planning and Economic Development approved budget.

6. Local Impact

The Strategy supports and complements the goals and interests of the Region's local municipal partners. Staff from local municipalities participated in development and review of the Strategy and continue to attend Advisory Committee meetings. Regional staff partner with local municipalities to deliver programs and execute the Strategy. The Strategy is shared with local municipalities to be leveraged as they develop their respective agriculture and agri-food plans and initiatives.

7. Conclusion

Through implementation of the Strategy, York Region continues to demonstrate a strong commitment to the agriculture and agri-food sector. Implementation of the Strategy is on track with significant stakeholder outreach and engagement in 2021, enabled by leveraging technology to deliver virtual events and activities.

In 2022, the Region, local municipalities and Advisory Committee will continue to build on the momentum to deliver remaining action items from the Strategy. In addition, staff will continue to collaborate with agri-food stakeholders to build capacity in the sector in response to the Pandemic. A key focus for 2022 is to deliver the remaining actions and set the stage for Agriculture and Agri-Food Strategy 2.0. The progress on the Agriculture and Agri-Food Strategy initiatives and work of the Advisory Committee will be reported as a part of the annual update to Council.

For more information on this report, please contact Jonathan Wheatle, Director, Economic Strategy at 1-877-464-9675 ext. 71503. Accessible formats or communication supports are available upon request.

Recommended by:



Paul Freeman, MCIP, RPP
Chief Planner



Dino Basso
Commissioner of Corporate Services

Approved for Submission:



Bruce Macgregor
Chief Administrative Officer

June 2, 2022
Attachments (2)
13807344

Agriculture and Agri-Food Strategy: Status of Action Items

STRATEGIC GOAL	ACTION ITEM	TIMELINE	STATUS
1. Strengthen communication and collaboration with York Region, lower tier municipalities and the agri-food sector	1.1 Create a York Region agri-food specialist role dedicated to supporting growth of existing businesses, attracting new investments and promoting the Agri-food sector in York Region.	Short-term	Complete
	1.2 Build internal staff capacity to provide direction to lower tiers on agri-food issues; coordinate programming and initiatives between planning and economic development and tourism at the Regional level.	On-going	Complete/ On-going
	1.3 Develop a communication roadmap/strategy to ensure open and transparent communication pathways.	Short-term	Complete
	1.4 Create a directory/resource that includes names and contact information of producers in the Region; to be used by the Region for collecting employment data.	Medium-term	Complete
	1.5 Create annual opportunity to collect feedback from the agri-food sector to strengthen York Region staff and Council's understanding of farm and food businesses and their needs by engaging with local farmers and agri-food experts.	Medium-term	Complete/ On-going
	1.6 Continue to support and collaborate with GHFFA through projects.	On-going	Complete/ On-going
	1.7 Continue support for the York Region Agricultural Advisory Liaison Group (YRAALG) by allocating annual budget for special projects and events.	Medium-term	Complete/ On-going
	1.8 Explore and identify ways to celebrate and showcase agricultural innovators/champions in	On-going	Complete/ On-going

STRATEGIC GOAL	ACTION ITEM	TIMELINE	STATUS
	the Region using existing communication efforts.		
	1.9 Seek opportunities to collaborate with partners in York Region and beyond the Region.	On-going	Complete/ On-going
	1.10 Develop York Region agri-food educational materials for general public to share at regional and community events.	On-going	Complete/ On-going
	1.11 Investigate and explore opportunities for teaching youth about agriculture and food production in the Region.	Medium-term	Complete/ On-going
	1.12 Demonstrate a commitment to the agri-food sector by supporting agricultural events and conventions through sponsorship or in-kind support.	On-going	Complete/ On-going
	1.13 Collaborate with organizations such as Rouge National Park, Oak Ridges Moraine Trust, Ontario Soil and Crop Improvement Association (OSCIA), and Ontario Farmland Trust to conduct study to understand current land stewardship practices used by York producers.	Medium-term	Complete/ On-going
2. Support agri-food sector through integrated land use planning and economic development			
	2.1 At the next review, update York Region's Official Plan to conform and align with recent changes to the Greenbelt Plan, Growth Plan and Oak Ridges Moraine Plan (2017 updates).	Medium-term	Underway
	2.2. Prior to next Official Plan review, conduct a Land Evaluation and Area Review (LEAR) study to collect updated data on quality of soils, fragmentation, conflicting uses and production in York Region.	Medium-term	Complete
	2.3 Through the Municipal Comprehensive Review, review York Region's Official Plan (and lower tier plans) related to overall agricultural strategies, land use policies, acceptable uses, as well as application processes and development fees to ensure they encourage and support investment and employment in the agricultural sector.	On-going	Underway

STRATEGIC GOAL	ACTION ITEM	TIMELINE	STATUS
	2.4 Conduct a study that investigates innovative financial mechanisms that incentivize producers and landowners to keep land in agricultural production.	Medium-term	New
	2.5 Conduct a review of policies and regulations related to environmental performance of food processing operations within the Region.	Short-term	Complete
	2.6 Participate in the upcoming consultation and review for the Greater Golden Horseshoe's Agricultural System policies (led by OMAFRA).	Short-term	Complete
	2.7 Recognize and acknowledge the agri-food sector's role as an economic driver in the Region through updates to plans and policies.	Medium-term	Complete/ On-going
	2.8 Conduct a study and review of edge planning practices and identify planning tools the Region can use to resolve conflicts between adjacent urban and agricultural land uses.	Medium-term	Complete/ On-going
	2.9 Monitor the province's development of Agricultural Impact Assessment (AIA) guidelines and provide feedback through consultation with planning staff and other relevant stakeholders.	On-going	Complete
	2.10 Encourage the lower tier municipalities to develop and implement an Agricultural Community Improvement Plan (CIP) to incentivize on-farm diversification and value-added operations.	On-going	Complete/ On-going
	2.11 Create factsheets and accessible materials to help agri-food stakeholders interpret land use policies.	On-going	Complete
3. Support increased capacity for value added processing and support services			
	3.1 Develop and implement a Food Processing Action Plan that demonstrates York Region is 'open for business' to attract and retain food processing businesses.	Medium-term	New

STRATEGIC GOAL	ACTION ITEM	TIMELINE	STATUS
	3.2 Establish an agri-entrepreneur mentor program in conjunction with the York Small Business Enterprise Centre to support existing and potential entrepreneurs with mentoring and business guidance.	Medium-term	Complete/ On-going
	3.3 Investigate and identify opportunities to develop a regional food incubator/hub to support fruit and vegetable value-adding opportunities to increase farm revenue.	Long-term	Complete/ On-going
4. Leverage within the GTA and proximity to customers through direct farm marketing to meet demand for local food production			
	4.1 Facilitate the revitalization of the York Farm Fresh Organization to support the growth of York's agri-food sector and demand for farm-direct production.	On-going	Complete
	4.2 Continue annual production of the York Region Farm Fresh Guide Map and Pumpkin Pie Trail Map to promote and raise awareness of locally produced agricultural products.	Short-term	Complete
	4.3 Continue to support and encourage the provision of community gardens and/or urban agriculture projects that promote agricultural awareness in settlement/urban areas.	On-going	Complete/ On-going
	4.4 Support the development of agri-tourism programming such as "Farm Tour Hikes".	On-going	Complete/ On-going
	4.5 Raise awareness around the diversity of production and processing found in the Region through promotional materials (e.g. Ontario's 'soup and salad bowl' in the Holland Marsh; world crop production).	On-going	Complete/ On-going
	4.6 Revisit York Region's Food Charter and broaden support across the agri-food sector.	On-going	Underway
	4.7 Develop local food-sourcing policies for Regional facilities and encourage other public sector agencies within the Region to adopt similar policies.	Medium-term	Planned

STRATEGIC GOAL	ACTION ITEM	TIMELINE	STATUS
	4.8 Facilitate relationship building between producer, processors and retail companies that support local food production (e.g. Longos, Metro).	Medium-term	Complete/ On-going
	4.9 Communicate and promote existing online tools to help connect producers with the local market through workshops and seminars.	Medium-term	Complete/ On-going
	4.10 Partner with Rouge National Urban Park and Toronto Region Conservation to increase collaboration and learning amongst agri-businesses and potential new entrants into agri-tourism through hikes, education programs and/or peer-to-peer learning groups.	Medium-term	Underway
5. Provide support for business retention and expansion of primary agriculture production within York Region			
	5.1 Conduct Business Retention and Expansion studies (led by OMAFRA) to assess and evaluate the needs and opportunities in each lower-tier municipality with a focus on agri-food related services and businesses	Medium-term	Planned
	5.2. Conduct a study and develop a long-term sustainability strategy for the Holland Marsh through collaboration with stakeholders and partners (e.g. Simcoe County, Lake Simcoe Regional Conservation Authority, Holland Marsh Growers' Association, OMAFRA, etc.).	Medium-term	Complete
	5.3. Work with industry and government agencies to support the employment of seasonal and foreign agricultural workers, with respect to working conditions, accommodations, cultural services and accessibility to workers.	On-going	Complete/ On-going
	5.4. Undertake an equine industry study and consultation to identify barriers and opportunities for growing the Region's equine industry including research on successes in other regions (e.g. Greater Toronto Area, Caledon, Halton Hills, etc.).	Medium-term	New
	5.5 Explore opportunities to increase the production of world crops within York Region.	Medium-term	Complete/ On-going

STRATEGIC GOAL	ACTION ITEM	TIMELINE	STATUS
	5.6 Continue support to improve broadband connectivity across the Region through the Region's Broadband Strategy; particularly in rural and agricultural areas to help businesses develop and grow.	On-going	Complete/ On-going
	5.7 Develop template and prepare annual report card to record and evaluate achievements.	On-going	Complete/ On-going
	5.8 Conduct a five-year review of York Region's Agriculture and Agri-Food Sector Strategy.	Long-term	Planned

2021 ACHIEVEMENTS WITH COMMUNITY PARTNERS

2021 AGRI-FOOD FORUM

IN PARTNERSHIP WITH:



200+

registered attendees

600,000+

social media impressions

60+

speakers throughout the two-day event

99%

of attendees indicated the forum exceeded or met their expectations

125,000+

individuals reached on social media

2,500

visits to event website



YORK FARM FRESH

100,000+

Farm Fresh Guide Maps delivered throughout York Region

The [York Farm Fresh Multilingual App](#) features 36 Farms and eight Farmers' Markets. In addition to the English version it is translated into 7 languages:

- CHINESE (SIMPLIFIED)
- FRENCH
- CHINESE (TRADITIONAL)
- FARSI
- RUSSIAN
- TAMIL
- URDU



YORK REGION FOOD AND BEVERAGE ACCELERATOR



\$900,000

in total revenue generated by the program participants

\$7.2M

in funding leveraged by program participants

450+

new stores now carrying products supported in the program

20

companies participated in two cohorts



VIDEO COLLABORATIONS



Profile and celebration of carrot production in the Holland Marsh



Virtual tour of York Region's agriculture and agri-food sector

On June 30, 2022 Regional Council made the following decision:

1. The Regional Clerk circulate this report to the Clerks of the local municipalities and the Ministry of the Environment, Conservation and Parks.

The original staff report is attached for your information.

Please contact David Szeptycki, Director of Environmental Promotion and Protection at 1-877-464-9675 ext. 75723 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1

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Our Mission: **Working together to serve our thriving communities – today and tomorrow**

The Regional Municipality of York

Committee of the Whole
Environmental Services
June 16, 2022

Report of the Commissioner of Public Works

2021 Annual Waste Management Report

1. Recommendation

1. The Regional Clerk circulate this report to the Clerks of the local municipalities and the Ministry of the Environment, Conservation and Parks.

2. Summary

This report provides Council with a copy of the 2021 Annual Waste Management Report (Attachment 1) which summarizes the Region's waste reduction and diversion initiatives and provides an update on implementation of the Integrated Waste Management Master Plan (the SM4RT Living Plan). It supports the Region's enhanced approach to tracking, measuring, and reporting on the performance of its waste management system.

This Annual Report is submitted to the Ministry of the Environment, Conservation and Parks each year to satisfy the Durham York Energy Centre Environmental Assessment condition for diversion reporting.

Key Points:

- The Region and its local municipal partners achieved 92% diversion from landfill in 2021, again exceeding the Regional Official Plan goal of 90% waste diversion from landfill. This includes all tonnes collected through local municipal curbside programs, waste depot diversion programs and tonnes managed through energy-from-waste
- A diversion rate of 65% has been reported by the Region for 2021 and is awaiting verification by the Resource Productivity and Recovery Authority (RPRA). The Province does not recognize energy-from-waste as diversion and, as such, the diversion rate reported by RPRA does not include energy-from-waste tonnages
- Waste generation rates stabilized following sharp increases in 2020, due to the pandemic. Curbside green bin generation rate only increased slightly, while there was a small decrease in the garbage generation rate in 2021

- \$100,000 awarded to six community projects through the Circular Economy Initiatives Fund, demonstrating the Region's commitment to building community capacity in the circular economy

3. Background

SM4RT Living Plan drives actions to advance circular economy in York Region

As approved by Council in [April 2020](#), the updated SM4RT Living Plan establishes a vision and long-term targets to move towards a world without waste. With a strong focus on partnerships and innovation, the Plan continues to guide waste policy and programming in the Region and emphasizes the importance of transitioning to a circular economy. Objective 3 in the SM4RT Living Plan recognizes that grassroots support is needed to drive such change; the Region therefore remains committed to strengthening partnerships with local municipalities, community groups and businesses through programs such as the Circular Economy Initiatives Fund and a circular economy stakeholder group.

York Region and its local municipal partners continue to be leaders in diversion

Despite ongoing recovery from COVID-19 impacts, York Region remains a leader in the field. Together with its local municipal partners, the Region again exceeded the Official Plan goal of 90% diversion from landfill, achieving 92% diversion from landfill in 2021. The Region has exceeded its diversion from landfill target since the target was established in 2016; however, the rate has decreased slightly from the 2020 rate of 93%. The diversion from landfill rate is reported annually to the Ministry of the Environment, Conservation and Parks to satisfy the Durham York Energy Centre Environmental Assessment condition for diversion reporting. It includes all tonnes collected through local municipal curbside programs, waste depot diversion programs and tonnes managed through energy-from-waste.

As seen in Table 1 below, York Region also leads large urban municipalities in Ontario in diversion as reported by the Resource Productivity and Recovery Authority. Since 2012, York Region has ranked first among large urban municipalities, verified through the Resource Productivity and Recovery Authority Annual Datacall. In 2020 (the latest year for which there is verified data) York Region achieved the highest verified diversion rate of 66% in the large urban municipal diversion category. The Region has submitted a 2021 diversion rate of 65% to the RPRRA for verification. This provincial diversion rate differs from the York Region diversion from landfill rate (referred to above), as energy-from-waste is not recognized by the Resource Productivity and Recovery Authority as diversion.

Table 1
2020 Large Urban Municipal Verified Diversion Ranking

Rank	Municipality	2020 Diversion Rate
1	Regional Municipality of York	65.8%
2	Regional Municipality of Halton	54.5%
3	Regional Municipality of Peel	51.5%
4	City of Toronto	52.2%
5	City of London	43.9%
6	City of Hamilton	41.6%

4. Analysis

Waste generation rates stabilized in 2021 after significant increase in 2020 due to the pandemic

In 2020, York Region experienced higher than typical tonnages at the curb. There were significant changes in consumption and waste disposal behaviours at home as the pandemic impacted various aspects of life, including jobs and recreational activities.

In 2021, waste generation rates plateaued with green bin generation rate recording a slight increase from 92 kilograms per person in 2020 to 93 kilograms per person in 2021, and garbage generation rate decreasing slightly from 91 kilograms per person in 2020 to 90 kilograms per person in 2021 (Attachment 1, page 9). Many people continued to work from home throughout 2021 and it appears that consumption and waste disposal habits formed during the early part of the pandemic are still impacting waste generated at the curb. The Region and its local municipal partners will continue to monitor waste generation trends to understand medium and long-term impacts of COVID-19.

Region continues to anticipate waste trends and plan for long-term capacity needs

The Region is currently procuring long-term organics processing. As seen in Table 2 below, there are several interim contracts in place to ensure the Region's processing needs are being met.

Table 2
Status of Region's Long-term Processing Contracts

Contract	Facility Details	Status Update
Interim organics processing contracts	Convertus – London, Ontario – processing up to 2027	Renewal term activated under Commissioner as per Council
	GFL – Lafleche - Moose Creek, Ontario – processing up to 2027	Renewal term activated under Commissioner as per Council
	Cornerstone – Elmira and Leamington, Ontario processing up to 2027	Approved by Council in April CAA report
Energy from Waste (EFW) contracts	Emerald – Brampton, Ontario – current contract term expires September 2023	Update is on June Council agenda in a Private Report
	Covanta Niagara – Niagara Falls, New York – current contract term expires September 2023	

Region and local municipalities continue to adapt programming to provide services while maintaining safety measures

Throughout 2021, the Region continued to work with local municipal and community partners to maintain waste operations and deliver waste reduction and education programs. Despite the ongoing pandemic, the Region's waste depots returned to pre-pandemic service levels by reinstating the concrete recycling program and accepting cash payments. The depots remained compliant with COVID-19 safety protocols to ensure the health and safety of workers and residents. Attachment 1 (page 18) outlines site visit trends at the Region's Community Environmental Centres (CECs) and waste depots.

The 2021 Annual Waste Management Report (pages 20-21) showcases community engagement activities across the Region. As the pandemic evolved and some restrictions eased, a few community partners were able to restart in-person reuse initiatives in 2021 with strict adherence to health and safety guidelines. Towards the end of the year, one in-person Repair Café event was hosted by NewMakelt in Newmarket. Vaughan Public Library also opened a new Lendery location, ending the year with 19 items in its inventory and 35 active

members. Newmarket Public Library reopened its Lendery and had 172 active members and 84 items in its inventory at the end of 2021.

York Region’s leadership in circular economy concept supports post-pandemic recovery and long-term economic, environmental and social benefits

As approved by Council in [May 2022](#), a circular economy supports the Region’s Vision. One of the key action areas identified in the Region’s Circular Economy Roadmap is ‘Community Capacity and Connections’, highlighting the Region’s commitment to empowering the community through collaborations, education and investment.

In 2021, the Region launched the Circular Economy Initiatives Fund (CEIF), which provided funding of \$5,000 to \$25,000 to [six non-profit organizations](#) to support projects that reduce waste and promote a circular economy (Table 3).

Table 3
Circular Economy Initiatives Fund Projects

Organization	Project
Circular Innovation Council	Community-based virtual hub to encourage residents to share, reuse, and repair
Free Geek Toronto	Series of electronic waste collection and repair events to encourage giving unwanted technology a second life
Furniture Bank	Campaign to raise awareness of furniture removal services to divert household items from landfill
Impact Zero	A searchable, detailed directory of circular businesses in York Region
Stouffville Strawberry Festival	Reducing waste at the 2022 Strawberry Festival
Willowgrove	Series of workshops teaching children to construct their own compost and greenhouse systems

All six funded projects are expected to help reduce residential waste and support circular economy practices. The Region has started accepting applications for a second round of funding for projects taking place in 2023.

Plans are also underway to establish a working group composed of circular economy champions from local businesses and organizations who will support and facilitate circular opportunities in their own sectors locally. Building community knowledge and capacity on circular economy as communities recover from the pandemic will help embed a systemic

shift that will build long-term resilience. This shift will generate business and economic opportunities, while providing environmental and social benefits, such as health and ecosystem balance, job creation, greater affordability, food security, and community empowerment.

York Region remains engaged in consultations as federal and provincial governments move forward with waste regulations

Regional staff continue to monitor the evolving waste landscape in Canada, providing feedback on various proposed legislation at both the federal and provincial levels. Table 4 highlights regulatory changes and consultations in 2021 and early 2022 and the Region's feedback/position.

**Table 4
Regulatory Advocacy Work in 2021**

Administrative Penalties Regulation

- September 2021: Ministry proposed a new administrative penalties regulation to help ensure that regulated producers, manufacturers and importers comply with requirements for collection and end-of-life management of materials they supply in Ontario
- [November 2021](#): York Region responded with recommendations, including providing municipalities exemption from producer requirements

Blue Box

- April 2021: Region issues letter to Minister of Environment, Conservation and Parks, copying the Premier's office, to advocate for release and finalization of the Blue Box regulation
- [June 2021](#): Ministry released the final regulation to make producers fully responsible for the Blue Box Program by the end of 2025
- April 2022: Ministry announced amendments to the Blue Box regulation including the removal of the requirement on Producer Responsibility Organizations (PROs) to create an allocation table. Instead PROs representing more than 66% of Blue Box tonnes are required to submit an operational plan for how they will operate the system by July 1, 2022. Also included was an exemption for newspaper publishers from collection, management, and promotion and education requirements

Hazardous and Special Products

- February 2021: proposed regulations released
 - [March 2021](#): York Region and local municipalities responded with feedback expressing extreme disappointment that the draft did not include key material types and lacked targets
 - [June 2021](#): Ministry posted final producer responsibility regulation
 - October 2021: transition to individual producer responsibility
-

Single-Use Plastics

- December 2021: Federal government released Draft Federal Single-Use Plastics Prohibition Regulations
- [March 2022](#): York Region and local municipalities responded with feedback expressing concern regarding the lack of clarity around applicability to compostable plastic alternatives and recommending further exploration of accessibility exemptions

Tires, Batteries and Electrical and Electronic Equipment (EEE)

- November 2021: Ministry posted Proposed Amendments to the Producer Responsibility Regulations for Tires, Batteries and Electrical and Electronic Equipment
- January 2022: York Region responded with recommendations, including maintaining reporting, third-party auditing, record keeping and enforcement measures to ensure effective oversight

5. Financial

COVID-19 related tonnages and inflation had an additional \$2.2M impact on Region's waste management costs in 2021

The additional waste generated during the pandemic resulted in an additional \$2.2 million in the department's net operating budget in 2021. In late 2021 and continuing in 2022, inflationary pressures are being felt in waste management's operating activities. These inflationary increases impact both processing and haulage costs as fuel prices escalate. Table 5 outlines the impact of COVID-19 on the Region's waste program costs in 2021.

Table 5
2021 Net Operating Impact of COVID-19 by Waste Stream

Waste Stream	Additional Tonnage Due	
	to COVID-19	Net Operating Impact (000s)
Garbage	7,500	\$639
Blue Box	3,600	(\$51)
Organics	9,800	\$1,521
Total	20,900	\$2,109

Region and local municipalities continue to deliver high quality waste management services to households for less than \$1/day

In 2021, the Region managed over 380,000 tonnes of material from curbside and depot programs at an average Regional cost of \$125 per tonne. Despite the additional costs due to the pandemic presented in Table 5, the Region and local municipalities continue to deliver leading waste management programs and services for about \$300 per household per year. The annual cost of this service is less than the cost for comparable utilities such as cell phones, electricity and natural gas.

Blue Box revenues increased in 2021 due to higher commodity prices

Commodity markets for blue box materials have been robust and led to significantly higher blue box revenues in the past year. This has helped offset higher waste program costs due to COVID-19. The average revenue for one tonne of blue box material increased from approximately \$70 per tonne in 2020 to over \$180 per tonne in 2021, resulting in total blue box revenue of \$10.5M in 2021. These elevated prices have continued into 2022 and will likely persist until supply chain issues are alleviated.

Changes in the formula for calculating the distribution of steward funding also came into effect in 2021. Municipalities will now receive 50% of their net verified costs as reported through the prescribed datacall until they transition into the new producer responsibility system. This approach simplifies the process, replacing the Municipal Funding Allocation Model previously used by the Resource Productivity and Recovery Authority to allocate funding based on various factors, including cost and performance comparison between municipalities. The impact to the Region is negligible, with an approximate 1% reduction in funding. This reduction is due primarily to the removal of best practices scoring, on which the Region would score high in the past.

6. Local Impact

Continued collaboration with local municipal partners advances efforts to improve quality of recyclables at the curb

In 2021, York Region continued to work with its local municipal partners to manage blue box contamination, including addressing COVID-19 related personal protective equipment (ex. masks disposed in the blue box). Waste audits show a slight increase in the Region's contamination rate, moving from 18.8% in 2020 to 19.6% in 2021. Across the Region, local municipal contamination rates ranged from 16% to 25%. Local municipalities are committed to sharing blue box contamination messaging through communication channels that work best in their communities. As efforts move forward, the Region respects local municipalities' autonomy as each community has unique problematic materials and approaches to addressing contamination. Going forward, staff will continue to monitor and track contamination progress through waste audits and monitoring at the Materials Recovery Facility.

York Region's Blue Box Program is scheduled to transition to Ontario's full producer responsibility in 2025. Once the transition occurs, materials eligible for blue box will expand to include some materials not accepted in the Region's current Blue Box Program, such as plastic bags, coffee cups, and styrofoam. To minimize confusion for residents, contamination reduction efforts will consider the future Blue Box Program under the producer responsibility framework.

Residents and businesses support plans by Region and local municipalities to reduce reliance on single-use items

Addressing single-use items is part of York Region's strategy to advance the circular economy. The SM4RT Living Plan outlines actions that target reduction of single-use items, aligning with the federal government's direction. As shared with Council in [March 2022](#), the Region and its local municipalities are developing supports to help businesses, residents and local accessibility organizations implement voluntary changes and adapt to the federal government's planned ban on six categories of single-use plastics.

Consultations with businesses are currently underway to inform development of communication materials aimed at reducing reliance on single-use items and easing compliance with federal regulation when it comes into effect. Regional staff also consulted the York Region Accessibility Advisory Committee and stakeholder organizations for insights on how these changes could affect the disability community. Information gathered is being used to inform creation of educational resources, advocacy responses and future programming.

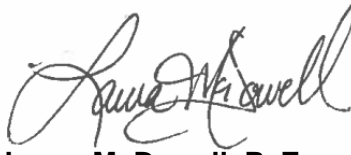
Staff expect to begin implementing single-use items reduction programming with residents and businesses later in 2022. Plans include collaborating with local municipalities and partners to develop and launch an "ask first" program pilot supported with targeted communications and education efforts.

7. Conclusion

Performance of the Region's integrated waste management system in 2021 shows that York Region remains a leader. Based on diversion rates and commitment to advancing a circular economy, the Region and its local municipal partners are well placed to move towards its visionary goal of a world in which nothing goes to waste. The Region's emphasis on a circular economy supports a strong recovery from the impacts of the pandemic. Waste generation rates have stabilized, and programs and strategies are already in place to help increase residents' knowledge, influence behaviours and promote a mindset shift towards circularity.

For more information on this report, please contact David Szeptycki, Director of Environmental Promotion and Protection at 1-877-464-9675 ext. 75723. Accessible formats or communication supports are available upon request.

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Chief Administrative Officer

May 26, 2022
Attachments (1)
13755138



2021 ANNUAL WASTE MANAGEMENT REPORT

PARTNERSHIPS DRIVING
Reduction | Reuse | Recycling | Recovery



2021 AT-A-GLANCE



139,133
TONNES
RESIDUAL WASTE
SENT TO ENERGY-FROM-
WASTE FACILITIES



112,350
TONNES
ORGANIC
WASTE
PROCESSED



54,954
TONNES
BLUE BOX
RECYCLING
MARKETED



42,029
TONNES
LEAF &
YARD WASTE
COMPOSTED



1,913
TONNES
DEPOT
DIVERSION
RECYCLED



1,365
TONNES
HOUSEHOLD
HAZARDOUS
WASTE
PROPERLY DISPOSED



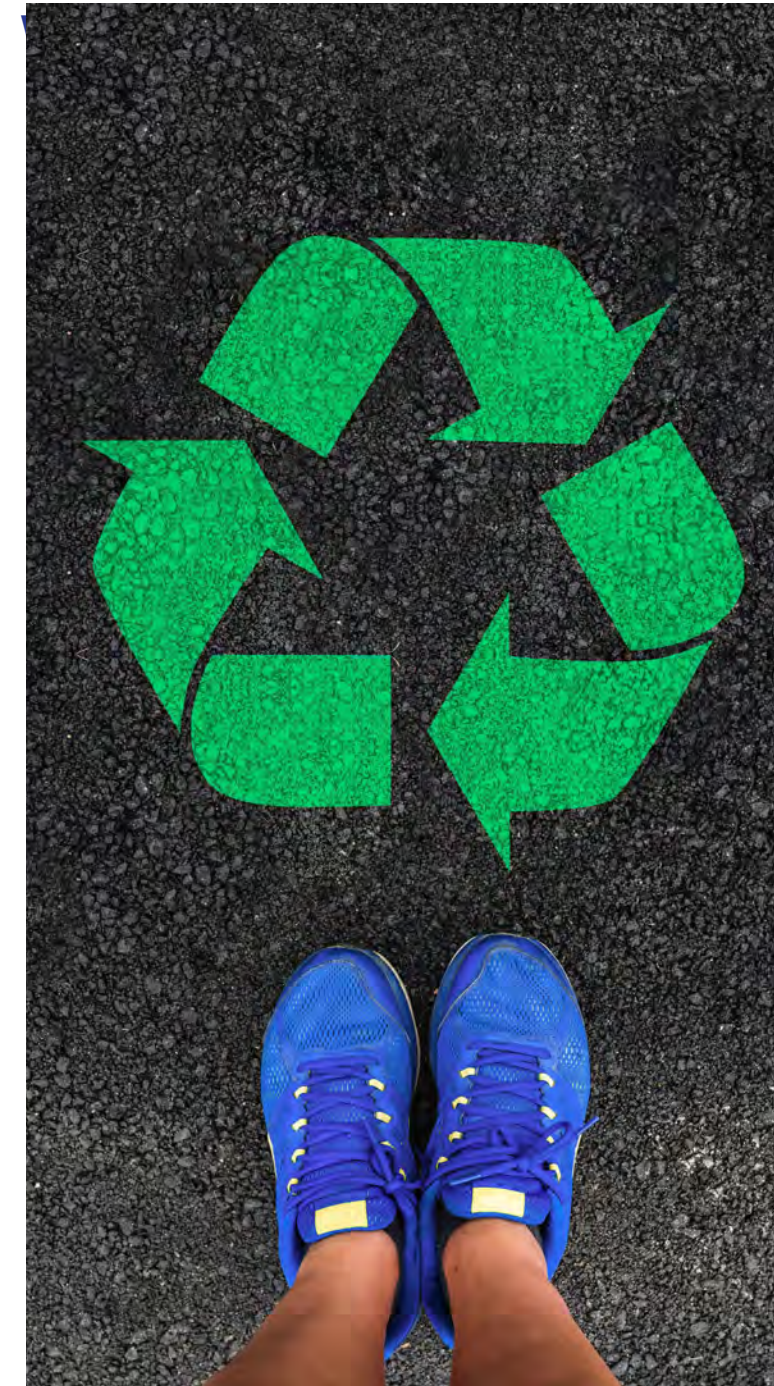
1,085
TONNES
ELECTRONIC
WASTE
RECYCLED



92% DIVERSION FROM LANDFILL

Residents of the Regional Municipality of York are part of an extensive integrated waste management system delivered together with our local cities and towns. In collaboration with community partners, new and innovative waste programs that emphasize the circular economy are being implemented through the updated Integrated Waste Management Master Plan (SM4RT Living Plan), showcasing York Region's leadership in sustainable waste management. Regional and local municipal Councils have made waste reduction and diversion a priority and continue to advocate to provincial and federal governments on waste management issues. The Region offers residents access to many opportunities to dispose and divert a wide variety of materials; as a result, in 2021 York Region diverted 92% of waste from landfill.

In collaboration with community partners, new and innovative waste programs that emphasize the circular economy are being implemented through the updated Integrated Waste Management Master Plan (SM4RT Living Plan), showcasing York Region's leadership in sustainable



INTRODUCTION

The Regional Municipality of York’s 2021 Annual Waste Management Report summarizes the integrated waste management system and the amount of material collected and processed. It also highlights the progress being made on the objectives set out in the SM4RT Living Plan. This report will be submitted to the Ministry of Environment, Conservation and Parks to satisfy the Durham York Energy Centre Environmental Assessment condition for diversion reporting.

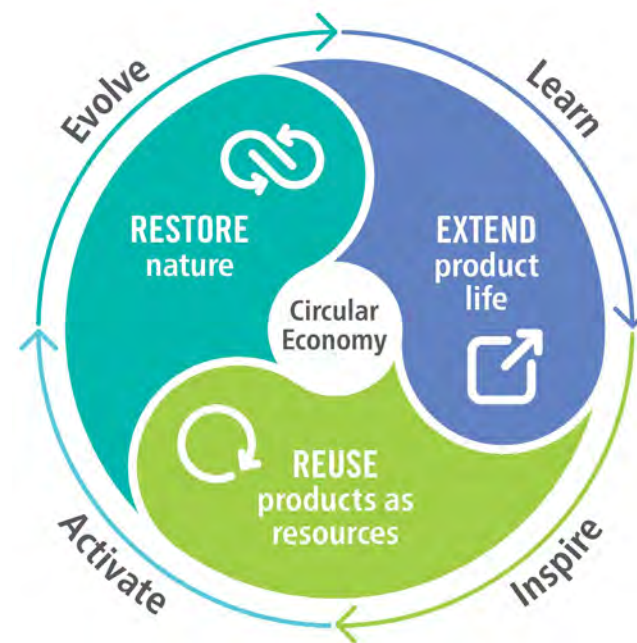
The Region delivers programs and services to more than 1.2 million residents, across 394,000 households in nine cities and towns: the Towns of Aurora, East Gwillimbury, Georgina, Newmarket, Whitchurch-Stouffville, the Township of King and the Cities of Markham, Richmond Hill and Vaughan.

COVID-19 posed challenges and impacted the lives of Canadians for a second year in 2021. York Region residents and staff faced a state of emergency declaration with periods of varying levels of restrictions throughout the year. York Region, in partnership with its local municipalities, continued to demonstrate adaptation and resiliency, by providing consistent service to residents.

In 2021, York Region experienced a plateau in tonnages for most materials collected at the curb. Overall, the Region’s waste depots saw an increase in visitors compared to 2020. The Region also successfully launched the Circular Economy Initiatives Fund (CEIF) and awarded funding to six recipients with innovative, community driven projects, focused on reducing residential waste and advancing the circular economy. By the end of 2021, the Region was progressing towards a new normal; many programs were reinstated while observing COVID-19 safety protocols and public engagement continued virtually.

Circular Economy Initiatives Fund Recipients

Circular Innovation Council
Free Geek Toronto
Furniture Bank
Impact Zero
Whitchurch-Stouffville Strawberry Festival
Willowgrove



Learn more at york.ca/circulareconomy

The SM4RT Living Plan: Objectives and Actions

OBJECTIVE 1: Successfully navigate legislative changes

Responding flexibly and using legislative changes to continually improve SM4RT Living.	●	Region and local municipalities leverage existing framework for collaborative decision-making to navigate legislative changes.
	●	Region and local municipalities ensure compliance with changing legislation (e.g., Food and Organics Waste Policy Statement and Resource Recovery and Circular Economy Act), including reviewing Official Plan and bylaws.
	●	Local municipalities and Region explore legal mechanisms to ensure producers manage their waste as required in the Region.
	●	During the transition to full producer responsibility, Region and local municipal partners continue to monitor and address blue box contamination and Region ensures the Materials Recovery Facility performs as needed.

OBJECTIVE 2: Use resources and infrastructure more strategically to achieve SM4RT Living

Focusing efforts, innovating and improving coordination to create a more seamless, cost-effective system and do more with available resources.	●	Region and local municipalities leverage technology to improve data collection, analysis and information sharing from facilities and operations, in support of greater efficiency and more strategic decisions.
	●	Region and local municipalities maintain leadership in waste diversion by researching and sharing best practices, approaches and technologies, particularly for multi-residential buildings. Local municipalities take the lead in testing and applying new approaches and sharing lessons learned.
	●	Local municipalities include standards for waste diversion and material storage and collection in the approval process for new multi-residential developments.
	●	Region contracts for anaerobic processing capacity to diversify its portfolio and inform future investment decisions.
	●	Region and local municipalities work towards consistent messaging and education to reduce food waste, including promoting backyard composting to help manage SSO pressures and costs.
	●	Local municipalities and Region apply best practices and tools to work towards consistency in waste collection services, messaging, enforcement and performance monitoring.
	●	Region works with other Ontario municipalities to standardize record-keeping and data reporting across the province to provide consistent evidence for advocacy positions.
	●	Region secures long-term contracts to recover energy from residual materials.

OBJECTIVE 3: Inspire people across the Region to embrace SM4RT Living and advance the circular economy

The value of partners and pioneers in igniting the uptake of SM4RT Living and the circular economy across our communities.	●	Region and local municipalities encourage grassroots community initiatives that align with SM4RT Living philosophy.
	●	Region improves support for partnerships, including establishing a \$100,000 Circular Economy grant program that would help community partners, new social enterprises and businesses advance SM4RT Living Plan goals.
	●	Region identifies and promotes how SM4RT Living connects to broader Regional initiatives around healthy communities and social well-being and builds linkages where appropriate.
	●	Through strategic partnerships, the Region and local municipalities support opportunities for residents to repair, share, reuse and repurpose items.
	●	Region and local municipalities work to implement an “Ask First” voluntary program across the Region to reduce single-use items, and show leadership by reducing consumption at their own facilities. Region and local municipalities assess results of “Ask First” program, review federal and provincial policies if available, and determine if a mandatory approach is needed.
	●	Region and local municipalities advocate for provincial and/or federal policies and legislation that advance the circular economy.
	●	Region researches, consults and shares findings to build understanding of the circular economy in York Region and how it connects to SM4RT Living. Region encourages residents, not-for-profit groups, businesses and others in York Region to move to the circular economy.

● ONGOING ● INITIATED ● DELAYED

DIVERSION ACHIEVEMENTS



Five Year Trend: York Region Remains a Leader in Ontario with Verified Diversion Rate of 66% in 2020

York Region, in partnership with its local cities and towns, submits an annual Datacall to the province through the Resource Productivity and Recovery Authority (RPRA). The information is used to determine blue box costs and to allocate funding from producers to assist with the cost of operating the Blue Box Program. Each year RPRA releases a ranking of municipal diversion rates for Ontario based on the Datacall results.

York Region leads once again in the large urban category with 66%.

Resource Productivity and Recovery Authority Annual Waste Diversion Rate

	1st for Large Urban Municipalities		68%
	1st for Large Urban Municipalities		68%
	1st for Large Urban Municipalities		66%
	1st for Large Urban Municipalities		66%
	Pending Verification		65%*

All values are rounded. RPRA does not recognize energy-from-waste as diversion.

*The 2021 diversion data presented is pending verification by the RPRA at time of printing.

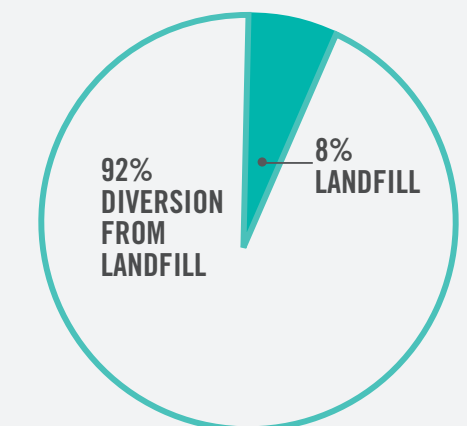
Table 1: Total Tonnes Collected

Material	Tonnes Collected				
	2017	2018	2019	2020	2021
Residual Waste (Garbage)	134,249	124,319	129,144	145,464	145,435
Organics	97,877	99,065	100,874	112,403	114,075
Blue Box	85,298	83,526	78,243	79,087	78,417
Leaf and Yard Waste	39,477	42,287	42,814	44,216	42,029
Other Diversion - Depots	5,061	2,580	2,659	1,612	1,913
Household Hazardous Waste	1,256	1,219	1,297	1,459	1,365
Electronics	1,344	1,124	1,117	1,205	1,085

*Note: total blue box and organics tonnes collected at curbside and depots include contamination

York Region continues to exceed the Regional Official Plan goal of 90% waste diversion from landfill.

In 2021, York Region achieved 92% waste diversion from landfill, which includes all tonnes collected through curbside and depot diversion programs and tonnes managed through energy-from-waste.



WASTE GENERATION



TARGETS



GREEN BIN

71 kilograms per capita by 2031



GARBAGE

66 kilograms per capita by 2031

Waste Reduction Targets are Tracked by the Waste Generation Rate

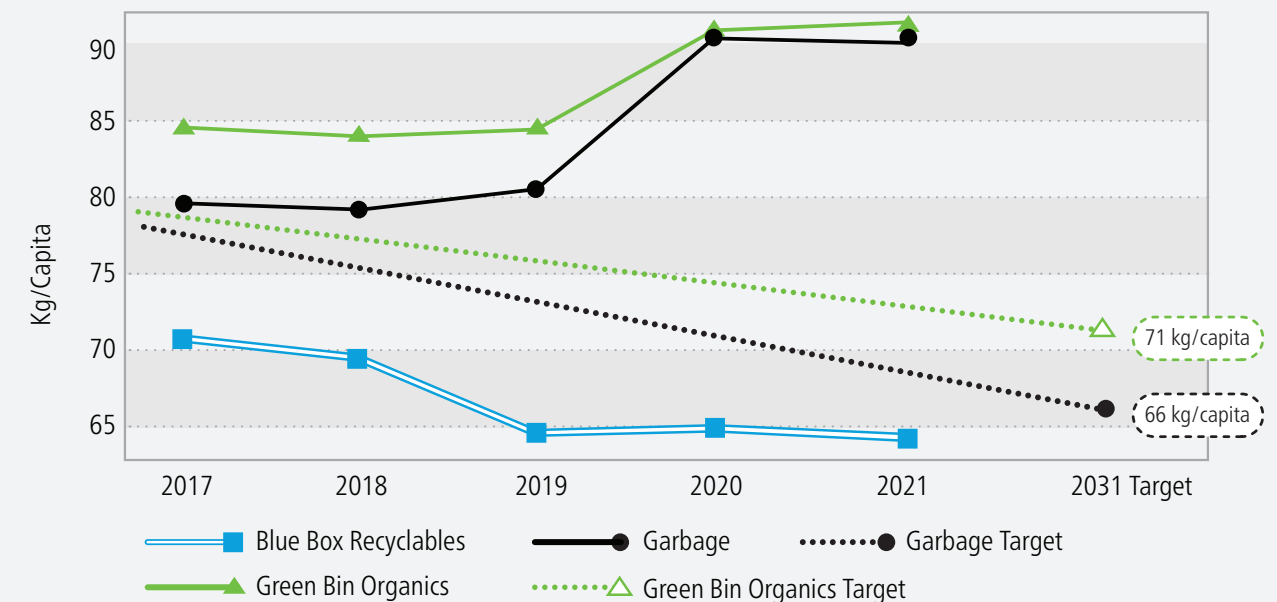
The SM4RT Living Plan's waste reduction targets are tracked by the waste generation rate, allowing the Region to evaluate its progress. The waste generation rate measures the tonnage of waste per person (kg/capita) collected curbside. During the second year of the pandemic, there continued to be a significant amount of waste produced at home compared to pre-pandemic levels as over 50% of residents continued to work remotely. At this time the long term impacts of the pandemic on waste generation rates is unknown, however these elevated levels could continue as 44% of residents surveyed expected to be working from home into early 2022¹. As seen in Graph 1, the overall regional waste generation rate has leveled out after the sharp increase seen at the start of the pandemic in 2020. There was only a small increase in curbside green bin and slight decrease in curbside garbage generation rates in 2021. The blue box generation rate also showed a slight decrease in keeping with the downward trend prior to the pandemic.

¹ 2021 Annual Community Opinion Report conducted by Forum Research, York Region, Feb 2021.

In 2021, garbage and green bin waste generation rates in the southern cities remained similar to 2020 generation rates. In the northern towns, for the most part, residual waste and green bin waste generation rates increased. In the southern three cities, continued public health restrictions and residents continuing to work from home may have resulted in waste generation rates remaining steady. In the northern towns, residual waste generation rates may have been influenced by changes in bag limits with most of the towns increasing garbage bag limits. The Town of Aurora had a notable decrease in its garbage generation rate compared to 2020. In the fall of 2021, Aurora began promoting a garbage bag tag program that would require residents to purchase a bag tag if they wished to place more than three bags curbside on waste collection days. Although enforcement did not begin until early 2022, this educational campaign may have influenced residents in 2021, resulting in a lower garbage generation rate.

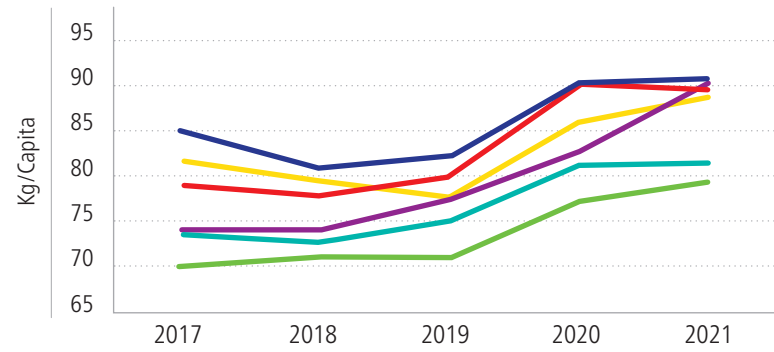
Overall waste generation rates appear to be leveling off in 2021. The Region and its local municipal partners will continue to monitor waste generation trends to understand the long-term impacts of COVID-19.

Graph 1: York Region Residential Curbside Waste Generation Rate (kg/capita)



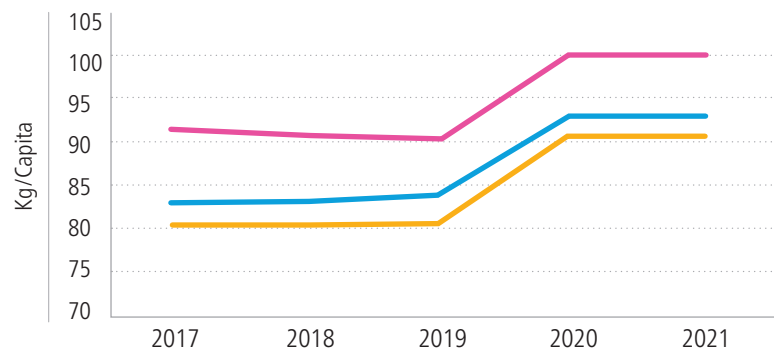


Graph 2: Northern Towns' Green Bin Waste Generation Rate (kg/capita)



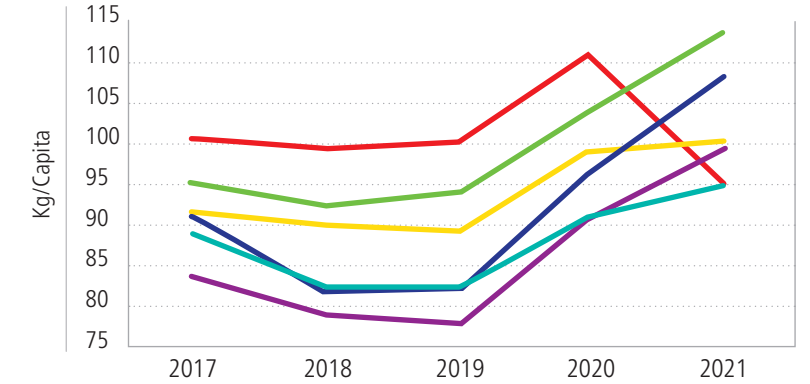
Local Town	2017	2018	2019	2020	2021
Aurora	78	77	80	90	88
East Gwillimbury	74	74	77	83	91
Georgina	70	71	71	76	77
King	85	81	83	90	92
Newmarket	74	73	75	81	83
Whitchurch-Stouffville	82	79	77	86	87

Graph 3: Southern Cities' Green Bin Waste Generation Rate (kg/capita)



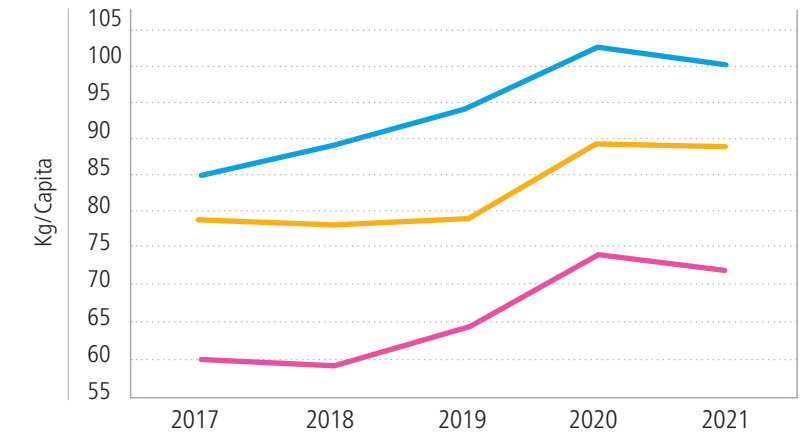
Local City	2017	2018	2019	2020	2021
Markham	92	91	91	100	100
Richmond Hill	80	80	81	91	91
Vaughan	83	84	85	93	93

Graph 4: Northern Towns' Residual Waste (Garbage) Generation Rate (kg/capita)



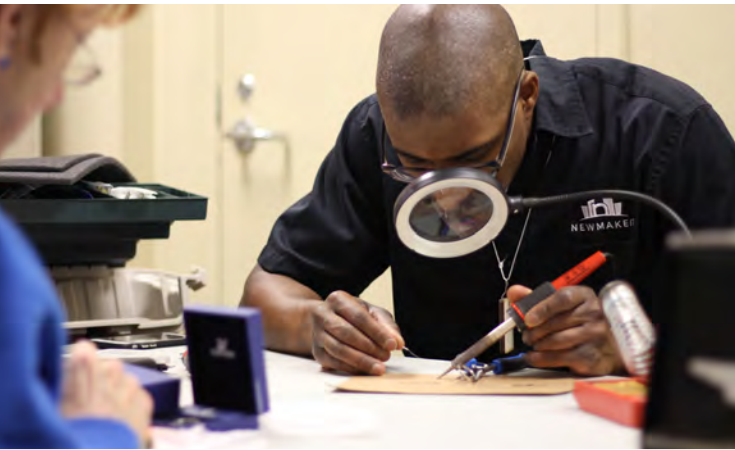
Local Town	2017	2018	2019	2020	2021
Aurora	101	99	100	111	95
East Gwillimbury	84	78	77	91	99
Georgina	95	93	94	104	114
King	91	82	83	96	108
Newmarket	88	83	83	91	95
Whitchurch-Stouffville	92	90	89	98	101

Graph 5: Southern Cities' Residual Waste (Garbage) Generation Rate (kg/capita)



Local City	2017	2018	2019	2020	2021
Markham	60	59	64	74	72
Richmond Hill	78	77	78	89	88
Vaughan	85	88	94	103	100

PARTNERSHIPS



Local Municipalities and Community Partners Help the Region Deliver Innovative Programs

York Region and its nine local cities and towns continue to collaborate to provide integrated waste management services and programs focusing on reduction, reuse and recycling initiatives. The Region recently strengthened community partnerships by providing funding to six community projects through the Circular Economy Initiatives Fund; demonstrating the Region’s commitment to building community capacity in the circular economy.

In 2021, several cities expanded their organics programs. Most notably, the City of Vaughan launched a new organics collection service to multi-residential buildings (apartments/condominiums), with the goal of reducing its organic waste by 50% by 2025, in compliance with Ontario’s Food and Organic Waste Policy Statement. Many local municipalities also offer drop off sites for special waste streams such as batteries, textiles and electronic waste at municipal facilities, increasing diversion opportunities and convenience for residents.

Community partnerships drive innovative programs that promote waste prevention and community building in the Region.

Waste Reduction and Collection Programs Provided by Local Cities and Towns

Collection Type	Waste Type	Aurora	East Gwillimbury	Georgina	King	Markham	Newmarket	Richmond Hill	Vaughan	Whitchurch-Stouffville
Curbside Collection	Garbage, Recycling, Green Bin, Leaf and Yard Yard	•	•	•	•	•	•	•	•	•
	White Goods	•	•	•	•	•	•	•	•	•
	Bulky Items	•	•	•	•	•	•	•	•	•
Special Programs	Textile Diversion	•	•	•	•	•	•	•	•	•
	Education and Outreach	•	•	•	•	•	•	•	•	•
Multi-Residential Collection	Garbage	•		•		•	•	•	•	•
	Recycling	•		•		•	•	•	•	•
	Green Bin			•		•		•	•	
	Electronic Waste	•				•				•
	Batteries	•				•				
Public Spaces	Recycling	•	•			•	•	•	•	•
	Garbage	•	•	•	•	•	•	•	•	•
Municipal Facilities	Recycling	•			•	•	•		•	
	Green Bin	•				•	•	•		
	Batteries	•			•	•	•	•	•	



TEXTILES

200

MUNICIPAL COLLECTION BINS

678

TONNES OF TEXTILES COLLECTED



COMPOSTING

879

COMPOSTERS SOLD

88

TONNES OF ORGANICS DIVERTED



BLUE BOX



DID YOU KNOW?

Most people want to do the right thing but on average an estimated 20% of what gets put in the blue box doesn't belong there. This contamination is an ongoing issue and poses challenges to our recycling system. For details on what can go in the blue box visit york.ca/bluebox

What Happens After Recyclables Leave The Curb?

As a two-tier municipality, the Region's local cities and towns collect the blue box materials at the curb; this includes materials from residential homes, multi-residential buildings, some businesses and school boards. The Region receives and sorts these materials at a Material Recovery Facility (MRF) located in the Town of East Gwillimbury. In 2021, 78,417 tonnes of blue box recyclables were collected and processed at the MRF, then baled and sold to end markets to be recycled and made into new products.

As shown in Graphs 6 and 7 on page 15, there have been fluctuations in the amount of blue box recyclables collected and marketed over the past five years. Since the pandemic, end markets have been impacted by lockdowns and global supply chain disruptions. The Region has markets for all materials to help ensure it can maximize material recovery. In 2021, 71% of blue box recyclables were sent to North American markets to be made into new products and packaging such as food and beverage containers, cardboard, newsprint, plastic lumber, carpets and pallets.

Contamination

In 2021, the Region's blue box contamination rate was 19.6%, slightly increased compared to 2020. Throughout the pandemic, the Region continued to reduce contamination by working collaboratively with local municipal partners on education and enforcement efforts. Addressing contamination now will help municipalities prepare for the transition. To minimize confusion for residents, contamination reduction efforts will give thought to the future blue box program under the producer responsibility framework.

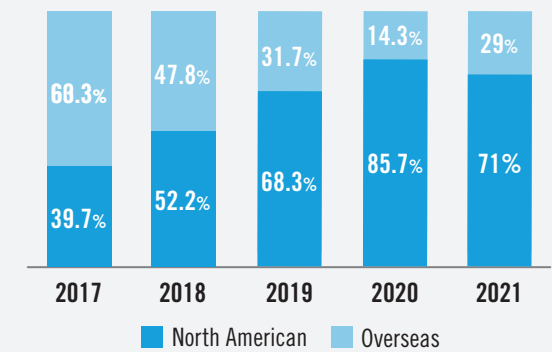
Transition Towards A New Blue Box Program

The Ontario Ministry of the Environment, Conservation and Parks finalized the Blue Box Regulation on June 3, 2021 and will transition to the new regulatory framework for resource recovery starting on July 1, 2023, through to December 31, 2025. York Region and its nine local cities and towns are working together to navigate through the transition process and to prepare for a smooth transition to the full producer responsibility framework and are scheduled to transition on December 31, 2025.

Transition Dates for Municipalities

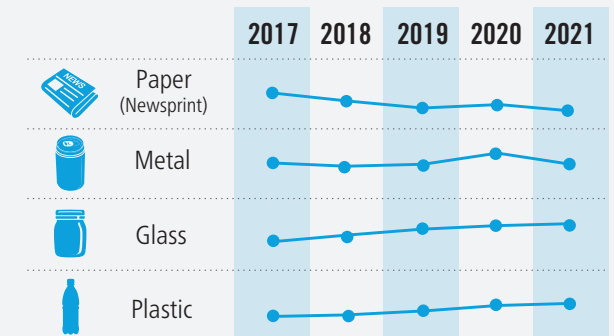


Graph 6: End Market of York Region Blue Box Material



Note: 2021 Blue Box Residue Rate - 28% of collected blue box material was rejected during processing.

Graph 7: Trend of Marketed Blue Box Tonnes





ORGANIC WASTE

DID YOU KNOW?

Food waste has increased substantially since 2019 due to more people preparing and eating meals at home or ordering takeout as a result of the pandemic. Food waste generates greenhouse gases and impacts climate change. For food saving tips and tools visit york.ca/goodfood

What Happens to Organics From Curbside to Compost

Processing organic waste into compost represents one-third of the Region’s overall diversion achievement. In 2021, York Region residents generated 114,075 tonnes of source separated organics. Of that amount, 111,154 tonnes were shipped to contracted composting facilities in Ontario and processed into biogas (for electricity and heat), fertilizers and compost using anaerobic digestion (composting with no oxygen). The remaining 2,921 tonnes represent leachate (liquid produced from the decomposition of waste) and evaporation. The 1,195 tonnes of leachate were managed through approved treatment facilities in Ontario and 1,725 tonnes were lost to evaporation.

Processing organic waste into biogas, fertilizer and compost represents one-third of the Region’s overall diversion achievement.



RESIDUAL WASTE

Energy Recovery Helps Achieve Landfill Diversion Target

Processing of waste remaining after reducing, reusing, recycling and composting efforts waste at energy-from-waste facilities captures the energy content of residual waste, lowers greenhouse gas emissions, recovers metals and reduces the volume of waste going to landfill. In 2021, York Region achieved 92% diversion from landfill, exceeding the Region’s goal of diverting 90% of waste from landfill.

In 2021, 168,179 tonnes of residual waste (garbage) was received in York Region. Materials that were placed in the blue box but could not be recycled were also managed as part of the residual waste stream. The Region shipped 139,133 tonnes of residual waste for energy recovery: 59,012 tonnes (42%) were processed at Covanta Niagara in New York State, 49,870 tonnes (36%) processed at Emerald Energy from Waste in Brampton, Ontario and the remaining 30,251 tonnes (22%) processed at the Durham York Energy Centre (DYEC) in Clarington, Ontario. The DYEC continues to operate in full compliance with stringent regulatory emissions limits.

York Region achieved 92% diversion from landfill, exceeding the Region’s goal of diverting 90% of waste from landfill.

Table 2: Residual Waste Shipments

Destination	Tonnes
Energy-From-Waste	139,133
Landfill	29,311
Year-End Carry Over*	-265
Total Residual Waste	168,179

*Change in transfer station inventory January 1, 2021 and December 31, 2021.





DEPOT COLLECTION



DID YOU KNOW?

★★★★★

You can find more information about York Region Waste Depots by visiting york.ca/wastedepots

Do you have an item you no longer need? Learn how to properly recycle or dispose of items at york.ca/bindicator

4,364 TONNES

of divertible material was collected by York Region through special programs.

91%

of respondents surveyed said that they were very satisfied/satisfied with the quality of service at the depots.

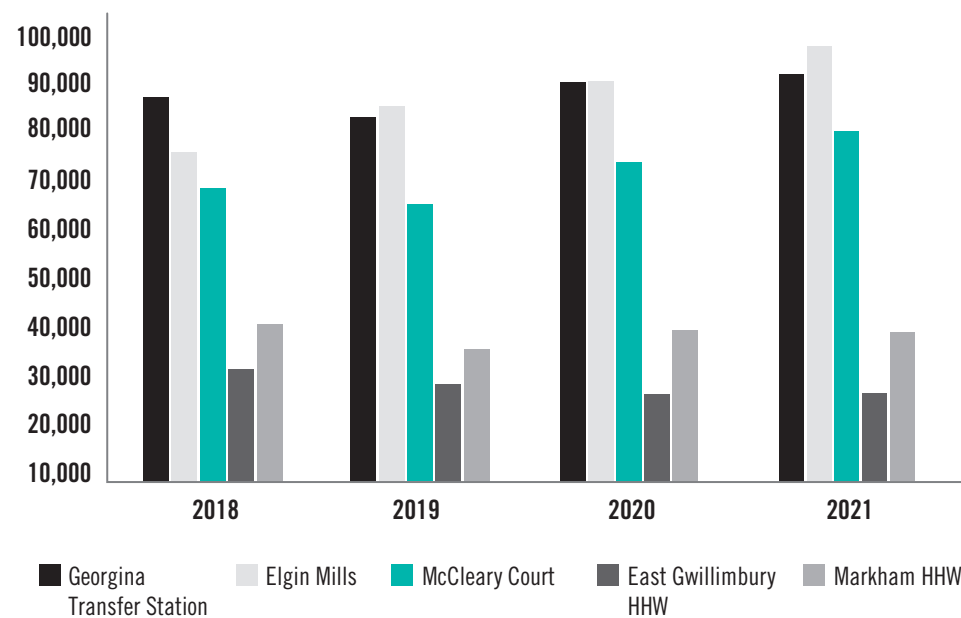
Increased Use of Depots With Most Diversion Programs Reinstated

York Region's waste depots collected 4,364 tonnes of divertible materials through special programs not offered at the curb such as cooking oil, concrete, electronic waste, refrigerated appliances, scrap metal, shredded paper, textiles, tires and wood.

Throughout the pandemic, the Region's waste depots and facilities continued to offer valuable services for all residents and small businesses

to drop off a variety of waste material while remaining in compliance with all COVID-19 safety protocols. Use of the depots continues to grow and customer satisfaction is high. Added new programs such as yard waste at McCleary Court Community Environmental Centre (CEC), launched in 2021, enhanced the value of these sites to the community.

Graph 8: Total Visits to York Regions Waste Depots



DEPOT VISITORS



Georgina Transfer Station
88,114



Elgin Mills CEC
94,209



McCleary Court CEC
75,868



East Gwillimbury HHW
19,055



Markham HHW
32,174

Total Site Visits:

309,420

ALL FIVE WASTE DEPOTS

collected household hazardous waste in 2021.

HHW COLLECTED



Paint (latex and alkyd)
545,090 kg



Motor Oil (bulked)
142,151 kg



Batteries (single-use/rechargeable)
65,209 kg



Propane Tanks and Cylinders
64,579 kg



Aerosol Containers
34,176 kg

Total HHW kg Collected:

1,365,490 kg

COMMUNITY ENGAGEMENT

The feedback received from these engagements provided vital input to some of the Region's waste programs.

Partnerships and Innovation Help Region Reach Residents in 2021

The feedback received from these engagements provided vital input to some of the Region's waste programs and services and will help guide staff as they implement future waste-related programming.

Based on interactions with the Region's social media, surveys and workshops, knowledge is increasing and interest in waste issues is growing. Several social media campaigns generated significant dialogue online, with residents sharing helpful tips and support on composting, reducing waste and proper disposal and recycling behaviours. An increase in visits to the Region's waste-related webpages also suggests that residents are interested in doing more to reduce waste and are regularly seeking information on how to dispose of items responsibly.

7 COMMUNITY ENGAGEMENTS IN 2021

THREE SURVEYS

THREE WORKSHOPS

1 Session with the York Region Accessibility Advisory Committee


2,725 PARTICIPANTS

33 REPRESENTATIVES from organizations and businesses across York Region

SINGLE-USE SURVEY RESULTS

87% would like businesses to ask first before giving them a single-use item

85% feel confident they know how to properly sort household waste

 The waste quiz revealed many items still cause confusion - coffee cups, foam containers, paper towels and tissues

80% support reducing plastic and foam containers and disposable cutlery

WASTE WEDNESDAY SOCIAL

FACEBOOK AND TWITTER POSTS

 **114** POSTS | **551,840** PEOPLE REACHED

FACEBOOK AND INSTAGRAM STORIES

124,000+ PEOPLE REACHED (Number of people who saw our content) | **400,000+** ENGAGEMENTS (Total number of actions taken on our content, i.e. Likes, shares, messages, comments)

ACROSS ALL PLATFORMS (FACEBOOK, TWITTER AND INSTAGRAM)

247 SHARES | **186** COMMENTS /REPLIES | **576** LINK CLICKS | **624** VOTES

74.04% VOTED RIGHT ✓ | **25.96%** VOTED WRONG ✗



Thank You to Our Partners



york.ca/waste

1-866-665-6752 | May 2022

On June 30, 2022 Regional Council made the following decision:

1. Council adopt the 2022 York Region Official Plan appended as Attachment 1 to the report dated June 2, 2022 from the Commissioner of Corporate Services and the Chief Planner, with the following further revisions:
 - To Map 1A of the draft York Region Official Plan to exclude the Block 66 EAST as shown on Attachment 1 in the “Employment Area” and re-designate it “Community Area”
 - As outlined in Attachment 2 and Attachment 9B appended to the June 28, 2022 memorandum from the Chief Planner
 - To Section 5.3.5 as described below:

5.3.5 Special Provisions for the lands municipally known as 11333 Dufferin Street, 11641 Dufferin Street and 11490 Bathurst Street. Notwithstanding the policies of this ~~section~~, Plan the lands described as PIN 03342-0266, PT LT 29 Con 2 Vaughan; PL LT 30 Con 2 Vaughan PTS 1-8 64R6003 Except PT 3 Expropriation PL R602558; S/T VA41581 Partially Released by R283556; S/T VA82915, Vaughan, 11641 Dufferin St and 11490 Bathurst St and Part 2 Plan 65R-31874, the lands are intended to be developed for urban uses. The lands shall only be developed on the basis of full municipal services, an approved and registered draft plan of subdivision, and an approved implementing zoning by-law.
2. Should the Minister issue an Order implementing the proposed settlement permitting urban development on the Rizmi Lands in accordance with the adopted Regional Official Plan, Council request that it be subject to the following terms:
 - a. The settlement shall result in the resolution of all outstanding appeals of the Regional Official Plan, including all the lands stayed by the Minister’s Order.
 - b. The Rizmi lands proposed for urban development will require Plan(s) of Subdivision applications and will be subject to detailed studies and conditions of approval, including but not limited to servicing, grading and any other reasonable conditions of draft approval, all to the satisfaction of the Region.
 - c. The construction and conveyance of the Kirby Road extension between Dufferin Street and Bathurst Street by Rizmi or its successor at no cost to the Region, with Rizmi providing any lands required from the Rizmi land holdings for the construction and conveyance of the Kirby Road extension, including any lands located within Parcel 1. The construction and conveyance of the Kirby Road extension will be condition of draft approval for any Plan(s) of Subdivision submitted in respect of all the Rizmi land holdings.

3. The Minister be requested to amend Reg. 140/02: Oak Ridges Moraine Conservation Plan under the Oak Ridges Moraine Conservation Act to permit and give effect to the adopted urban expansion on the Oak Ridges Moraine in the Town of Whitchurch-Stouffville, as follows:
 - a. Settlement area expansion for the Stouffville Bethesda Community Area lands as shown on the Maps of Attachment 1 and as outlined Attachment 3; and
 - b. Settlement area expansion of the South Gormley Employment Area lands as shown on the Maps of Attachment 1 and as outlined in Attachment 3.
4. Should the Minister choose not to amend Reg. 140/02: Oak Ridges Moraine Conservation Plan under the Oak Ridges Moraine Conservation Act to permit the Council endorsed urban expansion on the Oak Ridges Moraine in the Town of Whitchurch-Stouffville, the Minister be requested to modify the adopted ROP to reflect urban expansion on the remaining Whitchurch-Stouffville Whitebelt lands, currently identified as "Future Urban Area" on Map 1B of Attachment 1, with the designations and identifications provided in the inset maps for these lands in the November 2021 Draft Regional Official Plan.
5. Council adopt an overlay Schedule identifying lands in the Town of Whitchurch-Stouffville requested to be designated as Provincially Significant Employment Zones (PSEZ) as Future Strategic Employment Lands.
6. That the Minister be requested to modify A Place to Grow: Growth Plan for the Greater Golden Horseshoe to identify future Provincially Significant Employment Zones in the Town of Whitchurch-Stouffville for the purposes of long-term planning for job creation and economic development as identified in maps endorsed by Regional Council on March 21, 2019 and as provided to Regional Council and staff and amend Reg. 140/02 as required to permit the PSEZ overlay in the ROP.
7. That if the Minister determines to include the settlement area expansions and the Whitebelt in Whitchurch-Stouffville that phasing of development be tied to the water & wastewater servicing master plan.
8. The Regional Solicitor and General Counsel be directed to proceed with the adopting bylaw for the proposed Region Official Plan and repeal bylaw for the 2010 Region Official Plan, effective following Ministerial approval.
9. The Regional Clerk submit the 2022 York Region Official Plan as adopted, to the Ministry of Municipal Affairs and Housing for approval and forward this report and attachments to the Clerks of the local municipalities for information.
10. That staff work with the Province to obtain approval including to incorporate any modifications deemed necessary through their review, and report to Council as necessary.

For further details please refer to the:

- [Original staff report](#)
- [Memo referred to in the Council decision](#)
- [All votes relating to the Regional Official Plan Adoption](#)

Please contact Sandra Malcic, Director, Long Range Planning at 1-877-464-9675 ext. 75274 if you have any questions with respect to this matter.

This is being sent for information purposes and the formal Notice of Adoption of the Regional Official Plan will follow.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1

O: 1-877-464-9675 ext. 71300 | christopher.raynor@york.ca | york.ca

Our Mission: **Working together to serve our thriving communities – today and tomorrow**

On June 30, 2022 Regional Council made the following decision:

1. The Regional Clerk circulate this report to the Ministry of the Environment, Conservation and Parks, the Clerks of the local municipalities, the Toronto and Region Conservation Authority, and Lake Simcoe Region Conservation Authority for information.

The original staff report is attached for your information.

Please contact David Szeptycki, Director of Strategy & Innovation, Public Works Department at 1-877-464-9675 ext. 75723 or Karen Whitney, Director of Community Planning and Development Services, Corporate Services Department at 1-877-464-9675 ext. 71505 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1

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Our Mission: **Working together to serve our thriving communities – today and tomorrow**

The Regional Municipality of York

Committee of the Whole
Environmental Services
June 16, 2022

Joint Report of the Commissioner of Public Works and the Chief Planner

Conservation Authorities Act Regulations Implementation Update

1. Recommendation

1. The Regional Clerk circulate this report to the Ministry of the Environment, Conservation and Parks, the Clerks of the local municipalities, the Toronto and Region Conservation Authority, and Lake Simcoe Region Conservation Authority for information.

2. Summary

This report is an update to the May 2021 Regional Council report on changes to the [Conservation Authorities Act](#) (CAA) and informs Council of new regulatory requirements under the CAA and the path to implement these regulatory requirements in collaboration with the conservation authorities and local municipalities. Updated agreements with conservation authorities will be brought to Council for consideration in 2023, ahead of the January 1, 2024 provincial deadline.

Key Points:

- York Region is supported by two conservation authorities, the Lake Simcoe Region Conservation Authority (LSRCA) and the Toronto and Region Conservation Authority (TRCA) that deliver critical services through legislation, existing memoranda of understanding and service level agreements
- A [May 2021 Regional Council report](#) outlined changes to the Conservation Authorities Act, along with existing agreements and critical conservation authority services
- Conservation authorities are mandated to provide services to protect residents from flooding and natural hazards, and to effectively and safely enable development in York Region. These services are classified as Category 1 under the new regulation
- Some conservation authority services under the new regulation are classified under Category 2 or 3, with Category 2 referring to municipally requested programs and services, and Category 3 referring to other programs and services that the conservation authority determines are advisable to further the purposes of the CAA
- An internal cross-departmental Task Force has been created to work with conservation authority staff to review service inventories and revise Memoranda of

Understanding and agreements to align with regulatory requirements and growth in York Region

- Conservation authorities help mitigate risks to the Region and its local municipalities

3. Background

Conservation authorities provide essential protection from severe flooding and impacts of climate change

The CAA was introduced in 1946 by the Province in response to erosion and drought, recognizing that these issues are best managed on a watershed basis. The LSRCA was founded in 1951 as the Upper Holland Valley Conservation Authority. It was expanded to a broader watershed in subsequent years to cover the current area surrounding Lake Simcoe. Hurricane Hazel in 1954 destroyed homes, infrastructure, and resulted in loss of life demonstrating the vital importance of a watershed-based approach to flood management. This hurricane was a driver for establishing the TRCA in 1957. Conservation authority roles have now been integrated into multiple statutes, including the *Conservation Authorities Act*, *Planning Act*, *Clean Water Act* and *Lake Simcoe Protection Act*.

Conservation authority programs and services are vital to the Region as they provide a measure of due diligence for assessing environmental impacts associated with development and provide some protection from legal liability. The growing threat of climate change through severe rainstorms and sudden snowmelts, increases our community's reliance on conservation authorities and their services to guide adaptation and resiliency efforts. Conservation authorities' natural area protection and management programs align with Regional strategic priorities by supporting healthy watersheds and sources of the Region's drinking water.

The Province has taken a phased approach to Conservation Authorities Act changes

The Province has been undertaking a process to modernize conservation authority administration and operations over the last several years. [Bill 108 – More Homes, More Choice Act, 2019](#) amended the CAA with a goal of better defining mandatory or core services, along with improving accountability and transparency in conservation authority operations. Further amendments were made to the Act under [Bill 229 – Protect, Support and Recover from COVID-19 \(Budget Measures\), 2020](#) to enable governance changes, additional Ministerial powers, and require agreements between municipalities and conservation authorities for non-mandatory services.

Regulations under the amended Conservation Authorities Act have been introduced in two phases

Conservation authority regulations came into effect in two phases. Phase 1 regulations came into effect in October 2021 that prescribes mandatory services for conservation authorities, requires all non-mandatory services to be under an agreement, and sets out timelines to

transition to the new regulatory requirements by January 1, 2024. Phase 2 requirements focus on financial and administrative matters and came into effect in April 2022. Phase 2 regulations included municipal apportionment methods, conservation authority budget requirements, and requirements for much of this information to be posted on the authority's website.

Regulations require that conservation authority services fall under one of three categories, with Categories 2 and 3 requiring agreements

The new regulation outlines three categories of services:

- **Category 1** are mandatory services defined by the regulation. As a funding municipality, York Region is required to fully fund all Category 1 services, many of which are related to flood protection and hazard management.
- **Category 2** services are delivered at the request of a municipality, which help deliver Regional services on its behalf such as erosion control near critical infrastructure, planning review, and technical support for development applications.
- **Category 3** services are other additional services identified by the conservation authorities as providing an important benefit to the watershed, and that municipalities have agreed to financially support under a cost-apportioning agreement where municipal funding is required.

Table 1 outlines Region staff's initial interpretation of services outlined in regulation and is provided for information purposes only. Services categories will be refined in collaboration with the respective conservation authorities and local municipalities as a part of the inventory process set out by the Province. Recommendations in the [May 2021 Council report](#), directed staff to update existing agreements to reflect new regulatory requirements. This approach mitigates against risks associated with not working directly with the conservation authorities.

Table 1
Examples of Conservation Authority Services in Three Categories

Category 1	Category 2	Category 3
Natural hazard management (including plan review), flooding, and low-water response	Planning service and support, related to plan review (e.g. natural heritage)	Stormwater maintenance
Development/site alteration (Section 28.1) permitting	Capital project support	Sub-watershed monitoring
Management of conservation authority lands	Regional erosion control	Certain natural heritage
Source water protection	Oak Ridges Moraine Groundwater monitoring program	Invasive species
Lake Simcoe Protection Plan		Research
Watershed resource management strategy	Children's Water Festival	Education

Under the new regulation, Category 2 and 3 programs and services must be administered through an agreement between a conservation authority and municipality. Currently, York Region has six existing agreements for services with its partner conservation authorities, outlined in Attachment 1. These agreements will be reviewed and revised in early 2023 to comply with the new regulatory requirements to have agreements in effect by the end of 2023.

The intent of the regulation is to provide greater transparency on services and costs for municipalities by requiring all mutually agreed upon Category 2 and 3 services to be administered under an agreement and reviewed on a periodic basis. Classifying services under Categories 2 or 3 does not indicate that the Region will be treating these services as discretionary as many of these services remain critical to the Region and its local municipalities such as growth-related review services and sub-watershed planning, which are important from a risk management perspective.

A Regional staff Task Force was established to support implementation of new regulations

York Region established a Conservation Authorities Task Force to support implementation of new regulatory requirements by the January 1, 2024 deadline. The Task Force, co-led by Planning and Economic Development and Public Works, also includes representatives from Finance, and Legal Services. The Task Force has met with both TRCA and LSRCA staff to discuss initial inventories and will continue to work directly with the conservation authorities to refine inventories and develop revised service level agreements.

4. Analysis

Conservation Authorities mandated to represent public interest on natural hazards for development under the Planning Act

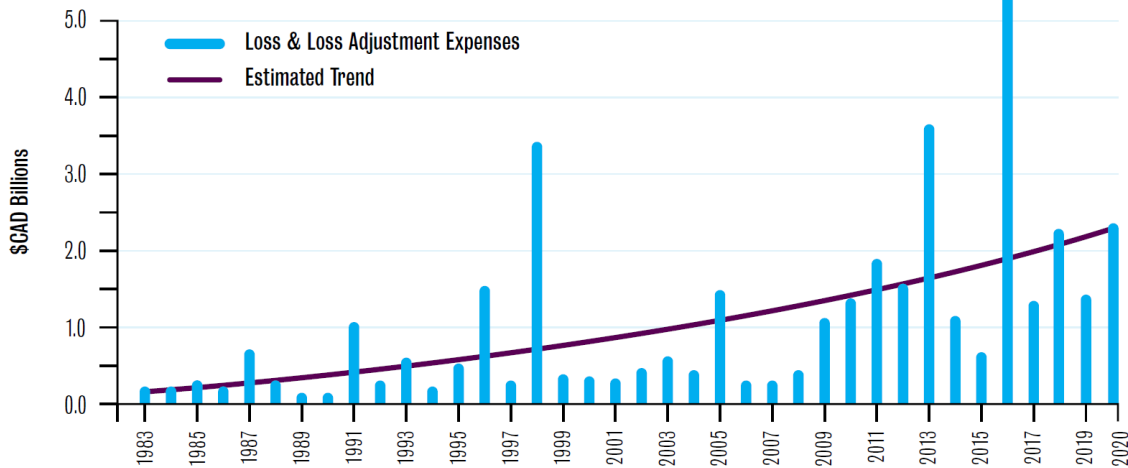
Conservation authorities are regulators for development and site alteration in flood-prone and erosion-prone areas (Regulated Areas identified by the CAA). Conservation authorities play a critical role to help deliver services and programs in partnership with all levels of government for flood and erosion control and prevention.

The protection, restoration and enhancement of the natural environment, and safety of persons and property, is carried out by the LSRCA and TRCA during the review of development applications with a watershed lens. York Region and the local municipalities rely on the conservation authorities for effective management of hazard lands and technical expertise for risks associated with natural hazards. Under the new regulations, the services outlined above are a mixture of Category 1 and 2 services.

Climate change-related lawsuits against municipalities are increasing, expose potential liabilities and demonstrate risks need to be mitigated

Impacts of climate change represent a significant risk for municipalities across Canada, including York Region and its local municipal partners. Ontario is experiencing more frequent and intense storms along with sudden snowmelts. According to the Insurance Bureau of Canada, the Greater Toronto Area had six '100 Year' storms between 2005-2018. The Intact Centre on Climate Adaptation at the University of Waterloo assessed preparedness of Canadian municipalities, finding that municipalities face flooding and other natural hazard risks and need to adapt to impacts of climate change to protect from flooding risks. Figure 1 outlines the scale of insurance payouts for catastrophic losses across Canada with a significant upward trend over the last 15 years, which is expected to continue.

Figure 1
Insured Catastrophic Losses in Canada



Source: Intact Centre on Climate Adaptation at the University of Waterloo report: Climate Change and the Preparedness of 16 Major Canadian Cities to Limit Flood Risk, 2021

Conservation authority services are expected to be increasingly important as the impacts of climate change continue to escalate

As the frequency and intensity of storms and snow melt events increase, so does the importance of conservation authorities' focus on watershed protection and natural hazard management. Conservation authorities are uniquely suited to advise on and mitigate flooding risks due to their watershed-based focus and risk management approach. Through monitoring systems and data, conservation authorities conduct assessments, consider cumulative impacts and mitigation beyond a particular subject property. A systems approach is important when considering potential downstream impacts and watershed wide impacts that may result from the approval of development applications.

The role that natural heritage system, green infrastructure, and stormwater management planning have in natural hazard risk mitigation are comprehensively considered through conservation authority watershed planning efforts. This integrated approach to watershed management is critical in informing effective and proactive land use and infrastructure planning and risk management. Risk management and watershed health are a shared responsibility amongst all levels of government. Risk management accountability is provided by the conservation authorities to York Region in part through agreement mechanisms currently in place.

Conservation authorities currently provide York Region with support, experience and expertise that is not easily replicated and will need to be continued

York Region has access to a high level of technical expertise, continuity of service, process efficiencies and knowledge at the watershed scale that crosses municipal boundaries and avoids a patchwork approach to watershed management. Benefits include risk management accountability, more efficient and timely processes, consistent input and service/program

continuity, access to specialized experts and comprehensive data to assist with Regional approvals and processes, and overall cost efficiencies. These benefits are outlined in the [May 2021 Council report](#).

While many services have been prescribed under the regulations, they do not reflect the full spectrum of critical services that conservation authorities provide to the Region. Certain services will need to be maintained for the Region to effectively mitigate environmental risks and deliver critical services to residents. Council provided staff authority through a report in [May 2021](#) to negotiate updated agreements that leverage conservation authority's expertise and support Regional projects and service delivery. For example, York Region's existing agreement for Plan Review and Technical Services provides Planning staff with essential professional expertise from conservation authorities to implement Provincial and Regional planning policies in the areas of natural hazards and natural heritage. The Region also relies on conservation authorities' expertise to support Regional capital projects and reforestation initiatives. Given the importance of this work in support of the Region's infrastructure plans, staff anticipate these agreements will need to be maintained into the future.

Educational services provided by conservation authorities enhance environmental awareness and set a strong foundation for future stewardship

In addition to watershed-based technical expertise, conservation authorities also provide valuable educational services. Services such as the Children's Safety Village, Children's Water Festival, Water for Tomorrow and forestry stewardship services help create environmental awareness that supports Regional priorities such as source water protection and urban canopy targets. Educating youth sets a strong foundation for future environmental stewardship, which will help address pressing issues like climate change. While not included in Category 1 services, staff believe education is a vital component of services provided by conservation authorities. As a result of this circumstance environmentally beneficial educational services will be updated in service level agreements with the conservation authorities.

Agreements will be brought to Regional Council for consideration in early 2023

Recommendations in the [May 2021 Council report](#), directed staff to update existing agreements to reflect new regulatory requirements. Region staff will continue working with conservation authority staff to develop draft agreements for all non-mandatory services to be provided through Categories 2 and 3 throughout 2022 and bring revised agreements between York Region and each conservation authority to Council in 2023.

5. Financial

[York Region's total operating and capital budgets for the conservation authorities](#), combined is \$14.6 million for 2022. The 2022 operating budget of \$6.6 million for conservation authorities reflects York Region's share of each conservation authority's general levy budget. These costs are apportioned among municipalities in their watersheds based on their share of assessment. The remaining funding represents special capital and reforestation initiatives

included in the Public Works budget, the 2022 approved budget for these services was \$8 million.

Other funding is provided to the conservation authorities for fee-for-service work including capital project support, funding agreements for staffing support and urban forest studies. Amounts vary each year depending on the number and timing of projects. In recent years the amount has ranged from \$2.7 million to \$4.5 million, depending on Regional project needs. Any changes to conservation authorities funding will be brought forward through the 2023-2026 budget process.

6. Local Impact

Local municipalities are not considered “participating municipalities” under the CAA. As a result, only York Region is required to fund their respective conservation authorities based on current value assessment of the participating municipalities within the watershed. Local municipalities do receive direct benefits from Regional funding, including conservation authorities’ protecting people and property from flood risks, along with natural heritage, planning, and other services. For example, conservation authorities support local municipalities by reducing impact to locally owned infrastructure such as pumping stations, their expertise in low impact development, and localized improvements in flood prone areas that reduce the reliance on stormwater ponds that are costly to maintain.

As part of the inventory review process, Region staff will be engaging with local municipal staff to identify areas of importance from a local perspective for alignment as Regional agreements are developed with the conservation authorities.

Local municipalities also engage conservation authorities for plan review services, with funding largely covered by the conservation authority's application fees. Currently, LSRCA has memorandums of understanding for certain services with the Towns of Aurora, East Gwillimbury, Georgina, King Township, Newmarket and Whitchurch-Stouffville. TRCA has an existing agreement with the City of Markham and is in the process of developing memorandums of understanding with each of their local municipalities. Local municipal plan review agreements are outlined in Attachment 2.

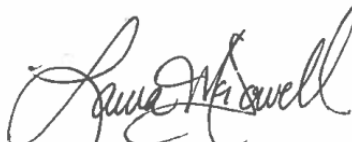
York Region’s current Memorandums of Understanding on development planning matters ensures that consistent expert review and consolidated comments are provided to local municipalities on planning and development applications on behalf of the Region. The current agreements with conservation authorities related to infrastructure reviews assist York Region with getting important Regional projects built and in operation sooner. While it is recognized that local municipalities negotiate their own agreements with conservation authorities based on their own needs, there are benefits and efficiencies with consistent agreements for local municipalities and the Region.

7. Conclusion

Conservation authorities have specialized and unique expertise and experience given their familiarity with watershed issues such as natural hazards, flood protection, green infrastructure and plan review. In addition, there are established relationships between conservation authorities, local and regional municipalities that ensures these activities are completed in a timely and effective manner. Through the implementation of new *Conservation Authority Act* regulations and service inventory evaluations, continuity of critical services for the Region, particularly related to flooding and other climate impacts, will be a priority consideration when updating existing Memorandums of Understanding and Service Level Agreements to reflect new regulatory requirements.

For more information on this report, please contact David Szeptycki, Director of Strategy & Innovation, Public Works Department at 1-877-464-9675 ext. 75723 or Karen Whitney, Director of Community Planning and Development Services, Corporate Services Department at 1-877-464-9675 ext. 71505. Accessible formats or communication supports are available upon request.

Recommended by:



Laura McDowell, P. Eng.
General Manager, Interim Transition, Environmental



Erin Mahoney, M. Eng.
Commissioner of Public Works



Paul Freeman, MCIP, RPP
Chief Planner



Dino Basso
Commissioner of Corporate Services



Approved for Submission:

Bruce Macgregor
Chief Administrative Officer

May 26, 2022
Attachments (2)
#13839963

**Existing Memorandums of Understandings and Service Level Agreements
York Region and Conservation Authorities**

Memorandum of Understanding	York Region (Planning & Economic Development), LSRCA and TRCA	<ul style="list-style-type: none"> • Establishes the parameters of the plan review and technical clearance expertise that LSRCA and TRCA will provide to assist the Region when making decisions on planning applications <ul style="list-style-type: none"> - Comments and advice in context of Provincial, Regional and Local planning documents and Acts, the <i>Conservation Authorities Act</i>, <i>Environmental Assessment Act</i>, <i>Fisheries Act</i> and <i>Clean Water Act</i> - Comments and advice in context of effective watershed management and environmental protection and enhancement, including air and water quality, biodiversity and sustainable living - To ensure consistency with the Natural Heritage and Natural Hazard policies of applicable Provincial and Regional Statement/ Plans and make recommendations on development applications on behalf of the Region - Identify/ interpret features/ functions and establish requirements and conditions, determine need and adequacy of studies to the Region or on behalf of the Region - Assist in the aspects of applying sustainable alternative development standards - Ontario Land Tribunal representation on behalf of York Region • Streamlines the municipal planning system where opportunities exist Data sharing (Fees Policy/ Regulation Mapping updates) 	<ul style="list-style-type: none"> • Originally signed in 2000, re-affirmed in 2009. Currently no expiration date

Type of Agreement	Partners	Details	Notes
Service Level Agreement	York Region (Public Works) and TRCA	<ul style="list-style-type: none"> For the provision of services related to environmental permitting and approvals under the Environmental Assessment Act and Ontario Regulation 166/06 	<ul style="list-style-type: none"> Signed in 2004, renewed in 2015, extended in 2020 through to 2025 through amending agreement
Service Level Agreement	York Region (Public Works) and LSRCA	<ul style="list-style-type: none"> In support of services provided by LSRCA to York Region for applications made under the <i>Environmental Assessment Act</i> related to all Regional capital projects and annual operating requirements 	<ul style="list-style-type: none"> Signed in 2019, effective from January 1, 2018 to December 31, 2022. Currently in process of being extended to December 31, 2023.
Memorandum of Understanding	York Region, City of Toronto, Durham Region, Peel Region and 9 Conservation Authorities, including the LSRCA and TRCA	<ul style="list-style-type: none"> Oak Ridges Moraine Groundwater Program For the purpose of providing a multi-agency, collaborative approach to collecting, analyzing and disseminating water resource data and information as a basis for effective stewardship and management of water resources For collection, maintenance, and distribution of program data and information 	<ul style="list-style-type: none"> Revised version signed at end of 2020, extended through to 2030. Original signed in early 2000s, renewed every 10 years
Service Level Agreement	York Region (Public Works), LSRCA and TRCA	<ul style="list-style-type: none"> Conservation Authority Data Acquisition Business Requirement document To streamline the process of data sharing between York Region and the Conservation Authorities to reduce redundant data collection 	
Memorandum of Understanding	York Region (Public Works) with TRCA	<ul style="list-style-type: none"> York Natural Planting Partnership “Grow Your Legacy Program” 	<ul style="list-style-type: none"> Signed in 2020, extensions issued on a year-by-year basis

Type of Agreement	Partners	Details	Notes
	and LSRCA, respectively	<ul style="list-style-type: none"> • For the purpose of helping achieve targets under the Region's Greening and Land Securement Strategies • TRCA/LSRCA completes outreach on the program and tree planting activities 	

LSRCA = Lake Simcoe Region Conservation Authority, TRCA= Toronto and Region Conservation Authority

**Existing Memorandums of Understandings with Conservation Authorities for Plan Review
Local Municipalities and Conservation Authorities**

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
Town of Aurora	LSRCA	Yes (2016)	<ul style="list-style-type: none"> • Streamline circulations procedures for all applications under the <i>Planning Act</i> • Clarify roles of the LSRCA and Town in the planning process related to public health and safety and environmental protection based on legislation and practice • Creating efficiencies by reducing duplication of service • Providing the Town with increased decision-making autonomy 	<ul style="list-style-type: none"> • Plan Review (Planning policy and CAs permitting regulation) related to: <ul style="list-style-type: none"> - Natural hazard lands - Natural heritage - Water quality and quantity - Source water protection - Subwatershed Plan recommendations - Stormwater management - Advise on other legislation: <i>Environmental Assessment Act, Clean Water Act, Endangered Species Act</i> • Technical Review related to: <ul style="list-style-type: none"> - Stormwater management - Major Development applications for WHPA-Q2 for conformity with the South Georgina Bay Lake Simcoe Protection Plan • Assistance at LPAT or Environmental Tribunal • Participate in pre-consultation meetings • Scoping of complete application requirements including Terms of 	On hold – Awaiting Provincial regulation release

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
				Reference for Environmental studies <ul style="list-style-type: none"> Data sharing (Fees Policy/ Regulation Mapping updates) 	
	TRCA	No	Note: Confirmation is required from TRCA as to whether a formal MOU will be pursued with the Town given TRCA's jurisdiction within the Town of Aurora is very small		Unknown
Town of East Gwillimbury	LSRCA	Yes (2020)	<ul style="list-style-type: none"> Streamline circulations procedures for all applications under the <i>Planning Act</i> Clarify roles of the LSRCA and Town in the planning process related to public health and safety and environmental protection based on legislation and practice Creating efficiencies by reducing duplication of service Providing the Town with increased decision-making autonomy 	<ul style="list-style-type: none"> Plan Review (Planning policy and CAs permitting regulation) related to: <ul style="list-style-type: none"> Natural hazard lands Natural heritage Water quality and quantity Source water protection Subwatershed Plan recommendations Stormwater management Advise on other legislation: <i>Environmental Assessment Act, Clean Water Act, Endangered Species Act</i> Technical Review related to: <ul style="list-style-type: none"> Stormwater management Major Development applications for WHPA-Q2 for conformity with the South 	On hold – Awaiting Provincial regulation release

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
				<p>Georgina Bay Lake Simcoe Protection Plan</p> <ul style="list-style-type: none"> • Implementing the LSRCA Phosphorus Offsetting Policy • Site Plan Control application determination for environmental lands • Assistance at LPAT or Environmental Tribunal • Participate in pre-consultation meetings • Scoping of complete application requirements including Terms of Reference for Environmental studies • Data sharing (Fees Policy/ Regulation Mapping updates) 	
Town of Georgina	LSRCA	Yes (2015)	<ul style="list-style-type: none"> • Streamline circulations procedures for all applications under the <i>Planning Act</i> • Clarify roles of the LSRCA and Town in the planning process related to public health and safety and environmental protection based on legislation and practice 	<ul style="list-style-type: none"> • Plan Review (Planning policy and CAs permitting regulation) related to: <ul style="list-style-type: none"> - Natural hazard lands - Lake Simcoe Shoreline - Natural heritage - Water quality and quantity - Source water protection - Subwatershed Plan recommendations - Stormwater management - Advise on other legislation: <i>Environmental Assessment</i> 	On hold – Awaiting Provincial regulation release

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
			<ul style="list-style-type: none"> • Creating efficiencies by reducing duplication of service • Providing the Town with increased decision-making autonomy 	<p><i>Act, Clean Water Act, Endangered Species Act</i></p> <ul style="list-style-type: none"> • Technical Review related to: <ul style="list-style-type: none"> - Stormwater management - Major Development applications for WHPA-Q2 for conformity with the South Georgina Bay Lake Simcoe Protection Plan • Assistance at LPAT or Environmental Tribunal • Participate in pre-consultation meetings • Scoping of complete application requirements including Terms of Reference for Environmental studies • Data sharing (Fees Policy/ Regulation Mapping updates) 	
Township of King	LSRCA	Yes (2018)	<ul style="list-style-type: none"> • Streamline circulations procedures for all applications under the <i>Planning Act</i> • Clarify roles of the LSRCA and Town in the planning process related to public health and safety and environmental protection based on legislation and practice 	<ul style="list-style-type: none"> • Plan Review (Planning policy and CAs permitting regulation) related to: <ul style="list-style-type: none"> - Natural hazard lands - Natural heritage - Water quality and quantity - Source water protection - Subwatershed Plan recommendations - Stormwater management - Advise on other legislation: <i>Environmental Assessment</i> 	On hold – Awaiting Provincial regulation release

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
			<ul style="list-style-type: none"> • Creating efficiencies by reducing duplication of service • Providing the Town with increased decision-making autonomy 	<p><i>Act, Clean Water Act, Endangered Species Act</i></p> <ul style="list-style-type: none"> • Technical Review related to: <ul style="list-style-type: none"> - Stormwater management - Major Development applications for WHPA-Q2 for conformity with the South Georgina Bay Lake Simcoe Protection Plan • Assistance at LPAT or Environmental Tribunal • Participate in pre-consultation meetings • Scoping of complete application requirements including Terms of Reference for Environmental studies • Data sharing (Fees Policy/ Regulation Mapping updates) 	
	TRCA	No	<u>Note:</u> However, currently relies on TRCA input through plan/ development review process.		Underway/ On hold – Awaiting Provincial regulation release
City of Markham	TRCA	Yes (2007)	<ul style="list-style-type: none"> • For Plan Review, Technical Clearance and Fee Collection 	<ul style="list-style-type: none"> • Plan Review <ul style="list-style-type: none"> - Development application review - Identifying need for technical reports 	Underway/ On hold – Awaiting Provincial

			<ul style="list-style-type: none"> • Provide for TRCA plan review and technical clearance expertise to assist the City in making decisions on planning applications. • Streamline the municipal planning system where opportunities exist 	<ul style="list-style-type: none"> - Specifying conditions of approval • Technical Clearance Services <ul style="list-style-type: none"> - Technical Review - Clearing conditions of approval • Plan and Technical Review based on, and related to: <ul style="list-style-type: none"> - Planning policy and CA permitting regulation - Defining features/functions, establish requirements, conditions, and study Terms of Reference for natural heritage, natural hazards, groundwater recharge, ground and surface water quality and quantity, ground and surface water taking permits, fisheries, requirements under other legislation - Assist in technical aspects related to stormwater management and natural heritage feature enhancement • Data sharing • Pre-consultation 	regulation release

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
				<ul style="list-style-type: none"> Assistance at LPAT with respect to plan review and technical clearance services 	
Town of Newmarket	LSRCA	Yes 2016	<ul style="list-style-type: none"> Streamline circulations procedures for all applications under the <i>Planning Act</i> Clarify roles of the LSRCA and Town in the planning process related to public health and safety and environmental protection based on legislation and practice Creating efficiencies by reducing duplication of service Providing the Town with increased decision-making autonomy 	<ul style="list-style-type: none"> Plan Review (Planning policy and CAs permitting regulation) related to: <ul style="list-style-type: none"> Natural hazard lands Natural heritage Water quality and quantity Source water protection Subwatershed Plan recommendations Stormwater management Advise on other legislation: <i>Environmental Assessment Act, Clean Water Act, Endangered Species Act</i> Technical Review related to: <ul style="list-style-type: none"> Stormwater management Major Development applications for WHPA-Q2 for conformity with the South Georgina Bay Lake Simcoe Protection Plan Assistance at LPAT or Environmental Tribunal Participate in pre-consultation meetings Scoping of complete application requirements including Terms of 	Underway/ On hold – Awaiting Provincial regulation release

Municipality	Conservation Authority	Current MOU (Date)	MOU Purpose	Conservation Authority Role	Status of MOU Update
				Reference for Environmental studies <ul style="list-style-type: none"> Data sharing (Fees Policy/ Regulation Mapping updates) 	
City of Richmond Hill	TRCA	No	<u>Note:</u> However, currently relies on TRCA input through plan/ development review process		Underway/ On hold – Awaiting Provincial regulation release
City of Vaughan	TRCA	No	<u>Note:</u> However, currently relies on TRCA input through plan/ development review process		Underway/ On hold – Awaiting Provincial regulation release
Town of Stouffville	LSRCA	Yes (2016)	<ul style="list-style-type: none"> Streamline circulations procedures for all applications under the <i>Planning Act</i> Clarify roles of the LSRCA and Town in the planning process related to public health and safety and environmental protection based on legislation and practice 	<ul style="list-style-type: none"> Plan Review (Planning policy and CAs permitting regulation) related to: <ul style="list-style-type: none"> Natural hazard lands Natural heritage Water quality and quantity Source water protection Subwatershed Plan recommendations Stormwater management Advise on other legislation: <i>Environmental Assessment</i> 	Underway/ On hold – Awaiting Provincial regulation release

			<ul style="list-style-type: none"> • Creating efficiencies by reducing duplication of service • Providing the Town with increased decision-making autonomy 	<p><i>Act, Clean Water Act, Endangered Species Act</i></p> <ul style="list-style-type: none"> • Technical Review related to: <ul style="list-style-type: none"> - Stormwater management - Major Development applications for WHPA-Q2 for conformity with the South Georgina Bay Lake Simcoe Protection Plan • Assistance at LPAT or Environmental Tribunal • Participate in pre-consultation meetings • Scoping of complete application requirements including Terms of Reference for Environmental studies. • Data sharing (Fees Policy/ Regulation Mapping updates) 	
	TRCA	No	<u>Note:</u> However, currently relies on TRCA input through plan/ development review process		Underway/ On hold – Awaiting Provincial regulation release

On June 30, 2022 Regional Council made the following decision:

1. Council approve in principle, the 2022 Transportation Master Plan, included as Attachment 1 to this report and that staff provide a report in September 2022 once all consultations have been completed.
2. The Regional Clerk circulate this report to the Clerks of the local municipalities, Toronto and Region and Lake Simcoe Region Conservation Authorities, Ministry of the Environment, Conservation and Parks, Ministry of Transportation and Ministry of Municipal Affairs and Housing.

The original staff report is attached for your information.

Please contact Brian Titherington, Director, Transportation Infrastructure Planning at 1-877-464-9675 ext. 75901 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1
O: 1-877-464-9675 ext. 71300 | christopher.raynor@york.ca | york.ca

Our Mission: **Working together to serve our thriving communities – today and tomorrow**

The Regional Municipality of York

Committee of the Whole
Transportation Services
June 16, 2022

Report of the Commissioner of Public Works

Final 2022 Transportation Master Plan

1. Recommendations

1. Council approve the 2022 Transportation Master Plan, included as Attachment 1 to this report.
2. The Regional Clerk circulate this report to the Clerks of the local municipalities, Toronto and Region and Lake Simcoe Region Conservation Authorities, Ministry of the Environment, Conservation and Parks, Ministry of Transportation and Ministry of Municipal Affairs and Housing.

2. Summary

This report requests Council approve the 2022 Transportation Master Plan (2022 TMP) (Attachment 1), which summarizes long-term transportation projects required to meet growth needs to 2051. Upon Council approval of the plan, staff will notify agencies, Indigenous communities, partners, stakeholders and the public the 2022 TMP has been finalized. This will commence the 30-day public review period in accordance with the Municipal Class Environmental Assessment process.

Key Points:

- The 2022 TMP is a long-term transportation plan identifying infrastructure and initiatives required to support population and employment growth to 2051, as envisioned through the Regional Official Plan and aligns with the financial sustainability principles embedded in the Region's Fiscal Strategy
- The 2022 TMP was developed in coordination with the Region's Municipal Comprehensive Review Process, which includes updates to the Region's Official Plan and Water and Wastewater Master Plan
- Recommendations in the 2022 TMP are based on best practices research, technical assessment of the transportation network, and informed by Council priorities and feedback received throughout the engagement and outreach process
- The 2022 TMP aligns with provincial plans, including the Metrolinx 2018 Regional Transportation Plan and the Ministry of Transportation 2022 Greater Golden Horseshoe Transportation Plan

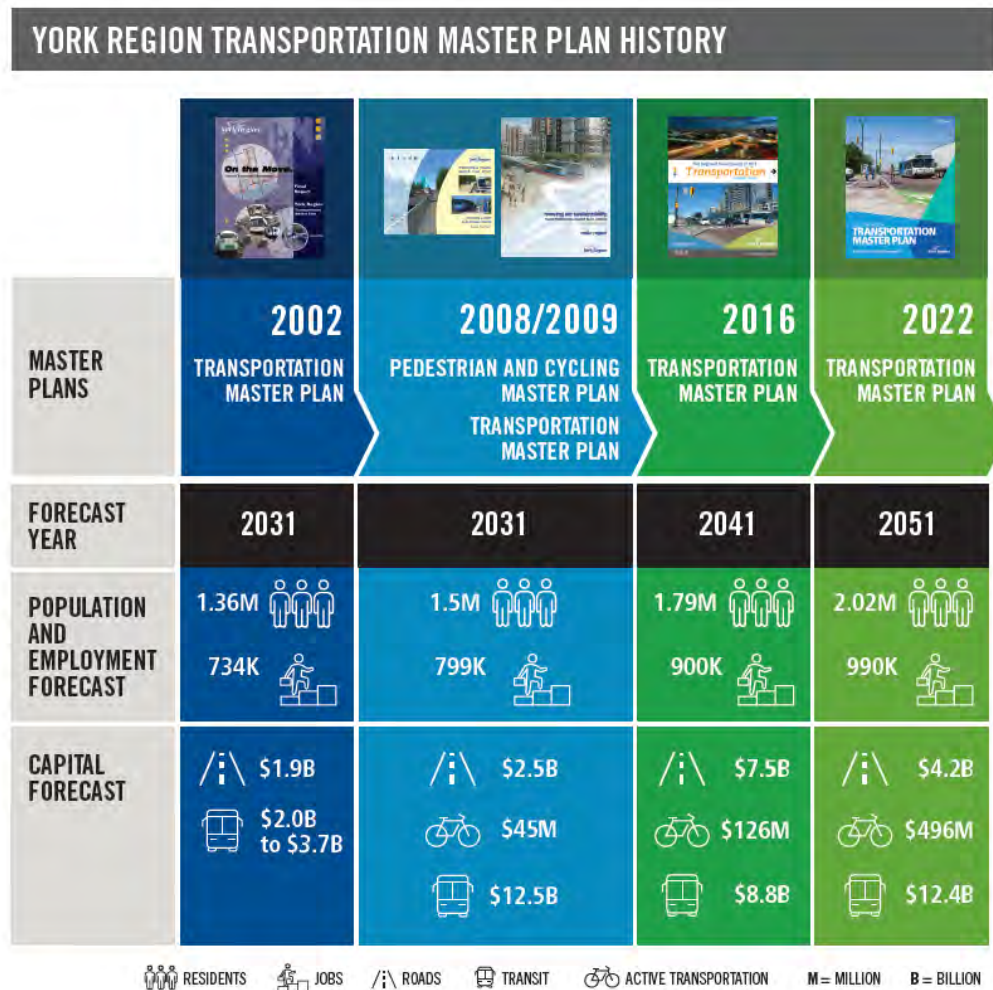
- Implementation of the 2022 TMP will involve monitoring to ensure delivery of initiatives and actions identified through five focus areas and prioritizing transportation improvement projects through the 10-year Roads and Transit Capital Program

3. Background

2022 Transportation Master Plan builds upon prior studies

York Region reviews the Transportation Master Plan every five years to ensure long-term strategies reflect evolving transportation requirements supporting growth and changing needs of travellers across the Region over the next 30 years. Regular updates to the plan have been undertaken since 2002 (Figure 1).

Figure 1
Transportation Master Plan History



The capital forecasts shown in Figure 1 includes investments by all levels of government in transportation and transit infrastructure. The 2022 TMP was completed in accordance with the Municipal Engineers Association Municipal Class Environmental Assessment process, as

were previous Transportation Master Plans. It builds upon elements identified in the 2016 TMP, with revisions made to address updated population and employment growth forecasts and planning horizon to 2051. The 2022 TMP aligns with the Region's Fiscal Strategy and supports the corporate vision of "Strong, Caring and Safe Communities" and the four priorities of the Region's Corporate Strategy: Economic Vitality, Good Government, Healthy Communities and Sustainable Environment.

2022 Transportation Master Plan is coordinated with Municipal Comprehensive Review process, including updates to Regional plans

Balancing improvements to the transportation network with planned population and employment growth is critical, and this alignment is achieved through the Municipal Comprehensive Review process. This integrated process accounts for planned growth included in the York Region Official Plan update and servicing infrastructure identified in the Water and Wastewater Master Plan to ensure coordinated implementation.

The 2022 TMP supports the 50-55% intensification targets included in the York Region Official Plan update as well as the update to the Development Charge Bylaw. As part of the Municipal Comprehensive Review process, the 2022 TMP and 2022 Water and Wastewater Master Plan updates are aligned.

Technical analysis that underpins the 2022 TMP was supported by a state-of-the-art travel demand forecasting tool and extensive public engagement with residents, stakeholders and partners using digital consultation platforms. External consulting expertise on emerging topics of importance helped augment staff's insights and understanding of key issues.

Final 2022 Transportation Master Plan incorporates feedback and enhancements from the draft plan received by Council in March 2022

Since [March 2022](#), staff completed presentations to local Councils and consulted with municipal and government agency partners, stakeholders and the public. The draft 2022 Transportation Master Plan presented in March was updated to reflect input received.

4. Analysis

2022 Transportation Master Plan identifies transportation infrastructure supporting the Region's communities and economic growth to 2051

The 2022 TMP reflects Council's priority for a safe, reliable, future-ready, and sustainable transportation network that is accessible for all travellers. It aligns with the financial sustainability principles embedded in the Region's Fiscal Strategy and identifies transportation infrastructure to support plans for 2.02 million people and 990,000 jobs in the Region over the next 30 years. It supports the Region's vision for complete communities that are accessible, walkable, and where most amenities are nearby to meet people's needs for daily living through all stages of life. The connection between transportation and land use planning is integral to creating quality places where people want to live, work, play and learn.

Long-term transportation infrastructure required to support the Region's communities and economic growth to 2051, includes road cycling, trail cycling, rapid transit and road networks. Together, these networks create a transportation system to connect travellers safely and reliably to their destinations and efficiently move goods across the Region's cities and towns.

2022 Transportation Master Plan was informed by extensive consultation and engagement

The 2022 TMP was shared with Council in March and was informed by extensive community consultation and engagement, including: surveys (close to 2,000 responses), meetings, three public information sessions, social media and the project website (over 20,000 page views). The following is a summary of engagement with residents, Indigenous communities, stakeholders and partners, including:

- Presentations to local municipal councils, as requested, providing an update on the 2022 TMP progress to date and seeking feedback on the proposed 2051 transportation network maps and focus areas
- Meetings with six Indigenous communities, providing an overview of the 2022 TMP and receiving comments on proposed transportation network maps and focus areas (over 50 comments received)
- Meetings with local municipal staff and government agency representatives through the Transportation Master Plan Partnership Advisory Group and related discussions (over 150 comments received)
- A third virtual public information session held on April 21, 2022, sharing the draft 2022 TMP, including a summary of “what we heard, how we applied feedback and what actions are now planned” throughout the 2022 TMP development process; close to 450 individuals attended the three public information sessions and 250 comments were received

2022 Transportation Master Plan network maps are based on comprehensive analysis and informed by feedback

A technical assessment of the Region's transportation networks and focus areas was completed using a state-of-the-art travel demand forecasting model and informed by Council priorities, the Region's Fiscal Strategy, industry expertise and feedback received through consultation and engagement. Based on analysis and input, the Region has recommended long-term transportation infrastructure needs, as shown on the maps in Attachments 2 to 5.

Interest in walking and cycling is a growing trend

Although this was occurring prior to the COVID-19 pandemic, having easy access to walking and cycling facilities over the past two years has become even more important to Regional residents and travellers. The recommended 2051 Regional Road Cycling and Trail Networks (Attachments 2 and 3) provide options for cyclists to use Regional roads and the inter-regional trail system that enhances safety, connects to other systems, and aligns with the

Region's Pedestrian and Cycling Planning and Design Guidelines. The Regional Road Cycling Network is generally used for commuter cycling with more direct routes along the Regional Road network while the Regional Trail Network, spanning York Region and crossing regional boundaries with less direct routes, is typically used by cyclists for recreational purposes.

While the pandemic has impacted ridership in the short term, there is increased interest in rapid transit use going forward

Throughout the 2022 TMP, staff heard that people are increasingly interested in using transit for travel when it is convenient, reliable and has competitive travel times compared to travel by car. The recommended 2051 Rapid Transit Network (Attachment 4) identifies and protects for rapid transit corridors to support the Region's planned growth needs. The rapid transit network aligns with provincial plans and protects additional corridors to address York Region's rapid transit interests over the longer term. The focus of the rapid transit network is on infrastructure rather than service improvements given the 2022 TMP is a long-term plan.

Although there is increased interest in cycling, walking and taking transit, for many who live in the Region, the car is still their primary mode of travel

The recommended 2051 Road Network (Attachment 5) focuses on maximizing the benefit to travellers by connecting communities. The road network was informed by the Region's priority-setting process while recognizing the Region's financial realities now and into the future. The road network recommended for the next 30 years prioritizes improvements in the Region's most congested corridors, areas of new development and major employment and in areas that facilitate access to freeways, Regional Centres and rapid transit corridors.

Input received on the network maps since March informed updates to the draft 2022 Transportation Master Plan

Feedback received from local Councils, municipal and government agencies, Indigenous communities, partners, stakeholders and the public informed updates to the 2022 TMP. The changes summarized below were mostly minor in nature.

- Regional Road Cycling and Trail Networks - adding some recently constructed cycling facilities and updating proposed cycling facilities and trails with arrows indicating inter-regional connections
- Rapid Transit Network - adding arrows showing rapid transit linkages into neighbouring municipalities, the rapid transit north-south corridor in east Markham (subject to further study) and GO station status and location updates
- Road Network – revised how grade separations, mid-block crossings and interchange improvements were shown

2022 Transportation Master Plan focus areas are based on industry best practices and informed by stakeholder engagement

Through the 2022 TMP development process, five focus areas, addressing key transportation issues, were identified for further exploration over the next five years:

- **Safety for all travellers** - Although safety is always ‘top of mind’ for transportation projects and initiatives, this focus area explores the need to develop a Regional plan for traveller safety. The plan will be based on the Safe System Approach and developed in consultation with stakeholders. It will include an engagement plan, a web-based repository of traffic data, exploration and expansion of current and new road safety measures, and an action plan for each type of traveller.
- **Transportation equity and inclusion** - This focus area is about providing transportation options that are inclusive of all ages, abilities, income levels, genders, races and cultures. This focus area will explore opportunities for all travellers to access transportation facilities and services in York Region and proactively identify if new policies or initiatives are needed, for example, in fare and service integration.
- **Reduce car travel, especially during rush hours** - This focus area looks at options that allow travellers, who are able and interested, to use methods of travel (other than car) during the busiest travel times, for example, through projects like the Yonge North Subway Extension.
- **Fiscal and environmental sustainability** - Ensures transportation investment decisions are affordable and consider environmental impacts. The Region continues to leverage federal funding opportunities to build electric vehicle charging stations to support transition to electric vehicles.
- **Role and function of Regional corridors** - Explores several actions including:
 - Reviewing ownership and maintenance of separated cycling lanes and streetlighting located adjacent to Regional roads
 - Identifying the best way to safely accommodate walking, cycling and newer options such as e-scooters and e-bikes along Regional roads
 - Evaluating effectiveness of high occupancy vehicle and transit lanes, and whether the current six-lane policy needs to be updated
 - Determining whether the Region needs a more standardized approach to parking on streets and how/where parking on Regional roads is permitted
 - Assessing the impact of large trucks on Regional roads; balancing the need to move goods and possible negative impacts on communities

These focus areas will explore opportunities for further study and consultation to develop recommendations and action plans for Council's consideration over the next term of Council.

2022 Transportation Master Plan aligns with provincial plans

In May 2018, Metrolinx released the [2041 Regional Transportation Plan for the Greater Toronto and Hamilton Area](#), as a blueprint for creating an integrated, multimodal regional transportation system that will serve the needs of residents, businesses and institutions.

In March 2022, the Province released [Connecting the GGH: A Transportation Plan for the Greater Golden Horseshoe](#), which aims to “support population and employment growth, reduce gridlock, connect communities, and improve people’s access to jobs, housing, health care and education.” A memorandum to Council in [April 2022](#) summarizes key features of this GGH Plan and how the 2022 TMP aligns with the provincial plan.

The 2022 TMP aligns with the Ontario Ministry of Transportation and Metrolinx’s transportation plans while advocating for what York Region needs to support planned growth into the future from a transportation perspective.

Staff will continue to work with provincial partners to ensure alignment of Regional plans.

Implementation of the 2022 Transportation Master Plan will involve monitoring and evaluation as actions identified are being delivered

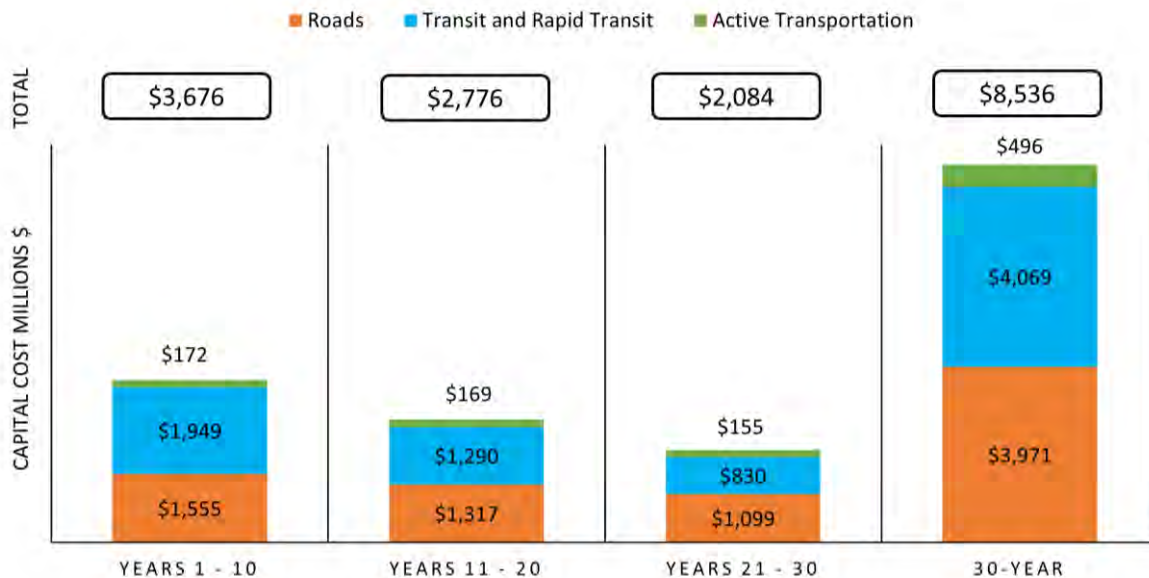
Upon approval of the 2022 TMP, staff will develop an implementation plan to monitor, measure, evaluate and report back on initiatives identified through the five focus areas. Continuous monitoring and regular reporting will ensure the 2022 TMP remains flexible, allows for advocacy of major infrastructure investments and considers fiscal implications as planning evolves. Transportation Network projects identified in the 2022 TMP will be prioritized on an annual basis through the 10-year Roads and Transit Capital Construction Program.

5. Financial

Funding the 2022 Transportation Master Plan aligns with the Region’s Fiscal Strategy

The 2022 TMP is guided by the Region’s Fiscal Strategy and phasing policies in the Regional Official Plan to address transportation needs of travellers. Consistent with policies in the ROP, the 2022 TMP recognizes the importance of integrated land use, infrastructure and financial delivery. Recommended improvements in the 2022 TMP balance community needs with capital investment and lifecycle costs including rehabilitation, operations and maintenance.

York Region’s contribution to the estimated costs of the 2051 transportation networks and programs identified within the 2022 TMP is about \$8.54 billion. This includes \$4.07 billion for transit, \$3.97 billion for roads (also providing for active transportation improvements) and \$496 million for stand-alone active transportation projects. A breakdown of the Region’s share of the capital costs for transportation projects identified in the 2022 TMP is shown in Figure 2.

Figure 2**York Region's Contribution to Growth-Related Capital Infrastructure Costs****Transportation projects are funded by development charges, tax levy and other sources**

The 2022 Development Charge Background Study and Bylaw, approved by Council on May 26, 2022, are aligned with infrastructure recommendations in the 2022 TMP. Under this bylaw, 75% to 90% of the cost of growth-related projects are eligible for recovery through development charges. Remaining cost of projects are funded through property taxes, grants, subsidies and cost-sharing opportunities with third parties, including other levels of government.

Tax levy funding is required to support long-term operating and asset management costs of the proposed transportation network after infrastructure is built. The fiscal impact of building, operating and maintaining the transportation network in the 2022 TMP was evaluated as a part of the Fiscal Impact Analysis prepared for the Regional Official Plan update (Attachment 8 of the Regional Official Plan update report).

Key findings of the Fiscal Impact Analysis related to the 2022 TMP include:

- Aligning infrastructure investment to the actual pace of growth is key to ensuring the level of debt remains manageable
- Proactively managing contributions to asset management reserves that help fund the cost of maintaining existing and new infrastructure in a state of good repair across generations
- Continuing advocacy and engagement with the provincial and federal governments are needed to secure funding for expansion of the Rapid Transit network

- Partnering with other levels of government to help fund and deliver road-related infrastructure such as missing links, highway interchanges and road-rail grade separations, is needed to provide a seamless and integrated road network

Implementing the 2051 transportation network requires investment by all levels of government

Significant investment from all levels of government, including anticipated federal, provincial and municipal contributions, is needed to support transportation projects in the Region. Table 1 summarizes the anticipated contributions towards funding the 2022 TMP.

Table 1
Summary of Funding Contributions for 2022 TMP Projects

Project Category	Total Cost (\$ millions)	Regional Cost Contribution (\$ millions)	Cost Contribution by Others (\$ millions)
Transit and Rapid Transit	12,429 *	4,069	8,360
Active Transportation	496	496	0
Roads	4,237	3,971	266
Total	17,162	8,536	8,626

* Includes estimated cost for Yonge North Subway Extension

Of the total anticipated investment of \$12.43 billion in transit and rapid transit infrastructure, the table indicates there is a forecasted \$8.36 billion cost contribution by others. Of this, \$4.48 billion is for the Yonge North Subway Extension project. Expansion of the bus rapid transit (BRT) network constitutes the remaining contribution by others of \$3.88 billion. Regional investment in the future BRT network will be phased over time, subject to provincial funding commitments. The table also includes 100% Regional contribution to transit facilities, fleet expansion and the environmental assessments and preliminary engineering to support future BRT projects.

For the \$4.24 billion total investment in roads, the table indicates the Region is the primary funder at \$4 billion. This investment funds major improvements to the Region's arterial road network, including new roads (missing links), expansion of existing Regional roads and four grade separations. The cost contribution of others to roads infrastructure is anticipated to increase over the next 30 years, depending on the number of future highway interchanges and road-rail grade separations initiated by the Province. Staff will continue collaborating with the Province on advancing these projects, including funding.

Active transportation projects identified in the 2022 TMP assume a 100% Regional contribution.

Regional contribution of capital investment in transportation projects led by others is reviewed and approved by Council through the annual budget process

Major capital projects in the 2022 TMP align with project prioritization and programming in the 10-year Roads and Transit Capital Program approved annually by Council. Additional commitments for Regional contributions to provincial or third party roads projects, such as the Region's share of provincially led BRT projects, highway interchanges and road-rail grade separations, will be presented to Council for approval through the annual budget process.

6. Local Impact

Engagement with local municipal Councils and staff occurred throughout the 2022 TMP development process through regular Partnership Advisory Group meetings, presentations to local municipal staff and councils, and ongoing consultation. Local municipalities were kept informed, and input received was incorporated into the final plan, where applicable, to ensure it supports a Regional transportation system that is safe, accessible, equitable and meets the needs of the entire Region.

The provincial, regional and local transportation networks function as an interconnected system. The 2022 TMP guides how local municipalities identify and plan for infrastructure required to support growth forecasts. It further provides support to local municipal transportation master plans, secondary plans and development charges bylaws by identifying synergies between roads, transit and active transportation improvements supporting growth, and guiding local development and land use planning decisions.

7. Conclusion

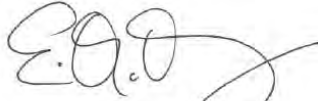
The 2022 Transportation Master Plan identifies long-term transportation infrastructure required to support the Region's communities and economic growth for the next 30 years. The plan was completed in coordination with the Municipal Comprehensive Review process and 2022 Development Charge Bylaw.

The 2022 TMP is aligned with provincial plans, strives to consider the unique needs of the communities we serve, and reflects feedback received from extensive consultation and engagement with residents, stakeholders and partners.

This report seeks Council approval of the 2022 TMP. Upon approval, staff will notify agencies, Indigenous communities, partners, public and stakeholders of its completion. A 30-day public review period will commence, when interested parties may provide comments on the plan. Following completion of the review period, staff will review and respond to comments, which will be taken into consideration in implementing the final plan. The 2022 TMP will be available online at York.ca/TMP.

For more information on this report, please contact Brian Titherington, Director, Transportation Infrastructure Planning. Accessible formats or communication supports are available upon request.

Recommended by:



Erin Mahoney, M. Eng.
Commissioner of Public Works

Approved for Submission:



Bruce Macgregor
Chief Administrative Officer

June 3, 2022
Attachments (5)
13771981



2022 YORK REGION

TRANSPORTATION MASTER PLAN

13842893



We acknowledge that York Region is located on the traditional territory of many Indigenous peoples such as the Anishinaabeg, Haudenosaunee, Huron Wendat and Métis peoples and the treaty territories of the Haudenosaunee, Mississaugas of the Credit First Nation and Williams Treaties First Nations.

York Region falls under the Nanfan Treaty, Treaty 13 and the Williams Treaties. There are also other land claims and treaty rights involving portions of York Region that have not been resolved. The Chippewas of Georgina Island First Nation is a Williams Treaty First Nation and the closest First Nation community to York Region.



Mayor
Frank Scarpitti
City of Markham



Regional Councillor
Don Hamilton
City of Markham



Regional Councillor
Jack Heath
City of Markham



Regional Councillor
Joe Li
City of Markham



Regional Councillor
Jim Jones
City of Markham



Mayor
David West
City of Richmond Hill



Mayor
Maurizio Bevilacqua
City of Vaughan



Chairman & CEO
Wayne Emmerson



Regional Councillor
Joe DiPaola
City of Richmond Hill

A Message from York Region Chairman and CEO and Members of Regional Council

Whether living, working or playing in York Region, transportation remains a vital service, providing travellers with cycling, walking, driving and transit options.

York Region continues to make transportation and transit-related initiatives a key priority, including bringing subway service into the Region and enhancing roads and surrounding infrastructure to support multiple modes of transportation.

The 2022 Transportation Master Plan is a long-term vision for York Region's growing communities, which are expected to grow to more than 2 million people and nearly 1 million jobs by 2051.

The plan looks ahead 30 years and considers transportation infrastructure needs to support growing communities, changing technology and movement of goods.

The 2022 Transportation Master Plan is coordinated with the Region's Official Plan and the Water and Wastewater Master Plan, ensuring a future where Regional services continue to create strong, caring and safe communities.



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▲ Vehicles travel on King Road between Weston Road and Highway 27 in the Township of King.

Executive Summary

York Regional Council's vision of Strong, Caring, Safe Communities guides all Regional departments and staff to be accountable to the communities we serve. The **2022 Transportation Master Plan (TMP)** is the long-term vision for York Region's transportation network and aligns with the Vision's four areas of focus: **Economic Vitality, Good Government, Healthy Communities** and **Sustainable Environment**. The TMP considers the Region's transportation infrastructure needs over the next 30 years to support growth and the changing needs of travellers, while highlighting focus areas for further study.

By 2051, York Region's population is expected to grow to over two million residents and nearly one million jobs. To support growth, the TMP is reviewed every five years to ensure the regional transportation network meets the needs of all motorists, pedestrians, cyclists and transit riders. The 2022 TMP builds upon the elements of the 2016 TMP and has been coordinated to align with the Regional Official Plan and the Water and Wastewater Master Plan updates.

The purpose of the TMP is to guide staff in planning, building, operating and maintaining a connected transportation network that is safe, sustainable, efficient, reliable and ready for the future. It balances the needs of the unique communities across York Region and is further supported by the following objectives:

- > **Make the best use of infrastructure and services:** Maximize the effectiveness of the existing road network
- > **Encourage all types of travel:** Design Regional roads to accommodate all ages, abilities and modes of travel, including active transportation, transit, passenger vehicles and goods movement
- > **Provide a resilient and adaptable transportation network:** Adapt to changing environmental, social, financial and technological landscapes
- > **Enhance partnerships:** Recognize the importance of collaborating with the public and private and non-profit organizations to provide transportation infrastructure, programs and services

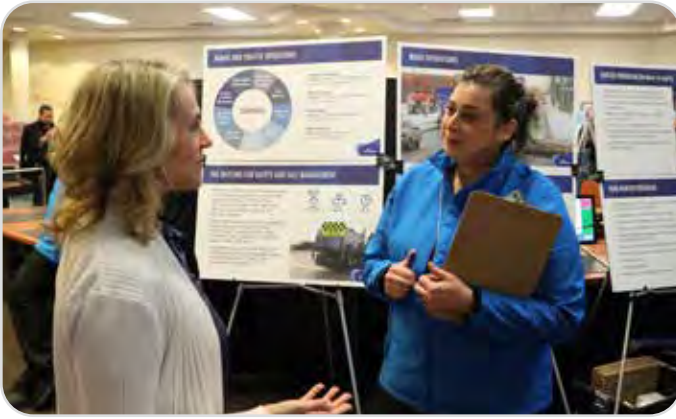
> **Actively engage and share information:**

Learn from all residents and stakeholders

- > **Align project costs:** Ensure project costs are consistent with the Region's fiscal strategy, the 10-Year Roads and Transit Capital Construction Program and obtain Regional Council approval annually

The following was considered when updating the 2022 TMP:

- > Updates to the Regional Official Plan to accommodate population and job growth in line with new provincial forecasts
- > Growing interest in active and eco-friendly travel options, including walking, cycling, carpooling and transit
- > Participation and feedback from York Region residents and stakeholders
- > Alignment with the Region's fiscal strategy
- > Commitments by senior levels of government and the Region to build the Yonge North Subway Extension to the City of Richmond Hill
- > Provincial plans for new and extended freeways with provision for parallel corridors dedicated to rapid transit
- > New technology to collect and use data to improve efficiency, enhance safety and save costs



▲ Research for the 2022 TMP was conducted during the COVID-19 Pandemic. Unlike previous Master Plans which had in-person Public Information Centres (above left), the 2022 TMP utilized online engagement tools such as virtual consultation, social media and YouTube videos.

York Region's priorities for investment in the 2022 TMP are based on comprehensive input from a wide range of transportation users and other interested parties, including residents, elected officials, municipal, provincial and federal governments, Indigenous communities and other community and agency partners.

The update also reflects long-term trends that have seen transit use grow faster than single-occupant vehicle travel and more reliance on cycling or walking instead of driving for shorter trips.

In developing the 2022 TMP, staff drew on knowledge gained while implementing the 2016 TMP and the impacts of disruptive events like the COVID-19 pandemic. This led to a change in the way the Region now approaches planning:

- > **Allow for flexibility:** Having the ability to change plans accordingly to reflect changing travel needs, global events, new technology, regulatory changes and emerging ideas and approaches
- > **Advocate for big projects the Region needs:** Advocating for provincial and federal funding as well as approaching other potential funders to share costs will be crucial in delivering the major projects outlined in the 2022 TMP

- > **Consider fiscal and environmental bottom lines:** The TMP must align with the Region's ability to pay for the projects outlined, and calls for a prudent approach in planning growth-related capital investments and the impact on the environment
- > **Seek and respond to opportunities:** Respond to federal, provincial and other partnership funding opportunities to build roads, transit infrastructure and operating funding
- > **Engage more often and more broadly:** Use a variety of techniques / tools, such as online surveys, social media, virtual engagement and post-pandemic in-person opportunities, to ensure as many voices as possible continue to be heard

Over the next five years, staff will monitor and take into consideration the impacts of the COVID-19 pandemic on York Region's transportation network and how it is used.

▼ Pedestrians walk on the sidewalk and cyclists ride in the dedicated on-street bike lane on Timothy Street in the Town of Newmarket.

As a long-term infrastructure plan, the TMP contains three main elements:

1. **Active transportation:** The plan supports a well-integrated and well-connected network of bike lanes, trails and multi-use paths to make these options easier and safer for all users. (See Maps 1 and 2 in [Appendix B](#))
2. **Rapid transit:** The Plan recommends additional rapid transit corridors to address the Region's growth to 2051 and beyond. (See Map 3 in [Appendix B](#))
3. **Optimized road network:** Investments will target managing traffic flow in the Region's most congested areas, improving roads in new development areas and enabling better access to freeways, Regional Centres, rapid transit and key links to major employment areas by making efficient use of the existing assets, such as roads, lanes and intersections, as well as investing in new projects. (See Map 4 in [Appendix B](#))

Transportation network maps have been developed to identify the transportation infrastructure required in York Region by 2051 to provide multiple travel options to serve pedestrians, cyclists, transit users and motorists.

The 2022 TMP identifies five new focus areas that bring together several related priorities:

- > **Safety for all travellers**
- > **Transportation equity and inclusion**
- > **Reduce car travel, especially during rush hours**
- > **Fiscal and environmental sustainability**
- > **Role and function of Regional corridors**

While many investments and actions within Transportation Operations, Public Works already reflect these priorities, further work and study by the Region and its partners will identify opportunities for new and / or improved approaches. Proposed actions and initiatives will be brought forward to York Regional Council for review and endorsement through the annual capital plans over its next four-year term.



- ▼ Students cross Leslie Street in the Town of East Gwillimbury with assistance from a crossing guard.

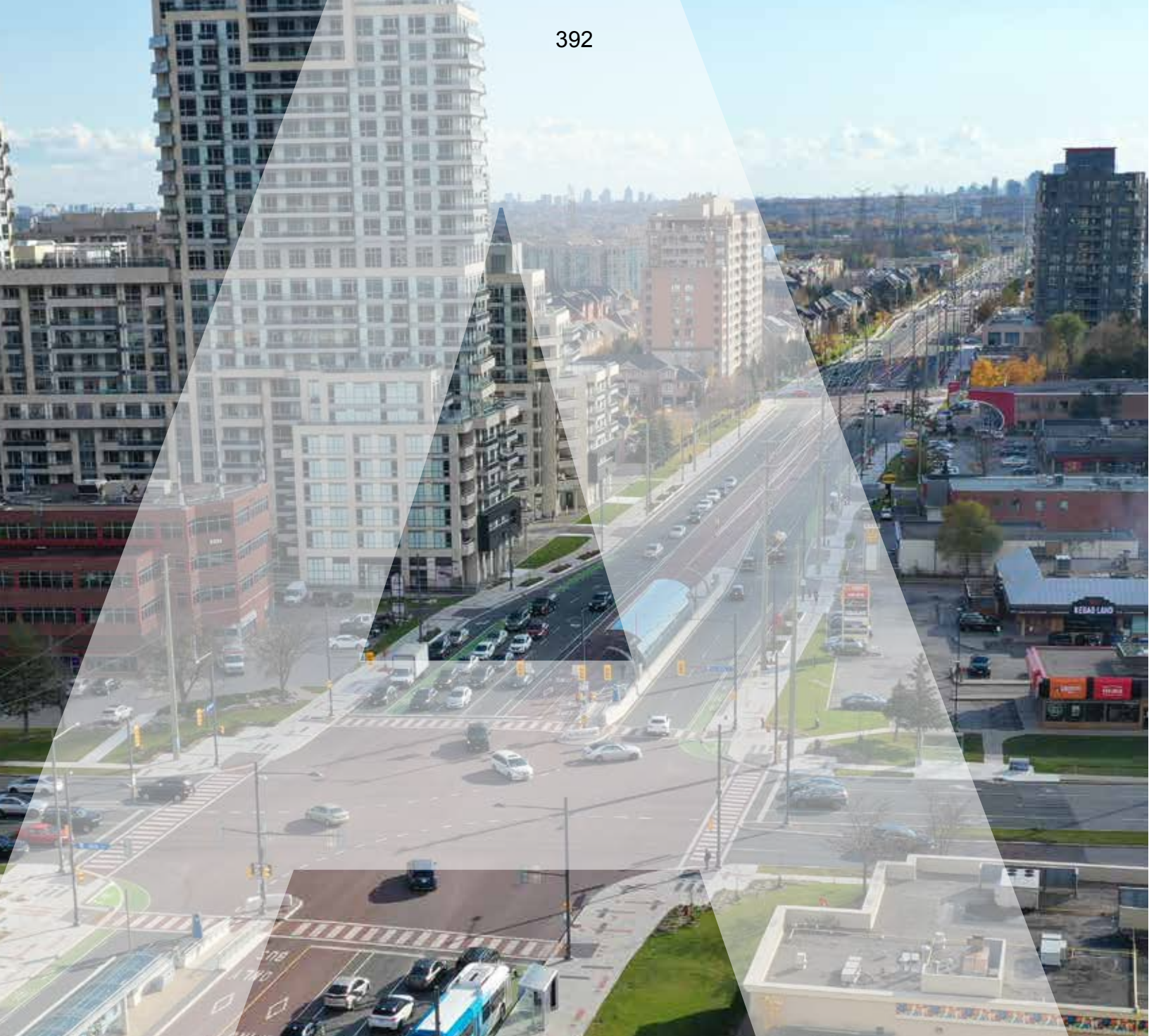


The 2022 TMP was completed following guidance provided by the Municipal Engineers Association. Projects within master plans are subject to provincial environmental legislation, typically under the municipal class environmental assessment process.

The Plan also aligns with other applicable provincial legislation and guidance, including the Provincial Policy Statement, other land-use considerations and Metrolinx and Ministry of Transportation plans.

Progress on achieving the projects and priorities outlined in the 2022 TMP will be monitored through a comprehensive review every five years. In addition, annual status updates will inform York Regional Council and the public on all focus area initiatives and actions, planned and completed work. Developing progress indicators and a framework for reporting will be key initiatives of the first status update.

The draft 2022 TMP identifies five new focus areas that bring together several related priorities: Safety for all travellers, transportation equity and inclusion, reduce car travel, especially during rush hours, fiscal and environmental sustainability and role and function of Regional corridors



In this chapter...

- A1 Setting a strategic direction for transportation
- A2 Building on past foundations
- A3 Understanding travel in York Region and how it is evolving
- A4 Traveller feedback was vital to updating the plan

▲ Intersection of Yonge Street and Carrville Road in the City of Richmond Hill

MASTERMIND

Introduction

A1 Setting a strategic direction for transportation

As York Region grows and changes, the 2022 Transportation Master Plan will set the strategic direction for roads, transit and active transportation options like walking and cycling, allowing people and goods to travel safely and reliably through the Region in environmentally and financially sound ways.

Provincial forecasts, revised in 2020, predict the Region will be home to just over two million residents and almost one million jobs by 2051. The Regional Official Plan, which guides the Region's growth, was updated in 2022 to incorporate this substantial increase. Infrastructure plans, including the TMP, align with the updated Regional Official Plan.

To meet the transportation needs of a growing population, encouraging change in how and when people travel will be needed in addition to expanding Regional roads.

Traveller behaviour is constantly changing. The global COVID-19 pandemic has accelerated a move toward working from home and, while longer-term trends are still uncertain, a large majority of Canadian workers currently show a preference to continue working from home, at least part of the time. This is likely to affect how and when people travel.



▲ Vehicles and YRT bus travel along Yonge Street in the City of Richmond Hill.

The growing urgency to address climate change is also affecting how people travel. Low-carbon transportation options like transit, walking and cycling reduce global greenhouse gas emissions. The Region has set an aspirational goal of net-zero greenhouse gas emissions by 2051 and through its [Energy Conservation Demand Management Plan](#), has committed to shifting its corporate and transit fleets to electric vehicles, including electric buses, by that date. This move and the extension of the Yonge subway line to the City of Richmond Hill represents major steps in the right direction. The move to lower-carbon options will also contribute to healthier communities by encouraging more physical activity and reducing traffic-related pollution and noise.

This TMP builds on a foundation of master plans going back to 2002 that recognized the need for new solutions. With the above factors accelerating the pace of change, the 2022 TMP also provides flexibility as conditions continue to change.

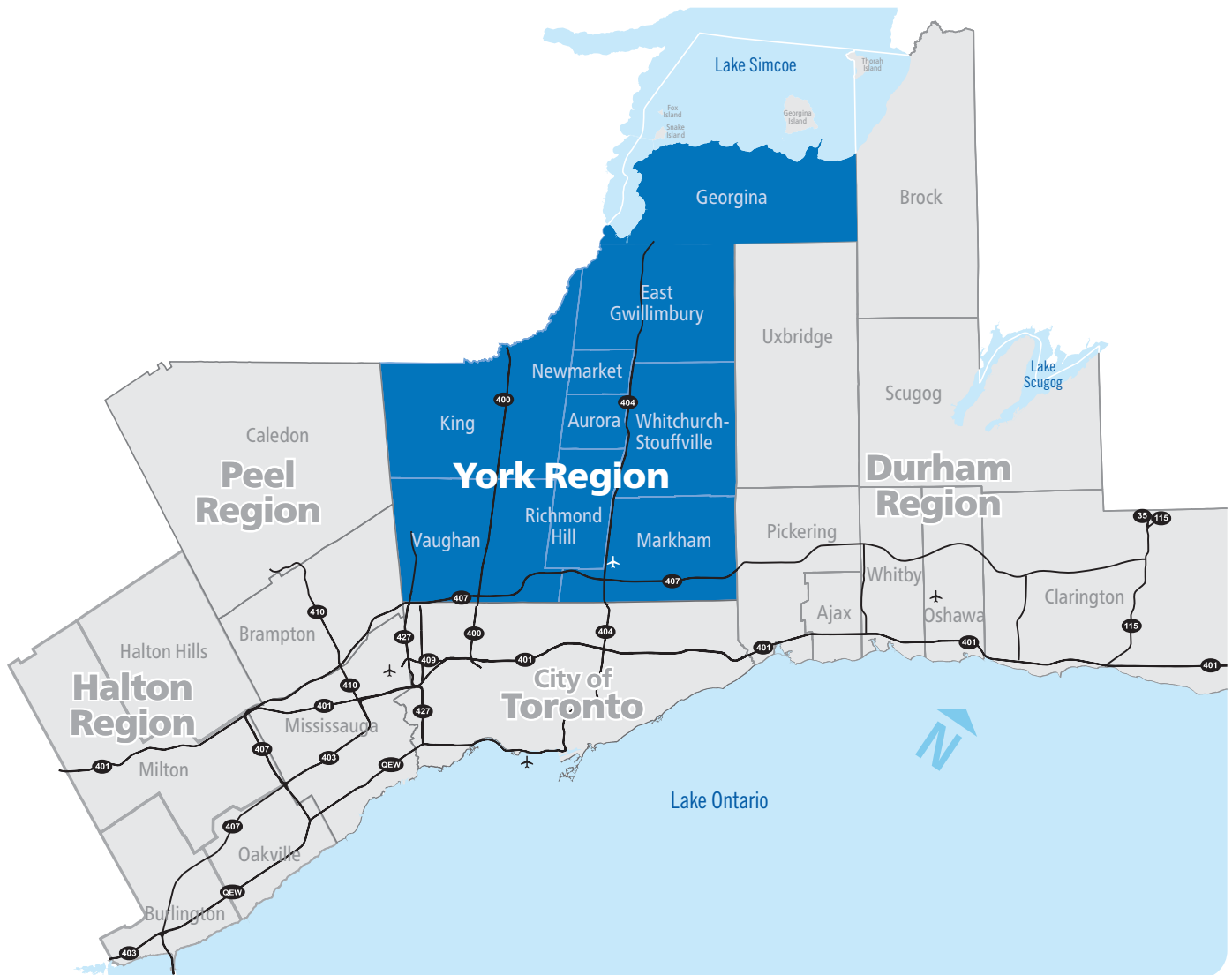
A2 Building on past foundations

Transportation has been critical to York Region's growth since its establishment in 1971 and will continue to play a vital role as the Region continues to accommodate new growth.

The Region was home to 1.2 million people and almost 624,000 jobs in 54,000 business establishments in 2021. Stretching from Steeles Avenue in the south to Lake Simcoe in the north, it encompasses an area of 1,776 square kilometres. Its position directly north of the City of Toronto, as shown in Figure 1, has helped to make it the fastest-growing large municipality in Ontario.

The progressive approach taken in previous transportation master plans has dramatically changed the landscape for transportation in the Region over the past two decades:

- York Region Transit (YRT) operates 34 kilometres of dedicated bus rapidways (or Viva) on Highway 7, Davis Drive and Yonge Street
- YRT service also links to the Vaughan Metropolitan Centre, Metrolinx's GO services and other new stops in the Region along the extended western arm of the subway line (TTC line 1), as well as to Finch station on the Yonge Street line
- Transit services have evolved to reflect new options and changing needs, with a focus on scheduled bus service in high-demand areas and options like on-request service elsewhere
- Numerous growth-related road projects have increased capacity and created connections to transit services and freeways
- Completed projects have filled in missing road links like Bathurst Street north of Green Lane and Bayview Avenue between Stouffville and Bloomington roads and have provided passage across barriers, allowing travellers to cross 400-series highways between interchanges
- The Region has also successfully advocated for the extension of Highway 404 in the towns of East Gwillimbury and Georgina as well as Highway 427 in the City of Vaughan to manage congestion and support planned growth
- Increasing use of intelligent transportation systems, discussed in Section A3.2, is making the network safer and more efficient
- Many road widening projects included the addition of multi-use paths for bicycle and pedestrian traffic or dedicated cycle tracks in roadside boulevards to make active transportation easier and safer for all travellers
- More than 85% of the work on the York Region portion of a 121-kilometre walking and cycling route linking Lake Simcoe to Lake Ontario is complete
- Plans are moving forward for a more than 50-kilometre walking and cycling route (South York Greenway) parallel to Highway 407 to support active and eco-friendly ways of travelling. Details are available at york.ca/southyorkgreenway



▲ FIGURE 1: York Region and its nine local municipalities are located centrally within the Greater Toronto Area (GTA).

- The Region continues to support, promote and encourage active and eco-friendly ways of travelling such as walking, cycling, scootering, hiking, carpooling and taking transit

These initiatives provide a strong foundation for continued growth and coordination and connection of transportation in and beyond York Region.

Central to the next phase of growth is the Yonge North Subway Extension which would extend TTC Line 1 to the City of Richmond Hill. This landmark project, which has been a top transit priority for the Region for several years, is being led by the provincial government. Major construction is expected to start in 2023 and to be complete within the next decade.

A3 Understanding travel in York Region and how it is evolving

A3.1 Many travel options within and beyond the Region

The transportation system in York Region includes roads, active transportation, transit and rail lines. The Region's direct responsibilities within this network include:



York Region Transit: Operating in all nine local municipalities, YRT offers a range of accessible services, including bus rapid transit, conventional bus and

Mobility On-Request and Mobility On-Request Paratransit. It connects travellers to transit services in the City of Toronto, Peel Region, Durham Region and the provincial GO Transit rail and highway bus systems. Strategically located "park and ride" lots encourage drivers to connect to transit for trips into urban areas and key destinations such as Toronto Pearson International Airport. YRT also supports active transportation, with bike racks on the front of buses and bike parking racks at many of its bus terminals, bus stops and Vivastations.



Active transportation and micromobility: Regional road corridors include high-quality facilities such as sidewalks, bike lanes, multi-use

paths and bike parking at bus stops and terminals, encouraging travellers to switch to more eco-friendly options. Active transportation includes walking, hiking and cycling. Micromobility, which relies on smaller, electric-powered vehicles like e-bikes and

e-scooters, is also emerging as a lower-carbon alternative to gas-powered travel.

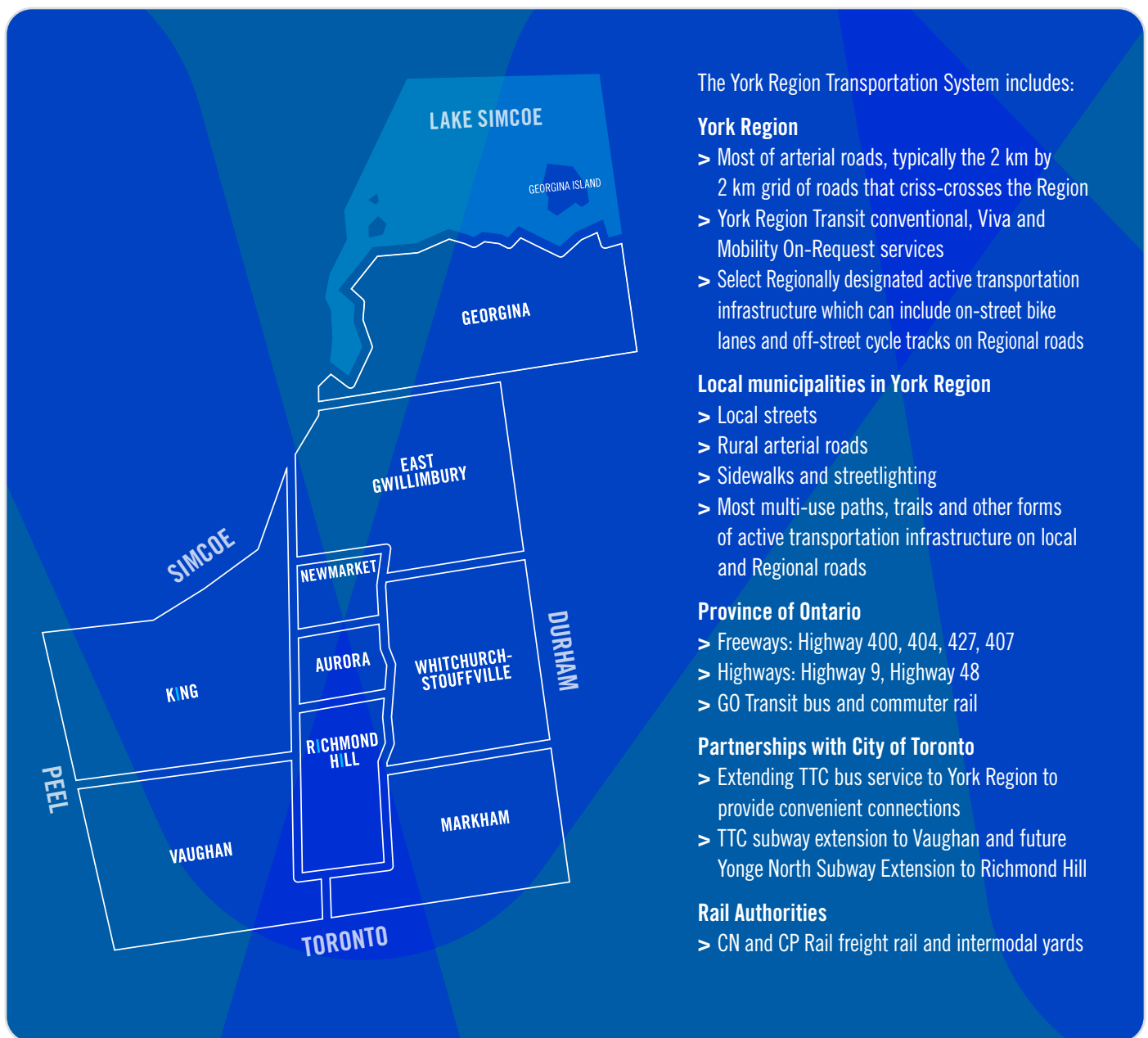


Regional roads: The Region is responsible for arterial roads, most of which are typically laid out in a 2-by-2-kilometre grid. These roads are designed to accommodate all types of traffic, including passenger vehicles, trucks for the movement of goods, transit vehicles and bicycles. As the links between local municipal streets and provincial highways, they are critical in moving people and goods throughout the Region.

A3.2 New technology is making travel safer and more efficient

York Region is a leader in adopting intelligent transportation system technologies that collect and use data to improve efficiency, enhance safety and save costs:

- > Over 400 Bluetooth sensors installed across the Region allow staff to monitor travel in real time on the road network, identify and respond to bottlenecks and provide alternate route information in response to incidents and adverse weather. This data helps traffic operations staff access the impacts of traffic signal timing changes to alleviate traffic delays and is also used to improve road safety
- > YRT has implemented a driver support system to improve ride quality for transit passengers and extend the life of buses. YRT is also piloting a pedestrian warning and collision avoidance system designed to improve the safety of pedestrians and cyclists on increasingly busy streets



▲ FIGURE 2: Transportation network in York Region.

Safety technologies used in York Region:



Bluetooth and wi-fi sensors



Bus monitoring system



Pedestrian warning and collision avoidance system



Pre-emption for emergency vehicles

- YRT is using a vehicle health monitoring system on electric and diesel transit vehicles to monitor components in real time and identify potential problems early to improve reliability and reduce maintenance costs
- The Region has also undertaken a two-year automated speed enforcement pilot to increase safety in school areas, with the possibility of continuing and expanding the program in the future

A3.3 The network is becoming more coordinated, connected and focused

A key aspect of York Region's work is collaborating with other levels of government and the private sector to create an integrated transportation network — one where travellers move not just from street to road to highway in their cars, but where they can travel using several transportation options and transfer easily from one to another.

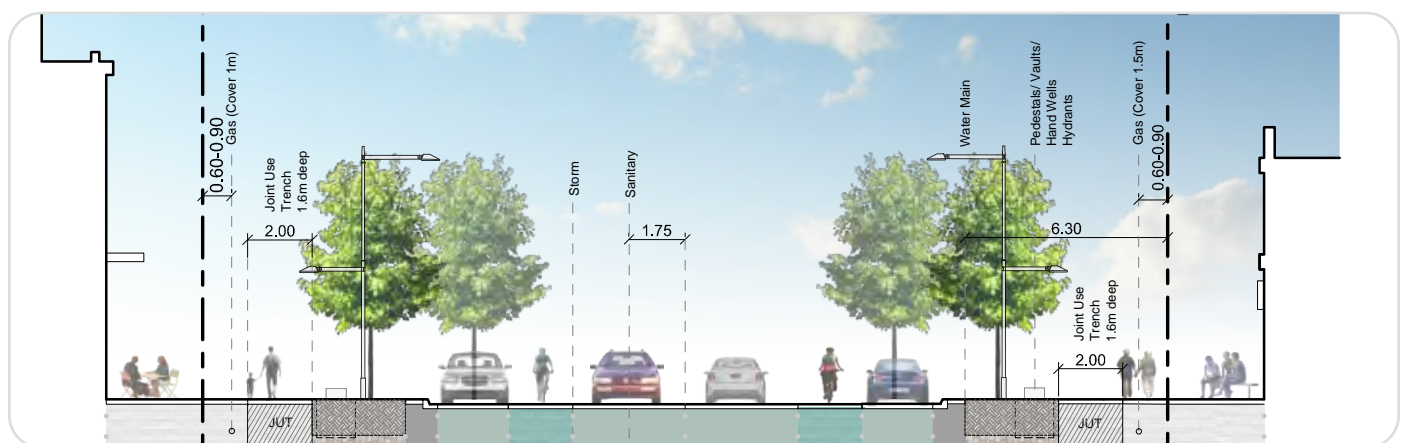
This is important because travellers are now more likely to use multiple modes of transportation: in addition to or instead of a private vehicle, they are cycling, walking, taking a bus, train or subway and using on-request transit more than travellers in the past. This means the Region and its partners need to

include all modes of transportation in the network, including the movement of goods, so they connect, just as Regional roads connect with local streets and provincial highways. The Region and its partners are considering how best to expand this network and add new options, which is discussed further in Chapter E.

The transportation programs and related infrastructure, such as roads, sidewalks, walking and cycling paths, terminals and more, are also evolving to recognize that different population and employment densities call for different transportation options like carpooling, cycling, walking and other human-powered ways of getting around, as well as low-carbon options like e-scooters and e-bikes. These are referred to as “active and eco-friendly options” throughout this document.

For example:

- Supporting investments in bus rapid transit and subway expansion through comprehensive planning and integration with Regional and local official plans and Water and Wastewater Master Plan to align high-density growth, such as in Major Transit Station Areas and Regional Centres, to ensure the efficient movement of people and goods.
- Areas of medium density support conventional scheduled bus service



▲ FIGURE 3: Cross-section of street corridor demonstrating integration of space for multiple modes of travel and utilities. Where feasible, cycling facilities will be relocated to the boulevard.

YORK REGION'S **POPULATION** is EXPECTED to GROW from



YORK REGION'S **EMPLOYMENT** is EXPECTED to GROW from



▲ FIGURE 4: York Region's expected population and employment growth based on Provincial forecasts.

- High- and medium-density areas are also favourable for active and eco-friendly options for trips to school, shopping, work or connecting to public transit
- In communities with the least population, on-request transit services are the most suitable. Cycle tracks and trails are more oriented to recreational use and travel by car for longer trips is more common

The Region's transportation planning is becoming more focused on providing the right services in the right areas at the right time. This supports travel needs effectively while helping to ensure the transportation network and services stay within the Region's financial means.

A3.4 Matching services to land use will be key as communities grow

With roughly 820,000 more people and 366,000 more jobs expected by 2051, York Region will accommodate the largest share of growth of any municipality in the provincial Growth Plan for the Greater Golden Horseshoe Area. This growth (see Figure 4) reflects provincial forecasts.

The updated Regional Official Plan allocates the expected distribution of population and jobs by local municipality, which in turn affects infrastructure needs. It is projected the cities of Vaughan, Markham and Richmond Hill, on the Region's southern border, will account for roughly three-quarters of the Region's population by 2051, similar to the current share.

In the north, the forecast for the Town of East Gwillimbury is to see its population and employment essentially quadruple by 2051. While the Town of Georgina's population increase is projected to be less than the Regional average, the number of jobs is expected to more than double.

The Region must plan now for future transportation needs in these growing communities due to the time it requires to complete major projects like road widening and rapid transit. Anticipating this growth will help to reduce service lags and congestion.

Transportation planning must also integrate with land use planning, including the type of use and expected intensity of development. Growth to 2051 will continue to be focused mainly along two Regional corridors: north-south along Yonge Street and east-west along Highway 7. This is the underlying framework for the Region's Centres and Corridors approach to achieving higher densities, as required under the provincial growth plan for the Greater Golden Horseshoe. The provincial government has recently required upper-tier municipalities, like York Region, to delineate boundaries and set minimum density targets for Major Transit Station Areas around subway, bus rapid transit and GO rail stations.



▲ Traffic congestion at Westburne Drive on Rutherford Road in the City of Vaughan.

The Region's urban system is composed of Regional centres and corridors and major transit station areas within and supporting them, local centres and corridors, community areas and employment areas and several towns and villages. All these areas play a part in accommodating forecasted growth while maintaining their character. It is intended that most new growth for both residents and jobs will be accommodated within these areas.

A3.5 Transportation landscape is changing — and quickly

As new technologies emerge and people choose different ways to travel, transportation planning is required to meet those needs. For example, if more travellers are expected to choose to walk or cycle to their destinations in the future, more walking and cycling paths will be required. The impacts of electric vehicle, e-scooter and e-bike uptake, as well as the continuation of working from home and online shopping trends, are not yet fully understood. The Region will continue to monitor these trends and adjust transportation planning as needed.

▼ Cyclist rides on multi-use path alongside St John's Sideroad in the Town of Aurora.



As the Region continues to grow, options like ridesharing, bike sharing and e-scooter rentals are likely to become more widely available in urban areas, which could change the idea of needing to own a vehicle. These options, which can help manage traffic congestion significantly, are increasingly supported by market-supplied apps that bring data and services together to show travellers the fastest way to get to a destination and allow for easy payment along the way.

There has been much discussion of the future role of autonomous vehicles. Current evidence suggests that, in the short to medium term, the most likely use will be for specific purposes, such as short-local transit trips, with dedicated infrastructure such as fiber optic cable and sensor networks (networks that allow information to be sent to and received from objects and devices), facilities for secure public Wi-Fi and faster mobile networks. Pilot projects around the world are helping to determine how autonomous vehicles might be incorporated safely and more broadly into transportation networks.

York Region has been working with various stakeholders, including the [Canadian Urban Transit Research & Innovation Consortium \(CUTRIC\)](#) to identify potential routes to pilot autonomous transit shuttles. Multiple routes have been identified for further evaluation in 2022 to determine suitability for a pilot project.

A4 Traveller feedback was vital to updating the plan

The transportation solutions recommended in the 2022 TMP are estimated to cost \$17.2 billion over the next 30 years. Where and how York Region should prioritize investments is based on comprehensive input from a wide range of transportation users and other interested parties, including:

- > Residents, neighbourhood associations and community groups
- > Businesses and industry, including the development community
- > Local municipal councils and staff
- > York Regional Council and staff
- > Conservation authorities
- > School boards
- > Emergency services, including York Regional Police
- > Neighbouring municipalities
- > Indigenous communities
- > The provincial government, including the Ministry of Transportation and its transit agency, Metrolinx
- > The federal government

Chapter C discusses input into the plan in more detail.



▲ Partnership with York Regional Police on Pedestrian Safety initiative in Holland Landing, Town of East Gwillimbury.

Despite diverse needs across the Region, all residents rely on the transportation network to connect them to homes, workplaces, local businesses, schools and other important destinations.

The Region's economy also depends on a well-designed transportation network. Businesses operate in a global economy that relies on moving people, goods and resources quickly and efficiently. Roads with robust highway, rail and air connections strengthen supply chains and get goods to market faster, while convenient public transit allows employees to get to and from workplaces.

Talking with and listening to a wide range of interested parties helped build a greater understanding of how roads and transit are currently used and, more critically, how the network needs to evolve in the future to continue meeting traveller needs. Ongoing engagement is needed to identify priorities for its transportation investments.



In this chapter...

- B1 Provincial guidance
- B2 York Region Vision, plans and priorities

▲ Runners travel along Nokiidaa Trail in the Town of East Gwillimbury.

Context

The recommendations of the Transportation Master Plan are influenced by legislative requirements of the Province of Ontario and achieve the Region's Vision of "Strong, Caring, Safe Communities." Over the next 30 years, these will continue to evolve, requiring transportation planning to be adaptable and flexible.

Figure 5 provides an overview of York Region's master planning context:



▲ FIGURE 5: Visual demonstrating how the 2022 TMP is shaped.

The next sections in this Chapter provide an overview of the provincial legislation and provincial and regional priorities, policies, and plans that were considered in developing the TMP.

B1 Provincial guidance

The provincial government sets a framework for growth and development in Ontario that municipalities must follow.

This section outlines provincial requirements and plans relevant to the TMP.

B1.1 Provincial Policy Statement

Ontario's [Provincial Policy Statement](#), last updated in 2020, provides policy direction on matters of provincial interest related to land use planning and development, including transportation facilities. The provincial [Planning Act](#) requires that all planning decisions be consistent with this statement.

The statement supports financial and environmental sustainability, encouraging, and in some cases requiring, municipalities to coordinate infrastructure projects with land use planning, make the best use of existing assets before developing new ones, incorporate green infrastructure where possible and consider climate change impacts.

The statement sets out policies to promote safe and energy-efficient transportation. This includes multiple modes of transportation such as transit, active transportation and private vehicle travel. Municipalities are expected to support this direction with compact development (an urban layout encouraging active transportation, low energy consumption and reduced pollution), mixed land uses and measures to promote a shift to transit, active transportation and other more eco-friendly transportation options.

B1.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The provincial [Places to Grow Act, 2005](#) and [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) gives the Ontario government the power to designate growth areas throughout the province and provides population and employment forecasts to 2051. York Region is part of the Greater Golden Horseshoe, an area of some 10,000 square kilometres in south-central Ontario, one of the fastest-growing areas in North America.

The provincial government requires municipalities to identify and plan for infrastructure, such as roads, transit and multi-use paths, needed to support these growth forecasts. York Region and other regional municipalities, in coordination with local municipal planners, identify where the growth can be accommodated and should be focused locally.

The provincial growth plan's policies encourage coordinated transportation planning, inter-connectedness, safety, sustainability and diverse transportation options to reduce reliance on cars.

It focuses heavily on directing growth to areas that are already built up and making intensification a priority. Strategic areas for growth in the plan include urban growth centres and major transit station areas as depicted in Figure 6.



▲ FIGURE 6: Illustration of major transit station area elements.

B1.3 Accessibility for Ontarians with Disabilities Act (2005)

The [Accessibility for Ontarians with Disabilities Act, 2005](#) sets mandatory standards for private, public and non-profit sectors to remove barriers and ensure equitable access for all individuals with disabilities by 2025. This includes, under Regulation 191 / 11, standards for planning, designing and building transportation facilities. The Region's transportation projects comply with the relevant requirements of the Act and regulation(s).

B1.4 2041 Regional Transportation Plan

Developed in partnership with municipalities and other stakeholders, Metrolinx adopted the [2041 Regional Transportation Plan](#) in 2018. This plan is the successor to The Big Move, released in 2008, which was the first regional transportation plan for the Greater Toronto and Hamilton Area, also incorporating the Regional Municipality of Waterloo.

The 2041 Regional Transportation Plan sets out a blueprint for a system that puts traveller needs first, reduces traffic congestion, improves air quality and supports economic viability through three goals: strong connections, complete travel experiences and sustainable and healthy communities.

To support these goals, it outlines five strategies:

1. Complete the delivery of current Regional transit projects.
2. Connect more of the plan area with frequent rapid transit.
3. Optimize the transportation system.
4. Integrate transportation and land use.
5. Prepare for an uncertain future.

The 2041 Regional Transportation Plan includes projects that would directly benefit travel in York Region:

- Extending the Yonge subway north from Finch Station (currently underway)
- Filling gaps in the bus rapid transit network along Highway 7 and Yonge Street
- Providing rapid transit on Jane Street, Major Mackenzie Drive and Leslie Street and, in partnership with the City of Toronto, on Steeles Avenue from the TTC line 1 to Milliken GO station
- Providing frequent Regional express bus service on highways 407, 400, 404 and 427

- Improving GO rail service to offer more frequent all-day service
- Enhancing bus service on sections of Major Mackenzie Drive, Yonge Street and Green Lane

The TMP considers the plan's timing, priorities and improvements in its infrastructure models and technical analysis. It also looks at where additional improvements will be needed to support growth in the Region, advocating for these improvements to be included in future updates to the provincial plan.

B1.5 Ministry of Transportation Greater Golden Horseshoe Transportation Plan

Released in March 2022, the [Greater Golden Horseshoe Transportation Plan](#) was developed by the Ontario Ministry of Transportation to help set priorities up to 2051, direct spending towards an optimal transportation system and prepare for new technology like automated vehicles. The goals are to support continued prosperity and quality of life while meeting environmental and social needs.

The Greater Golden Horseshoe Transportation Plan is intended to provide direction to municipalities, transportation agencies and service providers. The TMP reflects the directions, technical analysis and recommendations in the Greater Golden Horseshoe Transportation Plan.

B1.6 Provincial Environmental Assessment Act

The TMP describes the future transportation network at a high level and will be implemented through specific projects and initiatives. These projects will be subject to the requirements under the provincial [Environmental Assessment Act](#), and *Municipal Class Environmental Assessment (MCEA)*. Chapter C provides more details.

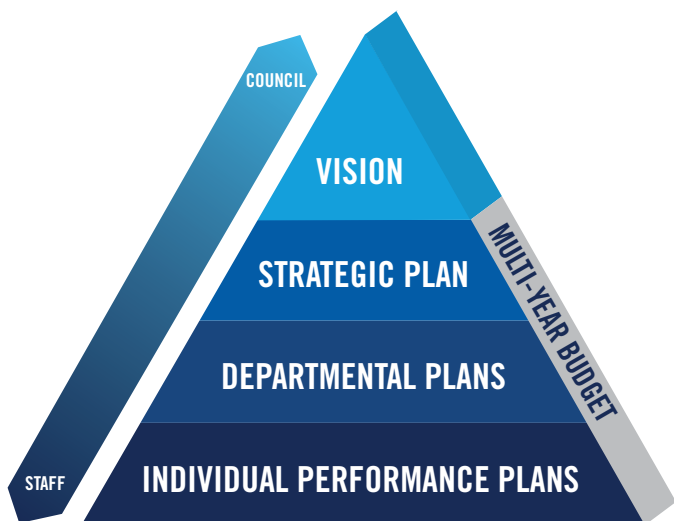
B2 York Region Vision, plans and priorities

B2.1 Vision, Strategic Plan and Regional Fiscal Strategy

[Vision](#) helps to guide Regional Council and staff decisions to achieve the quality of life residents want now and in the future. Approved by Council in November 2021, it carries forward the previous vision statement of "Strong, Caring, Safe Communities."

Vision describes a York Region that, among others, has a seamless network for mobility of goods, services and people, and promotes living sustainably. The TMP is designed to help inform and implement infrastructure needs, such as roads, transit terminals and pedestrian and cycling facilities to achieve Vision. Figure 7 illustrates York Region's accountability framework and shows how Vision guides all corporate plans.

York Region's Strategic Plan, updated every four years, is a roadmap emphasizing priorities over each term of York Regional Council that align with the long-term vision. In 2019, Council adopted the 2019-



◀ FIGURE 7: This diagram illustrates York Region's accountability framework and shows how Vision guides all corporate plans.

2023 Strategic Plan. Specific goals and objectives influencing the TMP include:

- > Increasing economic prosperity
- > Building sustainable communities and protecting the environment
- > Supporting community health, safety and well-being
- > Delivering trusted and efficient services

This Regional direction is reflected in the TMP through a proposed network that is safe and reliable, provides convenient travel options, promotes economic growth, manages congestion, minimizes impacts on the environment and is financially sustainable.

The Regional Fiscal Strategy helps to achieve long-term financial sustainability by carefully managing the Region's capital plan, reserves and debt. The strategy also influences the Region's annual budget, which includes a 10-year capital plan. Chapter G provides more information on estimated costs of the TMP and expected funding sources.

B2.2 Regional Official Plan

The [Regional Official Plan](#) outlines how future growth and development will be accommodated while meeting the needs of existing residents and businesses in the Region. Prepared with community input, it provides direction and policies guiding economic, environmental and community planning decisions. The official plans of each of the nine local municipalities must conform to the Regional Official Plan.

The Region's infrastructure plans, including the TMP and the Water and Wastewater Master Plan, are consistent with the Regional Official Plan. The infrastructure plans reflect the Regional Official Plan outlook for growth in population and employment. The Regional Official Plan is in turn informed by provincial growth plan forecasts.

Updates to infrastructure master plans are coordinated with updates to the Regional Official Plan in a process known as a Municipal Comprehensive Review. The Ministry of Municipal Affairs and Housing requires this process through the growth plan. Coordination helps to ensure consistent communication with interested parties and better integration of all plans to manage costs.

The 2022 TMP reflects the revised land use planning projections included in the Regional Official Plan updated in 2022 through the most recent Municipal Comprehensive Review.



▲ Cover page of the 2019 Energy Conservation and Demand Management Plan.

The Energy Conservation and Demand Management Plan (2019) identified a suite of projects, initiatives and other activities to position York Region to achieve its long-term aspirational goal of net-zero carbon emissions:

- > Develop an Electric Vehicle Strategy to migrate the Region's fleet of vehicles from gasoline / diesel to electricity to reduce emissions
- > Right size vehicles to match the need with the type of vehicle to ensure the most efficient vehicle is used at all times
- > Reduce fuel consumption through anti-idling and route optimization
- > Enable and maximize transportation through public transit, carpools, cycling or walking

B2.3 Climate change actions

In the face of higher-than-average temperatures and more extreme weather events, both of which can cause damage to infrastructure, communities and ecosystems, York Region recognizes the growing need to address climate change. This involves mitigation, which refers to reducing greenhouse gas (GHG) emissions and adaptation to reduce climate change risk and damage.

To help ease climate change, this TMP aims to increase the use of more active and eco-friendly modes of transportation that help to manage the demand put on the road network by single-occupant vehicles. It also supports the adoption of electric and low-emission vehicles by residents and businesses.

The Region's [Energy Conservation and Demand Management Plan](#) identifies ways to reduce GHG emissions through Regional energy use. Transit buses, fleet vehicles, trucks and other work vehicles typically account for about three-quarters of the Region's corporate GHG emissions. One objective of this plan is to position York Region to achieve its long-term aspirational goal of net-zero carbon emissions by 2051. For York Region achieving net-zero carbon emissions means that through day-to-day operations and construction practices the Region will decrease greenhouse gas emissions by building retrofits and fleet electrification and offset remaining emissions through activities like tree planting that capture and store carbon.

In [December 2020](#), York Regional Council endorsed plans to phase out fossil-fuel-powered vehicles by 2051 in both transit and corporate fleets. A short-term goal in the plan is to convert fleet automobiles to GHG emissions-free technology by 2030.



▲ York Region's charging stations for fleet vehicles and electric buses.



To date, almost 10% of the existing corporate fleet of 381 vehicles is either hybrid or fully electric. Steps are also underway to convert the Region's transit vehicles. By the end of 2021, the Region had bought and deployed 12 electric buses. The expectation is that electric versions of other vehicle types, like snowplows, will become available in the future.

Fleet electrification builds on other measures taken to reduce GHG emissions since the Region's Energy Conservation Plan was launched in 2016, such as changing operator behaviour and introducing in-vehicle technology to reduce idling and other emission sources, right-sizing vehicles and optimizing services through Mobility On-Request.

While Regional actions are important, individual residents and businesses will also need to act to achieve net-zero GHG emissions. York Region is developing a Climate Change Action Plan that identifies actions that can be taken across a range of priority areas to help address climate change. Some actions are aimed at reducing impacts, others at adapting to changes and some are designed to do both. These actions are both corporate-specific and at the community level.

The Climate Change Action Plan:

- Outlines the projected impacts of climate change on York Region
- Describes and prioritizes actions needed in three key areas: resilient communities and infrastructure, low-carbon living and supporting an equitable transition
- Identifies the role York Region will play in implementing actions
- Provides a framework for all levels of government, businesses and communities to work together

In addition to the measures described above, key actions associated with transportation include:

- Adopting emission reduction targets and guidelines for low-carbon construction practices
- Undertaking climate change vulnerability and risk assessments on all Region-owned infrastructure, systems and assets using a common methodology
- Prioritizing infrastructure and asset repairs in climate-vulnerable areas using the asset management framework

B2.4 Protecting and enhancing the natural environment

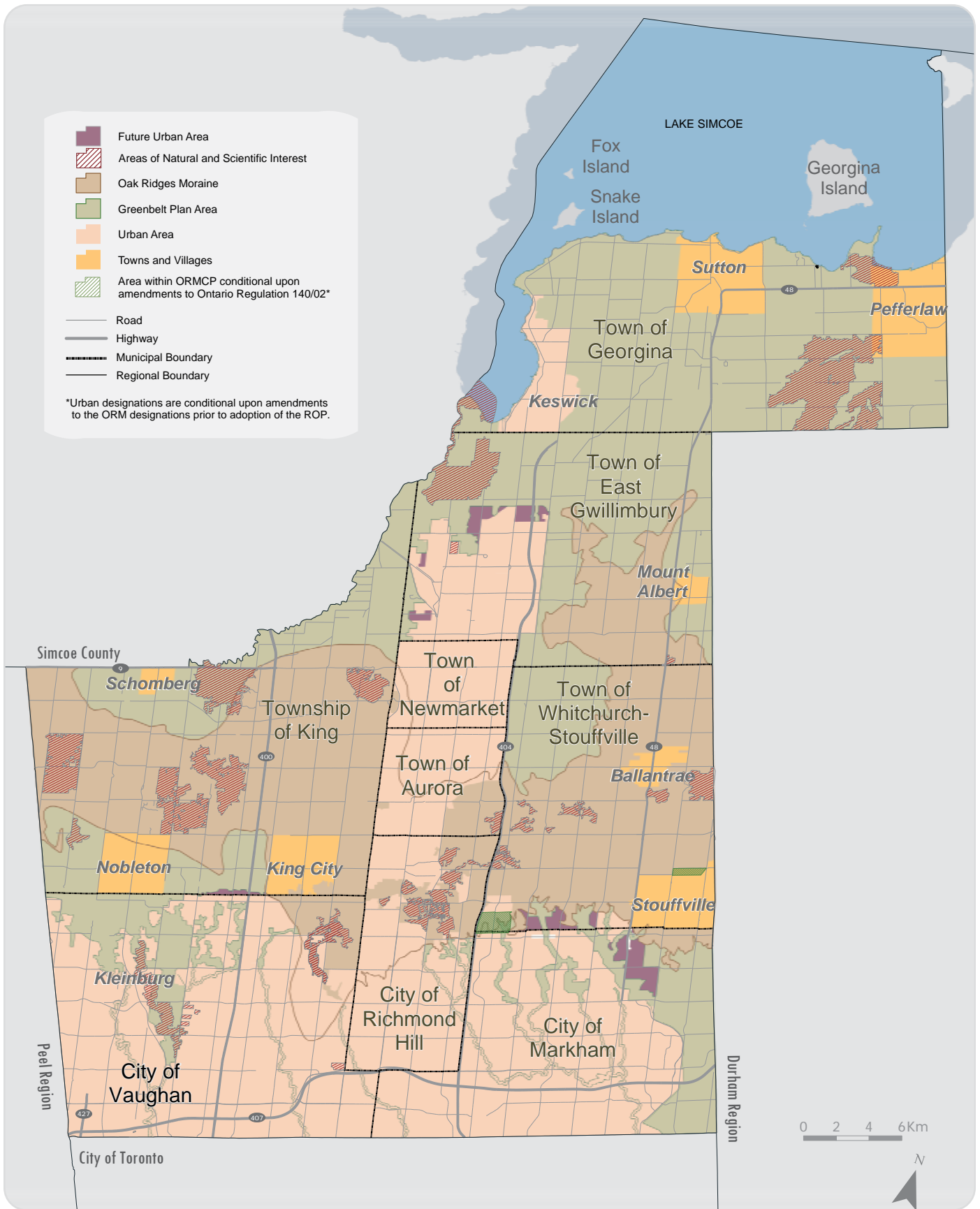
York Region has many natural heritage features. They include the Oak Ridges Moraine, the Greenbelt, Lake Simcoe Protection Plan area and numerous Areas of Natural and Scientific Interest (ANSIs), Environmentally Sensitive Areas (ESAs), lakes, watercourses, wetlands and woodlots. The map shows the Oak Ridges Moraine, Greenbelt, and Areas of Natural and Scientific Interest in York Region. Further maps showing the Regional green lands system, key hydrologic features, woodlands, wellhead protection areas, Oak Ridges Moraine aquifer vulnerability areas and watershed boundaries as well as agricultural and rural areas are included in the York [Region Official Plan](#) and were referenced in the development of this TMP.

Natural heritage features, along with forestry, agriculture, source water areas, are a key consideration in the evaluation of road and transit projects. As described in Chapters C and G, for required projects, York Region is committed to completing phases 1 through 5 of the Municipal Class Environmental Assessment for each transportation project in the TMP. Detailed assessment of the natural, social, and economic environments which are to be considered when reviewing the effects of each project.

York Region has created a Greening Strategy with the goal of fostering strong and sustainable communities with healthy natural environments. Green infrastructure takes many forms including natural environment lands and features, street trees, agricultural lands, green roofs and green walls, parks, gardens and stormwater ponds. These features provide health, environmental, social and economic benefits to communities. Studies have shown that forests improve air quality, provide natural shade, reduce urban heat island effects, lessen climate change, reduce energy consumption, reduce flood risks, improve water quality and water quantity and reduce the risk of developing chronic diseases. One part of its environmental land securement plan is to create natural heritage trail linkages.

Another element of the Greening Strategy is to create natural heritage trail links to help extend the active transportation network of pathways and trails. The Region owns and manages the 2,500 hectares made up of 24 forest tracts, which offer more than 150 kilometres of public trails.

The Region is working in partnership with local municipalities and other stakeholders to create links among all natural trails, also a goal of the 2022 TMP.



▲ This map shows the Oak Ridges Moraine, Greenbelt and Areas of Natural and Scientific Interest in York Region which are taken into consideration as part of environmental assessments for each project.

▼ Photo of pedestrians on a boardwalk overlooking the Holland Marsh near 2nd Concession, Town of East Gwillimbury.



B2.5 Collaboration and partnerships

York Region works with internal partners such as Public Health and York Regional Police and with local municipalities, school boards, Indigenous communities and other external partners to support a Regional transportation system that is safe, accessible and equitable.

Important goals of these partnerships include better health for people and communities, promoting active transportation to schools, making roads safer and encouraging cycling, carpooling and other eco-friendly travel options. Section D3.3 outlines how the TMP supports these goals.



▲ Aerial view of Major Mackenzie Drive West in the City of Vaughan including agricultural land and storm water management ponds.

In this chapter...

- C1 The Plan followed recommended processes
- C2 Consultation and engagement were key elements in updating the TMP
- C3 Indigenous Communities Engagement
- C4 Discover, Explore, Reveal
- C5 Approach to planning has evolved

Framework and approach

C1 The Plan followed recommended processes

The provincial [Environmental Assessment Act](#) provides a streamlined approval process, called the municipal class environmental assessment, for projects that are similar in nature, are carried out routinely, have a predictable range of environmental effects and respond to mitigating measures. The Region's transportation projects are typically completed under this framework.

The Municipal Engineers Association provides a manual to guide the municipal class environmental assessment process. The guidance defines master plans for infrastructure as "long range plans which integrate infrastructure requirements for existing and future land use with environmental assessment planning principles." Master plans are often updated in conjunction with other plans, as discussed in Chapter B.

The 2022 Transportation Master Plan:

- Evaluates needs at a strategic, system-wide level, allowing the Region to look at the transportation system as a whole and make recommendations for improvements
- Considers the broad land use and environmental context
- Looks at infrastructure geographically and / or by function

- Can be implemented through individual projects

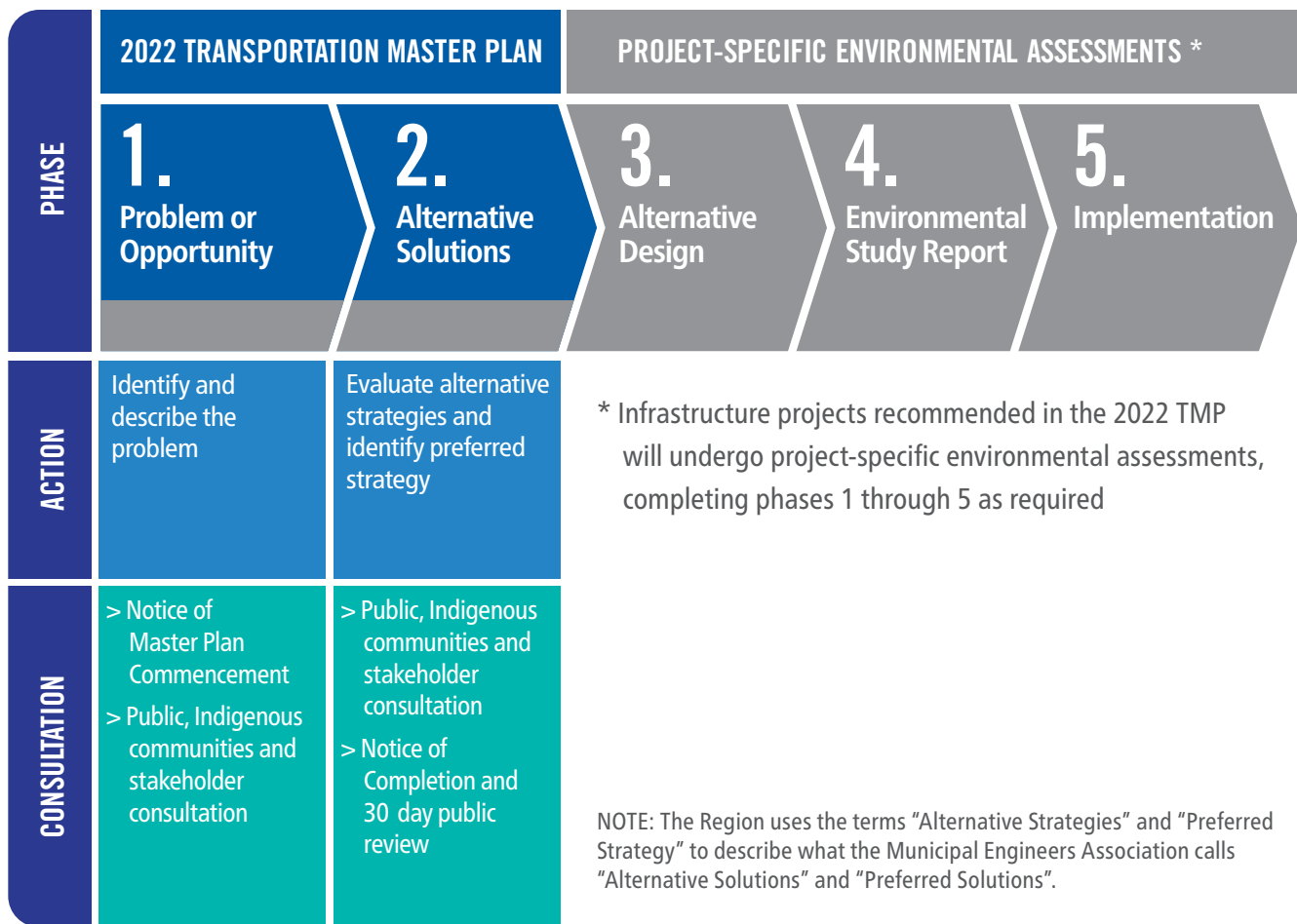
The outcome is a high-level plan identifying and justifying the need for future individual projects.

The municipal class environmental assessment process consists of five phases, and a master plan must address phases 1 and 2 at a minimum.

The Region followed Approach 1 for master plans set out in Appendix 4 of the Municipal Engineers Association Municipal Class Environmental Assessment document. This document fulfills the requirement in Approach 1 that decisions be documented at the end of Phase 2.

Approach 1 involves looking at the current road, transit and active transportation networks and expected needs to make recommendations on future projects. The foundation for understanding current conditions is the Transportation Tomorrow Survey, which is normally carried out every five years as a co-operative effort by local and provincial government agencies. Major trends are highlighted in Chapter D. Chapter E then presents a high-level discussion of projects to meet expected needs using tools, such as a model, to analyze travel demand and forecast the impacts of growth on the network.

The municipal class environmental assessment process requires more detailed investigation of each project as the plan is implemented, as outlined in phases 3, 4 and 5 in Figure 8 (see next page).



▲ FIGURE 8: Municipal Class Environmental Assessment Process.

C2 Consultation and engagement were key elements in updating the TMP

The Region consulted and engaged with a diverse and inclusive range of travellers, residents, Indigenous communities, community partners, stakeholders and other interested parties in updating the TMP.

The TMP utilized a variety of engagement tools to seek resident, local municipal and stakeholder input. Those identified as having an interest in the TMP were notified of opportunities to give feedback at each milestone. The engagement opportunities used during the TMP study included:

- > Three virtual public information centres (PIC) (July 2021, October 2021, April 2022), supporting advertisements, social media campaigns and email outreach
- > Public opinion and stakeholder group surveys
- > Government Agency Partnership Advisory group meetings and outreach (March 2021, September 2021, March 2022)
- > Meetings with York Region and local municipal accessibility advisory committees
- > Meetings with York Region's Agriculture and Agri-Food Advisory Committee
- > Presentations to local municipal councils

- > Meetings with Indigenous communities coordinated with the Municipal Comprehensive Review and Water and Wastewater Master Plan update
- > Meetings with BILD (Building Industry and Land Development) Association in conjunction with the Development Charges Bylaw
- > Regional Councillor and Heads of Council interviews

In-person events were not possible due to restrictions related to the COVID-19 pandemic.

To better understand the needs of residents and businesses owners in York Region, a market research firm was hired to conduct randomized telephone and online Transportation and Community Values surveys. The surveys collected information about travel patterns, behaviours and transportation preferences today and how they may change in the future. The telephone survey sampled approximately 1,000 people across the Region's nine local municipalities and was designed to provide statistically valid results. Approximately 750 responses were also received through an online survey posted on the project web page. The rest of this chapter provides highlights of these findings. This survey was supplemented with targeted micro-surveys to further understand the needs of travellers of all ages, incomes, and abilities.

Feedback was taken into consideration when updating the TMP, as discussed in chapters E and F. All input about the TMP received throughout the consultation and engagement process was reviewed and considered for inclusion in the final plan. More information on the consultation and engagement approach and those identified as having an interest can be found in the plan's supporting documents, which are available upon request.

C3 Indigenous communities engagement

Engagement with Indigenous communities was coordinated through the Municipal Comprehensive Review process to update the Regional Official Plan and Transportation and Water and Wastewater master plans. The Region coordinated engagement with each community individually based on its interest, capacity and availability as there is currently no provincially approved framework for engaging Indigenous communities. This engagement was initiated specifically with this plan in addition to a consultant and Indigenous facilitator supported all engagement activities when meeting with Indigenous communities. The opportunity to engage with and learn from Indigenous communities was valuable, as the communities' unique historic and cultural relationship to the land and water gave rise to important perspectives on managing the natural environment and land resources. The Region looks forward to continuing these conversations.

Feedback was received from several Indigenous communities and is summarized below:

- Indigenous communities encourage York Region to develop lasting, long-term relationships; this would provide a more proactive approach to involve communities in projects and initiatives at the outset allowing time for meaningful engagement and input
- Many comments focused on protecting and sustaining the natural environment to address impacts arising from growth that may affect traditional Indigenous ways of life:
 - Understanding the cumulative impacts of development on lands
 - Protecting natural habitats in the transportation planning processes
 - Ensuring inclusion of Indigenous communities in archaeological studies
 - Opportunities to collaborate on presenting traditional travel routes along ancestral lands and natural heritage

York Region acknowledges the relationship Indigenous communities have with the natural environment and the central importance of land in the culture and lives of Indigenous people. York Region is committed to protection of the natural environment not only in the present, but also over the long term for future generations by:

- Sharing the importance of traditional lands and continued need for conservation and stewardship within its communities
- Continuing to deliver high-quality transportation services

Implementation of projects identified in the Master Plan will also recognize the archeological importance of the lands in York Region to Indigenous communities and will follow applicable regulatory requirements to consult and engage communities with Aboriginal or Treaty rights.

York Region notified the following Indigenous communities through PIC Notices, correspondence and meetings (where possible):

- Chippewas of Georgina Island First Nation
- Chippewas of Mnjikaning First Nation (Chippewas of Rama First Nation)
- Coordinator Williams Treaties First Nations
- Beausoleil First Nation
- Hiawatha First Nation
- Curve Lake First Nation
- Alderville First Nation
- Mississaugas of Scugog Island First Nation
- Mississaugas of the Credit First Nation
- Six Nations of the Grand River
- Haudenosaunee Confederacy Chiefs Council
- Kawartha Nishnawbe First Nation
- Huron-Wendat Nation
- Métis Nation of Ontario

C4 Discover, Explore, Reveal

Engagement focused on three elements: discover, explore and reveal, as shown in Figure 9.

Discover: Needs and opportunities

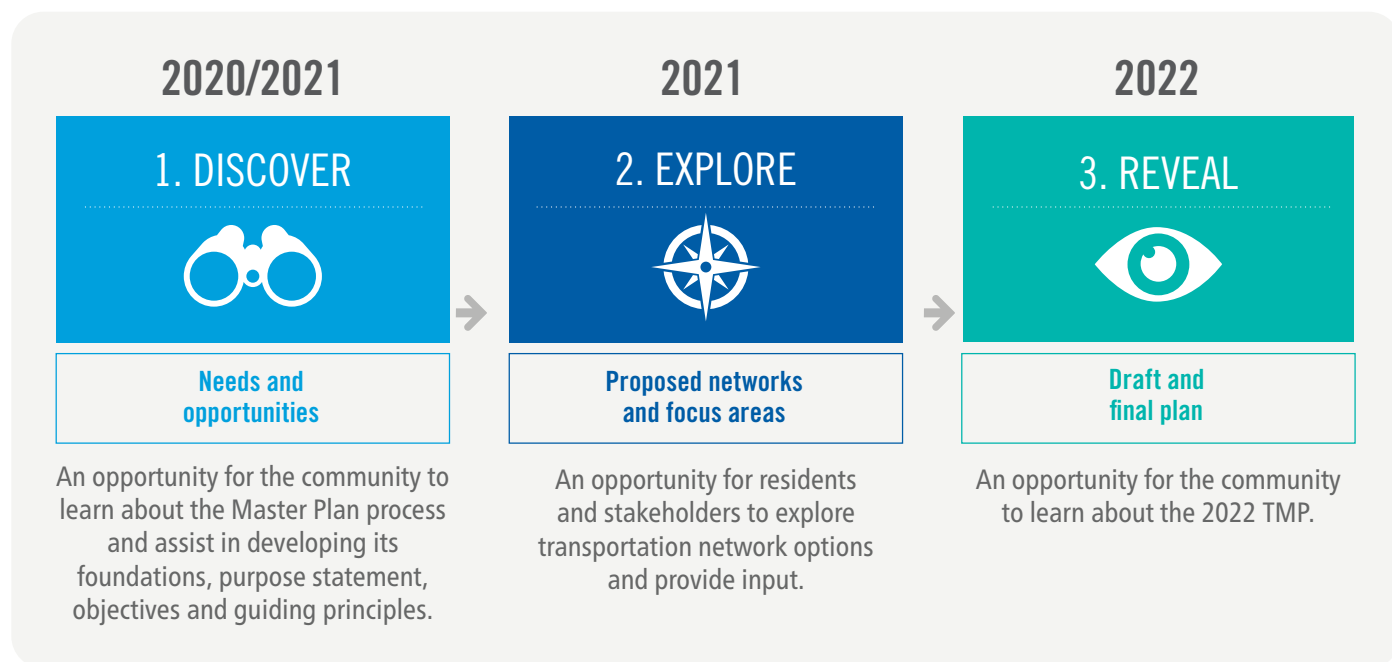
Discover was the first phase of the TMP study. It provided an opportunity for the community to learn about the master plan process and to envision the future of transportation in York Region. By first identifying transportation needs and future opportunities, this element of engagement focused on developing the foundations of the TMP:

- Purpose statement, which serves as the vision for the 2022 TMP, with all recommendations in the plan aiming to help achieve this vision

- Objectives, which support the purpose statement in the short to medium term as projects are delivered
- Guiding principles, which reflect the Region's values and guide how to realistically achieve the purpose statement

Chapter D provides more detail on each of these elements.

The TMP purpose statement: “Plan, build, operate and maintain a connected transportation network for all travellers that is safe, reliable, future-ready, sustainable and balances the needs of the unique communities we serve.”



▲ FIGURE 9: Three elements of focus during the engagement phase of the 2022 TMP.



Explore: Proposed networks and focus areas

This element focused on encouraging residents and interested parties to explore transportation network options and provide input through a variety of engagement tools including an interactive mapping tool and a virtual idea wall. This input helped shape the proposed active transportation, rapid transit and road networks described in Chapter E and areas of focus discussed in Chapter F.

Reveal: Draft and final plan

The third and last step was to reveal the outcomes of engagement, technical assessment, background studies, planning and other work that went into drafting the 2022 TMP, including:

- > The purpose, objectives and guiding principles
- > Recommended transportation networks
- > Areas of focus for further study and action
- > Approaches to funding and implementing the transportation plan

Through the engagement process, staff learned residents and stakeholders see connected communities and safe, sustainable and convenient travel options as high priorities. While most residents now travel mainly by car, many are interested in using other options.



▲ TOP: York Region staff discuss boulevard plans and drafting of Regional roads.
 BOTTOM: A cyclist and vehicles at the intersection of Keele Street and Major Mackenzie Drive in the City of Vaughan.



▲ Buses stop to pick up and drop off riders at the Allstate Parkway Vivastation on Highway 7 in the City of Richmond Hill.

C5 Approach to planning has evolved

Transportation Operations, Public Works gained valuable insights since the 2016 TMP and relied on those learnings when developing an approach to this Master Plan.

External factors with long-term impacts, including climate change, disruptive new technologies and the COVID-19 pandemic, served as a reminder that all plans are subject to uncertainty. In addition, the Region's fiscal capacity did not allow some proposed projects to move forward.

The Plan is therefore based on the following principles:

Be more flexible and agile.

Adapt to factors like changing travel behaviour and patterns, global events, technological innovation, shifting provincial priorities and regulatory changes as the plan is put into action. Also be ready for the future and able to change direction when entirely new ideas or approaches emerge.

Advocate for the big projects the Region needs.

This plan identifies all projects needed to serve future growth, while at the same time, it must be financially sustainable. The Region cannot independently fund several major projects discussed in this plan, including Regional interchanges with new, expanded or upgraded 400-series highways, the remaining portion of the bus rapid transit network, further subway extensions and complex projects to close gaps on Teston and Langstaff roads. These projects benefit not just the Region, but the economy of Ontario as a whole. Advocating for the provincial and federal governments and other potential funders to share in those costs will be crucial going forward.

Watch the fiscal and environmental bottom lines.

As previously mentioned, the TMP must align with the Region's ability to pay for it. Through its fiscal strategy, the Region reduced its reliance on borrowing funds and, as a result, saw its debt levels peak in 2017. Since then, however, the need to fund its share of

the subway extension to the City of Richmond Hill means it will face a new and higher debt peak in 2028. This calls for prudence in planning growth-related capital investments. Planning also needs to reflect the environmental impacts, both of constructing the network and how it will be used. This is discussed in more detail in Chapter G.

Seek out and respond to opportunities.

Respond to federal and provincial funding opportunities and explore public-private partnership opportunities. Potential public-private partnership opportunities include transit-oriented development around major transit hubs and new developments.

Engage more often and more broadly.

Use a variety of techniques / tools, such as online surveys, social media and virtual and post-pandemic in-person opportunities, to ensure as many voices as possible continue to be heard.



▲ TOP: York Region staff discuss and collect feedback on proposed changes to public transit system at a Public Information Centre held in 2019.

▼ BOTTOM: A screenshot of a virtual engagement and public consultation in 2022 using an interactive mapping tool to gather feedback from attendees on areas throughout York Region.





In this chapter...

- D1 Travel patterns are changing
- D2 Foundations of the 2022 Transportation Master Plan
- D3 2022 Transportation Master Plan reflects evolving attitudes and options

▲ Cyclist travels on separated bike path along St John's Sideroad in the Town of Aurora.

Listening and learning

Transportation is changing dramatically around the world and within York Region due to increasing urbanization, new technologies and climate risks. The pace of change makes it more important than ever to listen to users of the transportation network and learn from their ideas and expectations while updating the Transportation Master Plan.

D1 Travel patterns are changing

The engagement described in Chapter C made it clear residents understand the connection between how transportation is provided and how welcoming and livable a community is. While residents want to be able to easily get to transit hubs, schools and stores in their communities and even to further destinations using options other than their car, they want to feel safe and supported while doing so.

These themes are not new, as they have been raised in previous TMP updates. What is new, however, is the extent to which residents are not just talking about these changes — they are adopting them:

- People are walking or cycling more, especially for shorter and non-work-related trips:
 - Trips by walking and cycling grew by 30% between 2011 and 2016, after being near flat in the previous five years
 - The number of car trips of less than 2 kilometres fell by 21.6% from 2011 to 2016, reaching a level slightly below that in 2006

- Car use decreased from 86% to 83% of total non-work trips between 2011 and 2016

Source, [Transportation Tomorrow Survey](#)

Possible factors behind this major shift could include increasing traffic congestion, higher-density growth putting more destinations within easy reach, the availability of more transit options and more accessible sidewalk and cycling infrastructure.

Another notable trend is total trips by all modes not growing as fast as the population over the same period. This may be related to retirement: in the 2021 telephone survey carried out for the TMP, just over one in five residents said they were retired, with the highest proportion in the City of Richmond Hill at 28%. Another factor is that even before the COVID-19 pandemic, more people were working from home some or all of the time and doing more shopping online.

Over the longer term, there has been a trend towards greater use of transit. Data from the 2016 Transportation Tomorrow Survey show that transit mode shares have increased since 2001, while auto driver shares decreased. This means transit trips are increasing at a faster pace than car trips.

Recent transit ridership figures and traffic counters show:

- Ridership increased to 10.1 million in 2021, but continues to remain low compared to pre-pandemic ridership of 22.9 million in 2019
- At the onset of the pandemic, YRT ridership was approximately 20% of pre-pandemic ridership.



▲ Passengers board a York Region Transit bus at the SmartVMC Bus Terminal in the City of Vaughan.

- In 2022, YRT ridership was approximately 60% of pre-pandemic ridership and is expected to continue growing gradually
- GO Transit ridership in York Region was approximately 5% of pre-pandemic ridership. A Metrolinx survey in 2021 found that users expected their main transit use in the future would not be commuting to work but instead taking personal / pleasure trips
 - The TTC Line 1 Subway extension opened in December 2017 and provided 4.5 million passenger trips in York Region throughout 2019
 - The Highway 7 East and Davis Drive rapidways have proven to be a positive investment with ridership increasing approximately 23% and 55% respectively
 - Ridership declined on routes along rapidway construction corridors due to traffic delays. In 2019, ridership on routes along rapidway construction corridors decreased by about 1.1 million or 9%, compared to 2015
 - The Highway 7 West, Yonge Street North and Yonge Street South rapidways opened in November 2019, January 2020 and December 2020, respectively, but did not realize potential ridership gains due to the COVID-19 pandemic
 - Traffic on the road network also fell in early 2020, although recovery was quicker: by 2021, volumes were back near pre-pandemic levels. The pattern, however, had changed, with a flattening of the historic morning and evening peaks
 - Workplace closures and a shift to working from home sparked major interest in active transportation. Studies in 2020 estimated that for the Greater Toronto and Hamilton Area as a whole, walking and cycling trips during the morning rush hour increased by 83% from 2016. Visits to york.ca for cycling and trail information more than doubled between 2019 and 2020

Recent trends and survey data considered while updating the Master Plan are summarized in the following sections. For more information about the survey, visit york.ca/TMP.

► Individual working on laptop in home office.

D1.1 Most want to continue working from home at least part of the time

The longer-term impacts of the move to working from home are not yet clear, but [Statistics Canada surveys](#) show that most employees want to continue working from home at least some of the time after the COVID-19 pandemic. A survey by the Workforce Planning Board of York Region indicated that many employers also support working from home in industries where this is feasible.

At the time of the TMP telephone survey, more than half of those in the workforce were working from home, with 70% indicating they were both working from home and at a worksite (hybrid). Three in ten workers across the Region were working on-site only, the highest proportion being in the northern six communities. Overall, about 80% of those who travelled to a worksite used a private vehicle.

Before the COVID-19 pandemic, travelling to a worksite was by far residents' main use of the transportation system and, as such, contributed to increased rush-hour congestion. A permanent shift to working from home for some business sectors would have profound impacts on the transportation system within and beyond the Region. For example, the Region's network of Bluetooth sensors showed travellers on the road system in the morning rush hour were able to travel 15% faster than before the COVID-19 pandemic, averaging 46 kilometres per hour. This reflects a flattening of the morning peak volume, with evening peak showing a similar decline.



D1.2 Interest in other travel options is growing

The telephone survey also carried out for the 2022 TMP found that 36% of respondents would like to travel to work or school by some means other than a private vehicle. Prior to the COVID-19 pandemic, upwards of 90% of trips to work or school were by private vehicle. Barriers identified in the survey to using other modes include the convenience of a car for making multiple stops and carrying groceries or sporting equipment, the extra time required to use another mode of transportation and a lack of cycling, walking and transit infrastructure.

Across the Region, the preference for options other than private vehicle travel was highest in the City of Richmond Hill, at 47%, with transit taking a 24% share against 18% for the rest of the Region. Cycling and walking were also more favoured in the City of Richmond Hill than in the Region as a whole.

Travelling to work or school by options other than private vehicle was favoured by more than half of the approximately 750 individuals who completed a similar survey online. Their ideal travel choices were transit, cycling and walking in that order, and the major barriers to using these were trip time and lack of infrastructure. These responses reflect an average younger age among online survey participants.

D1.3 A larger share of people both live and work in the Region

The percentage of people who both live and work in York Region has been gradually increasing for many years, reaching 56% in 2016. This trend may help explain the growth in morning peak car trips, despite strong ridership gains for the GO Transit system, which is oriented towards Toronto-bound commuters.

D1.4 A shift to electric is underway among car owners

Despite more walking and cycling for trips under 2 kilometres, car ownership is still considered high in the Region, with 88% of telephone survey respondents reporting they were car owners. This compares to roughly 72% across the City of Toronto, with ownership rates in its suburbs similar to the Region's but under 50% in some downtown areas. In York Region, however, there is no clear correlation between population density and car ownership.

Increasingly, cars on York Region's roads are powered by electricity instead of fossil fuels. Electric vehicles include hybrid, plug-in hybrid electric and electric vehicles where either a portion of or all of traditional combustion engine is replaced by an electric engine. Just under 10% of York Region car owners reported owning an electric or hybrid vehicle in the 2021 surveys carried out for the TMP, which is higher than the Canadian average.

While comparable Regional data from earlier years is not available, the adoption of hybrid and electric vehicles is growing rapidly in Canada. Hybrid, battery electric and plug-in hybrid vehicles accounted for 9.5% of total new registrations in the first half of 2021, up from 5.5% a year earlier, according to Statistics Canada.

The trend away from fossil fuel vehicles is likely to continue as the Government of Canada has set a mandatory target for all new light-duty cars and passenger trucks to be zero-emission by 2035, accelerating Canada's previous goal of 100% sales by 2040. Among survey respondents who do not already own an electric or hybrid vehicle, 43% of those surveyed by telephone and 58% of those surveyed online said it was somewhat or extremely likely they would choose an electric or hybrid option for their next vehicle. The likelihood rose with income level. The Federal Government through the [2030 Emissions Reduction Plan](#) has sales targets for zero-emission light-duty vehicles of 20% share by 2026, at least 60% by 2030 and 100% by 2035. The Region also continues to leverage federal funding to build electric vehicle charging stations at Regional facilities to support transition to electric vehicle. By the end of 2022, York Region will have 64 publicly accessible electric vehicle chargers across 12 locations.



By the end of 2022, York Region will have 64 publicly accessible electric vehicle chargers across 12 locations.

There are concerns that electric vehicles, while beneficial to the environment, could have negative impacts on the transportation system. If drivers of electric vehicles follow the same travel patterns as in the past, traffic congestion could continue to be a problem. The UK-based Centre for Research into Energy Demand Solutions suggests a switch to electric vehicles might worsen congestion because operating costs are low, meaning there is the potential for more vehicles on the roads taking more trips.

Electrification could both help the environment and manage congestion if e-scooters and other micromobility options were more widely used. The Ontario Ministry of Transportation regulates the use of e-bikes under the [Ontario Highway Traffic Act](#). They are permitted on roads and highways where conventional bikes are permitted, unless specifically prohibited by a local restriction. Beginning January 1, 2020, the ministry launched a five-year pilot framework to permit e-scooters.

York Regional Council approved a bylaw change in 2020 to allow e-scooters and e-bikes in Regionally designated bike lanes and high-occupancy vehicle (HOV) lanes in line with provincial guidance. This demonstrates the Region’s commitment to allowing and encouraging more sustainable transportation options that get people out of their cars, especially during peak travel periods.

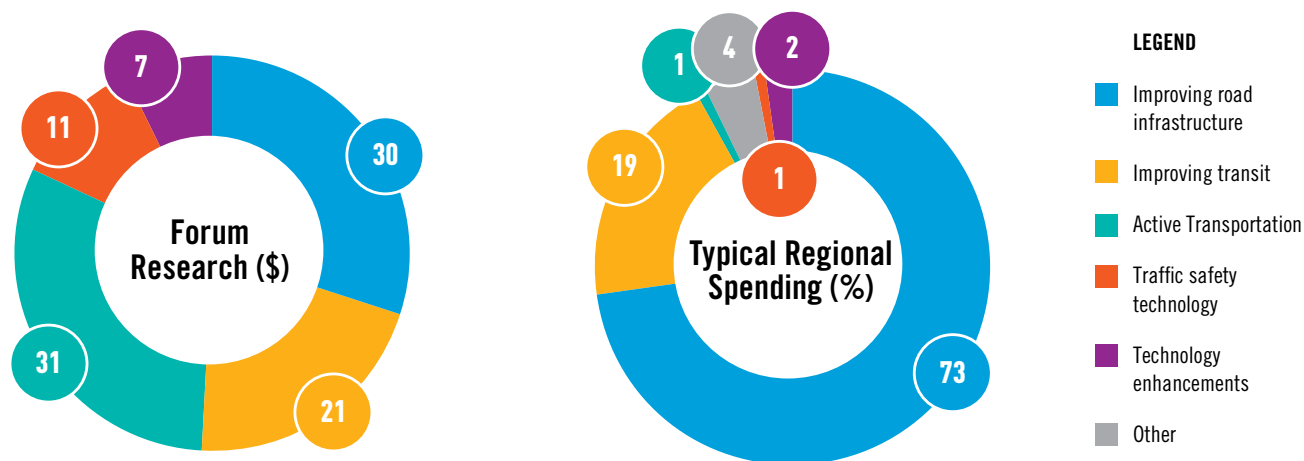
Chapter F discusses the consideration to extend their use to multi-use paths and trails.

D1.5 Respondents would invest half the budget in transit, walking and cycling options

Survey participants were asked how they would spend \$100 on transportation options. Investments in transit, pedestrian, cycling and multi-use path options were given a total of \$52 by telephone respondents and more by online respondents.

Improving road infrastructure was given \$30 on average by the telephone respondents, with the remaining \$18 going to technological improvements and safety measures.

Figure 10 shows a comparison of the survey results and York Regions 10-year roads and transit capital budgets. Although improving road infrastructure is shown as significantly higher at 73% compared to the



▲ FIGURE 10: As this comparison shows, survey respondents would spend more on active transportation and transit than in a typical Regional budget.

30% shown in the survey, the Region's roads projects include investments in active transportation and safety infrastructure, which bring the charts closer in practice. Based on feedback received through the TMP, the Plan identifies key transportation issues, or Focus Areas, for further study and exploration including Safety for all travellers, Reduce Car Travel, and the Role and Function of Regional Corridors, Transportation Equity and Environmental and Fiscal Sustainability. More information on the focus areas can be found in Chapter F.

D1.6 Youngest and oldest age groups least likely to own / drive a car

Mirroring a widespread trend, young people in York Region are now less likely to get a driver's licence soon after turning 16. In 1991, 82% of those aged 18 to 24 had a licence, but this figure had dropped to 69% by 2016. The telephone survey found that 58% of those aged 18-24 own a vehicle, significantly less than older respondents.

The current pattern, however, is that driving increases once people get their first job and form their own families. Survey results from 2016 show that among those aged 25 to 64, some 83% are drivers — the highest share of any age group. Driving then declines, falling to 76% in the 65-74 age group and 65% for those 75 and older.



▲ Transit riders taking a bus to school.

The cost of purchasing a car has also increased due to a supply challenge caused by the COVID-19 pandemic, which may further contribute to fewer people owning cars.

The survey results have different implications for the transportation network, based on respondent age. Walking, cycling and transit are modes of transportation that most young people readily use instead of driving. The question is whether these will remain viable choices as they are employed and form their own households.

For older individuals who have driven their entire lives, giving up driving can feel like a major loss of freedom and the survey data suggests they are resistant to other options like transit, walking and cycling.

D1.7 Residents and stakeholders value fiscal prudence and innovative solutions

Feedback from the engagement process also stressed the importance of staying within the Region's budget by taking a "common sense" approach to spending. In addition, it was suggested the Region should work closely with its partners and explore opportunities for innovation in programs and infrastructure.

D2 Foundations of the 2022 Transportation Master Plan

The engagement, research and data collection described in Section D1 helped in the development of the strategic direction of this TMP by pinpointing what is important for the plan and why. The purpose statement, guiding principles and objectives below capture this direction.

These foundational elements in turn provide the basis for moving forward as outlined in Section D3, which sets out what the Region needs to do at a broad level, while Chapter F outlines focus areas for future work over the short term.



Guiding Principles: Reflect York Region's values and set the direction for realistically achieving the purpose statement.

Objectives: Guide the delivery of projects over the short and medium term.

Focus Areas: Identify short and medium term implementation priorities that support the objectives of the TMP.

▲ FIGURE 11: Pyramid demonstrating the 2022 TMP process.

D2.1 Purpose Statement

Plan, build, operate and maintain a connected transportation network for all travellers that is safe, reliable, future-ready, sustainable and balances the needs of the unique communities we serve.

The purpose statement serves as the vision for the 2022 TMP, and all recommendations in the plan aim to help achieve it. Feedback on the vision was positive, especially with the focus on safety, fiscal and environmental sustainability, connectivity, diversity and adaptability.

D2.2 Guiding Principles

The guiding principles reflect York Region's values and set the direction for realistically achieving the purpose statement. Future transportation initiatives should support one or more of the following principles:

- > **Safety:** Measures that help reduce transportation-related fatalities and serious injuries with a focus on vulnerable road users
- > **Inclusive and equitable:** Transportation infrastructure, programs and services that are available to all residents, regardless of location, personal abilities, age, gender, income, culture or faith
- > **Protect the environment:** Addresses transportation needs with consideration for social and environmental impacts
- > **Affordable today and tomorrow:** Balances the transportation costs and needs of the present without compromising the ability of future generations to meet their own needs
- > **Balance the needs of communities and commuters:** Develop a transportation network that considers both the movement of people and

▷ **OPPOSITE PAGE:** Intersection of Highway 7 and Millway Avenue in the City of Vaughan showing vehicular traffic, buses, pedestrians and cyclists.

goods and the importance of community building and neighbourhood placemaking and paying particular attention to creative patterns of use and the physical, cultural, and social identities that define a place and support its ongoing evolution

- > **Future-ready:** Transportation solutions and initiatives that are flexible and can be adapted to address changing needs, processes and technologies

The feedback from consultation and engagement through the TMP showed general agreement with the principles and approval of a focus on people (not just drivers) living and travelling safely in sustainable, complete communities. Complete communities are described in more detail in Section D3.3.

D2.3 Objectives

The objectives are intended to support the purpose statement in the short to medium term as projects are delivered.

- > **Make the best use of infrastructure and services:** Maximize the effectiveness of the existing road network
- > **Encourage all types of travel:** Design regional roads to accommodate all ages, abilities and modes of travel, including active transportation, transit, passenger vehicles and goods movement
- > **Provide a resilient and adaptable transportation network:** Adaptable to changing social, environmental, financial and technological landscapes

- > **Enhance partnerships:** Recognize the importance of collaborating with the public, business, non-profit organizations and public sector to provide transportation infrastructure, programs and services
- > **Actively engage and share information:** Learn from all residents and stakeholders
- > **Align project costs:** Ensure project costs are consistent with the Region's fiscal strategy and the 10-year capital plan and obtain Regional Council approval annually

The draft objectives were well received by stakeholders and comments indicated approval of focusing on resiliency, connectivity, a range of travel options and partnerships.

D3 2022 Transportation Master Plan reflects evolving attitudes and options

The engagement and surveys discussed in this chapter show travel patterns across the Region have been changing for some time and will continue to do so, especially where active and eco-friendly options are concerned. At the same time, new transportation options and ideas, like micromobility, are emerging.

The TMP process brought these streams together and used the principles and objectives outlined above to develop a plan that supports and guides progress towards the transportation system the Region will need over the next 30 years. This section outlines key themes, and Chapter G provides more details on future work that will continue to inform the Region's plans.



D3.1 Making life without a car an option

Not all residents can afford a car, or are willing or able to drive, as the telephone survey results showed:

- Those earning less than \$60,000 were significantly less likely to own a vehicle than higher-income earners
- Younger residents are less likely to drive compared to those aged 25-64 and are comfortable with other transportation options
- Older drivers might be at risk of losing their independence once driving is no longer an option

For those living on a low income, finding an affordable place to live in the Region can also be a challenge. From 2008 to 2020, average home resale prices increased by 155%, while household incomes rose by only 20%. In addition, York Region has the lowest share of rental units across the Greater Toronto and Hamilton Area. The survey done for the Plan found that among those considering a move out of the Region, the cost of living and housing affordability were the top reasons.

The link between housing affordability and access to more travel options is a key factor in planning communities. If the only low-cost housing is far from workplaces and is poorly served by transit or other options, low-income residents may need to have one or more cars, which cuts further into their income.

The Region is helping to address this issue in its planning for urban centres and major transit station areas. The York Region Official Plan requires that 35% of new housing in these areas be affordable, while 25% of new housing be affordable outside these specified areas. The goal is to increase the percentage of affordable housing and give residents with the greatest need better access to work, school and other important destinations.

For many young people, the Region may not be the place where they will live long term: the survey found almost half of respondents aged 18 to 24 expect to leave. The most frequent reasons cited were the distance from school or work and the high cost of living, including housing. Keeping more young people in the Region may depend on creating communities where owning a car (a major expense) isn't necessary even after getting a job and forming a household.

▼ Pedestrians use a multi-use path in German Mills Settlers Park in the City of Markham.

The telephone survey also found that, compared to younger respondents, a far smaller number of those over 65 would consider a switch to transit, cycling or walking instead of driving. As they age, many residents are less inclined or able to drive. Without access to another way to travel, this severely limits their ability to get around and increases their risk of social isolation, both of which might make it hard for them to continue living independently. This is another instance where creating communities in which car ownership isn't needed is important.



D3.2 Making transportation healthier

York Region's transportation system has an important role to play in improving residents' health. Chronic diseases such as diabetes, hypertension and heart disease are the main cause of illness and death in the developed world, including York Region, and physical inactivity is a major contributor.

Walking at the beginning or end of a trip taken by public transit is an excellent way to increase physical activity. Shifting away from vehicle use towards active transportation and public transit is also linked to less air pollution and a lower risk of traffic-related injuries.

Moving to an electrified transit and corporate fleet will also improve air quality and reduce noise pollution in communities, which will provide further health benefits.

As the survey results show, many residents would like to walk, cycle or take transit more but have concerns about how convenient it is, how much time it takes, if it's safe and whether the related infrastructure is in place.

D3.3 Creating complete communities and complete streets

York Region envisions a complete community as one that meets people's needs for daily living through all stages of life. Homes are close together, destinations like schools, natural areas, shops and workplaces are easy to get to by active or eco-friendly transportation and accessibility needs are met. Housing options are available at a range of price points and residents benefit from local jobs, services, clean water and air and great recreational opportunities. The built environment offers safe and connected transportation options that can be used in most weather conditions. As well as reducing the environmental impacts of growth, complete communities help residents to be more physically active and socially connected.



◀ Mother and children use a pedestrian crosswalk on Leslie Street in the Town of East Gwillimbury.

Creating complete communities requires integrated thinking. Land use needs to align with investments, for example, in active and eco-friendly transportation options. How and where human services are delivered through medical facilities, schools and community centres is another important consideration. Policies in the [Regional Official Plan](#) are designed to encourage coordination and collaboration that will result in complete communities.

A recent example of how transportation can support complete communities is a pilot program that started in 2021 in partnership with the Town of Newmarket and local school boards to encourage students and their parents to walk or cycle to school. The pilot, involving six schools, combines education, outreach and infrastructure and uses wayfinding, including markings on pavement and new curb markings,

to better control traffic in active school transportation areas, along with fun touches like hopscotch grids painted on sidewalks. The hope is that, in addition to giving children more opportunities to be active, the project will help manage traffic congestion and make school zones safer. If successful, the Region hopes to broaden and extend the initiative across its nine local municipalities.

“Complete streets” are an important element of complete communities. In 2017, Ontario adopted a policy requiring that streets be designed for all users. The Region subsequently developed two complementary documents, its [Pedestrian and Cycling Planning & Design](#) and [Designing Great Streets guidelines](#). Together, these shift the focus of road design from planning for vehicle capacity to planning streets everyone can use to better connect to the community. An important element when designing streets is including boulevards that run alongside them to provide safer cycling options.

Policies in the Regional Official Plan will help coordinate more detailed planning by the Region and local municipalities to create complete communities. Partnerships are needed to ensure that other initiatives, including public health programs, the [Region’s Seniors Strategy](#), and investments in green infrastructure, also support this direction.



In this chapter...

- E1 How the proposed network was developed
- E2 Testing options
- E3 Recommended transportation networks for Active Transportation, Rapid Transit and Roads

▲ York Region staff discuss plans at a road construction site.

Mapping the Region's transportation future

E1 How the proposed network was developed

The 2022 Transportation Master Plan responds to the need for a transportation network that offers travellers more options, protects the environment and fits within the Region's budget. It aims to achieve this by:

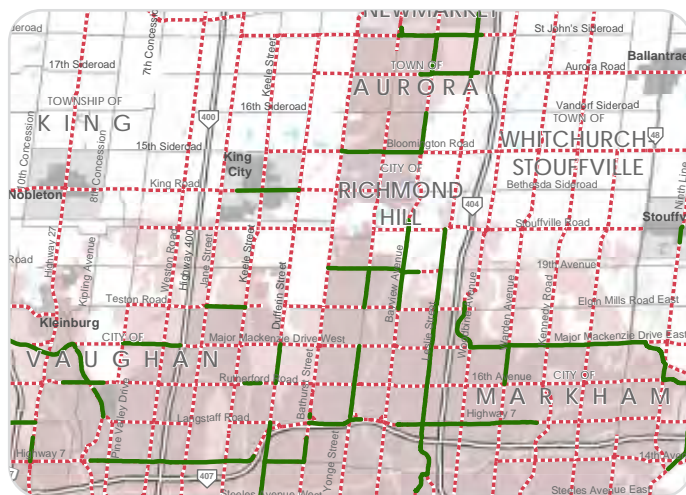
- Supporting a critical shift towards active and eco-friendly travel by making those options readily available to more residents
- Continuing to help make the entire transportation network safer for all users
- Focusing on the transportation needs of all road users, including drivers, passengers, transit riders, pedestrians and cyclists
- Using assets like boulevards along roads and underused public lands for active and eco-friendly travel

This chapter focuses on capital investments aimed at giving communities complete and connected transportation networks for all modes of travel, providing reliable and easy access to destinations and balancing the needs of various communities and travellers. It includes maps showing proposed cycling, rapid transit and road networks to provide a look at how all modes of travel are expected to evolve to support the Region's growth over the next 30 years.

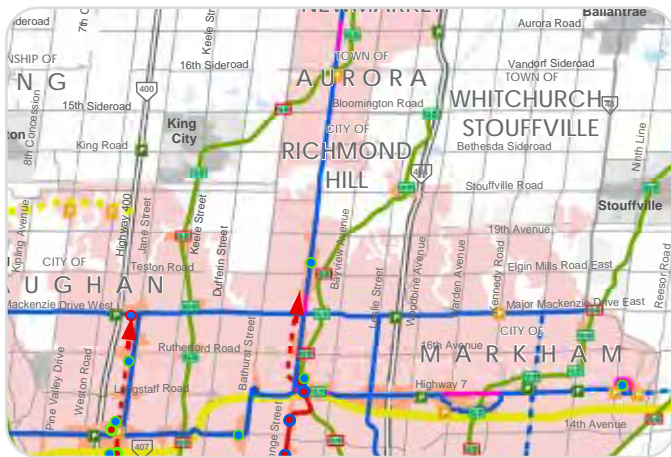
Chapter F (Strategic approach to change) discusses areas of focus that may help develop future transportation programs and initiatives, in line with the plan's purpose statement, principles and objectives.

As a long-term infrastructure plan, the TMP is made up of three main elements:

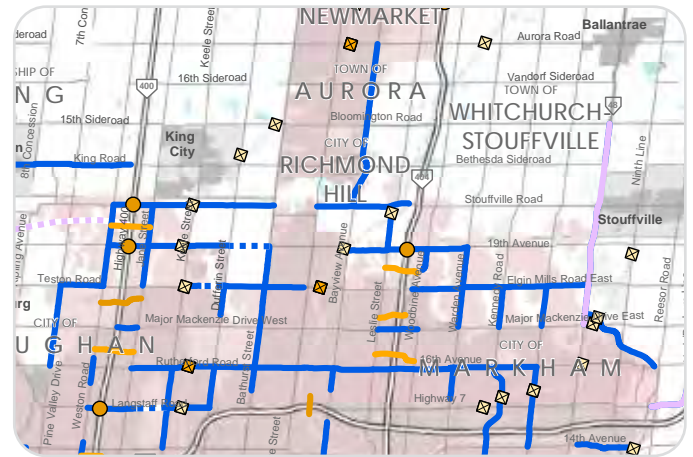
- 1. Active transportation:** Travellers are walking, cycling and using other human-powered options to get to work or school, run errands or simply enjoy being outdoors more often. The plan supports a well-integrated network of bike lanes, trails and multi-use paths to make these options easier and safer for all users. **(Maps 1 and 2 in [Appendix B](#))**



▲ Map 1 above and Map 2 show the proposed cycling and trail networks (see Appendix B for full map area).



▲ Map 3 shows proposed rapid transit network (see Appendix B for full map area).



▲ Map 4 shows proposed road network (see Appendix B for full map area).

2. Rapid transit: Identifying and protecting corridors for rapid transit infrastructure, such as dedicated bus lanes, is critical as the Region grows. Recognizing changes since the release of Metrolinx’s 2041 Regional Transportation Plan in 2018, the 2022 TMP recommends additional rapid transit corridors to address the Region’s growth to 2051 and beyond. In addition, the updated Regional Official Plan identifies new major transit station areas that need to be supported with transportation infrastructure, such as new and improved bus rapid transit corridors, GO Transit rail stations and conventional transit service. **(Map 3 in Appendix B)**

3. Optimized road network: Investments in this TMP will generally target managing traffic flow in the Region’s most congested areas, improving roads in new development areas and enabling better access to freeways, Regional Centres, rapid transit and key links to major employment areas. The proposed road network focuses on what is

needed to make the best use of such existing assets as roads, lanes and intersections, as well as on investing in new projects. This process, also called optimizing the network, includes adjusting signal timing and making road or intersection upgrades to resolve bottlenecks and pinch points wherever possible, instead of undertaking major construction like road widenings. This approach goes hand in hand with other steps taken to manage demand by single-occupant vehicles on the road network by making options like active transportation more readily available. **(Map 4 in Appendix B)**

A shift to active transportation and sustainable transit makes the road network more efficient by managing the number of single-occupant cars it must accommodate as the Region grows. This results in financial benefits by reducing wear and tear on roads and reducing the need for widenings and other costly road projects.



▲ FIGURE 12: York Region's activity-based model estimates all trips over a 24-hour period to help forecast the impacts of growth on the transit and roads networks.

E2 Testing options

Decisions about transportation investments reflect the feedback and factors outlined in the previous chapter, forecasts for growth and employment to 2051, current capacity of the transportation network, how various factors might change and what the impacts will be.

The Region uses an activity-based model to analyze travel demand and forecast the impacts of growth on the network. Reflecting data gathered in the 2016 Transportation Tomorrow Survey and Cordon Count Program, it simulates the daily travel patterns of drivers, carpoolers, pedestrians, cyclists and users of transit, including GO Transit bus and rail, in York Region and the rest of the Greater Golden Horseshoe Area.

The model considers key factors that determine trip-making patterns, such as changes in household makeup over time, availability of cars to household members, how and where employment will grow, how people organize their trips in sequence and the extent to which traffic congestion will cause drivers to shift to other modes of transportation such as transit, walking or cycling.

For the Region, population and employment forecasts included in the updated Regional Official Plan are key considerations and help determine which transportation projects should be invested in and when. Chapters A and B provide more detail.

► Cars and a bus travel along Major Mackenzie Drive in the City of Vaughan.



A 2051 base network model was developed reflecting current Regional and provincial plans, including the 2016 TMP and Ministry of Transportation's [Southern Highways Program](#). Most of the existing 400-series highways serving the Region, including highways 400, 404, 407 and 427, will be extended and / or expanded. Plans for new roads include Highway 413 (GTA West Corridor), which would cross the City of Vaughan from Peel Region to Highway 400, and a bypass that would connect Highway 404 to Highway 400 (commonly referred to as the Bradford Bypass) in the north. The impacts of these projects on the Regional road network were considered during the planning process.

The model then tested how the network would perform given the location of population and employment projected for 2051.

Assumptions could be changed to create a range of scenarios to find a better fit between capacity, costs and transportation options. Six scenarios were tested for the 2022 TMP update. The first three scenarios would involve policy and / or funding from the Region and its partners or would have financial impacts on residents. These scenarios were:

1. Providing more frequent YRT bus service.
2. Eliminating transit fares.
3. Charging for parking in high-demand areas where transit is available as an alternative.

Scenarios 1 to 3 resulted in the reduction of traffic congestion; however, the financial impacts on the Region would vary for each.

The next three scenarios would depend on changes in resident behaviour and would involve little or no policy changes or funding from the Region:

1. Half of trips taken under 5 kilometres would be completed by walking or cycling.
2. 25% of the labour force would continue to work from home and daily shopping trips would fall by 15% due to online shopping.
3. Travellers would avoid morning and evening traffic peaks and spread trips out over the day.

Scenarios 4 to 6 would reduce traffic congestion with minimal impacts on the Region's infrastructure investments. Of the three, scenario 4 — more active transportation like walking or cycling for short trips — is the most feasible, based on current information. The [Transportation Tomorrow Survey](#) data show a growing interest in active transportation among York Region residents, and this trend is expected to continue over the next 30 years.

The Region's roles in helping to make it happen include adding active transportation infrastructure and planning complete communities.

For more information on the development of the recommended transportation networks, please visit york.ca/TMP



▲ Cyclist uses on-street dedicated bike lanes alongside vehicular traffic on Yonge Street in the Town of Newmarket.

E3 Recommended transportation networks for Active Transportation, Rapid Transit and Roads

The transportation improvements recommended in the following sections for active transportation, rapid transit and roads are designed to support regional growth to 2051. These programs are directly linked to the pace of growth and provide the infrastructure needed to support new development. As described in Section G3 (Balancing services with financial needs) and Section G5 (Approach to implementation) with the completion and adoption of the 2022 TMP, 10-year programs for roads and transit capital investments will provide more details. The recommended networks are shown in Maps 1 to 4 in Appendix B.

E3.1 A larger, more integrated active transportation network

A well-planned active transportation network lets people move within and beyond the Region in ways that are convenient and safe for everyone and connects off-road trails to lanes and pathways on or beside roads.

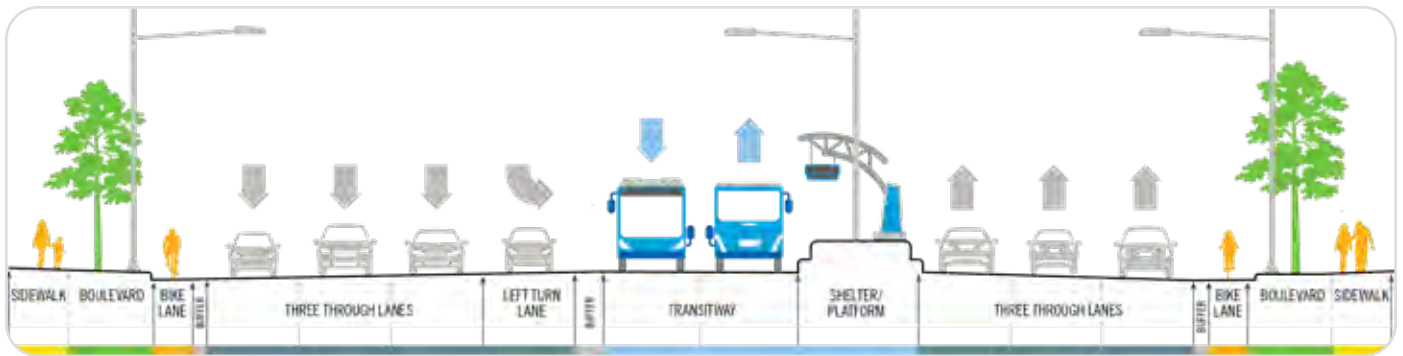
The active transportation network should provide direct connections to workplaces, schools, libraries,

shopping, recreation and other destinations, as well as link to transit for longer trips. Enabling more travellers to reach major transit stations and hubs as well as local transit stops by walking, cycling or micromobility means is an important part of managing traffic congestion in urban areas.

Collaboration is essential in creating and expanding the network. York Region has formed important partnerships with the provincial government, local municipalities, neighbouring municipalities, the Toronto and Region Conservation Authority and the Lake Simcoe Region Conservation Authority, as well as with school boards, advocates and other interested parties.

Updating the active transportation network was guided by the following goals:

- Active transportation users should feel safe throughout the network, including where there is a highway interchange on a Regional road (in partnership with the Province), at intersections and along roads with faster traffic speeds or more traffic
- All Regional roads should accommodate all modes of travel, including walking and cycling, and design should reflect the Region's Pedestrian and Cycling Planning & Design Guidelines



▲ FIGURE 13: Illustration of typical rapid transit corridor cross-section.

- Where possible, cycling lanes should be located off the road rather than on the road next to vehicle traffic
- The network should consider underused or unused land to expand, such as hydro corridors or old rail lines
- Active transportation, such as walking and cycling, should be an option for everyone
- Outreach to encourage the shift to active transportation should target areas where new cycling / walking features are available or planned, as well as to more general audiences

The active transportation networks are shown on two maps — the Regional cycling network and the Regional trail network. While both maps are needed to provide the level of detail required for this plan, the Region views routes on the road network and on trails as one, forming a connected network for commuting and recreational use.

Multi-use paths on Regional roads allow for multiple users, including pedestrians, and the trail network is open to walking, hiking and cycling. Sidewalks, which also form part of the active transportation network, are a local municipal responsibility and as such are not shown on the maps.

Regional road cycling network (Map 1)

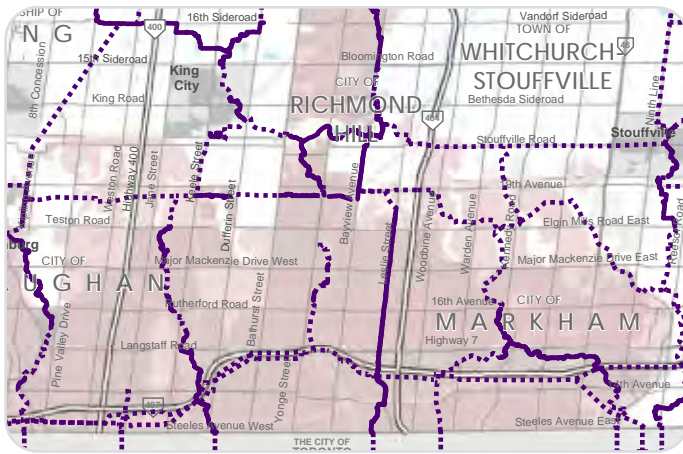
This map shows the existing and proposed Regional road cycling network. Green indicates existing multi-use paths and cycling tracks separated from the roadway and dedicated on-street bike lanes. The dotted red lines show where these new features might be in the future. The road-based cycling network will be expanded by Regional road projects, in partnership with stakeholders and through the review of new development applications. Where a lane or path within the Region will reach a border, the Region will work with neighbouring municipalities to identify logical connections so cyclists and pedestrians can continue their journey safely.

Trail network in York Region (Map 2)

Trails enable cyclists and others to connect to neighbouring municipalities as well as destinations within the Region. Arrows show conceptual connections that can be further explored in collaboration with our neighbouring municipalities. Solid lines show existing trails and dotted lines indicate trails that are under development, planned or being explored in partnership with local municipalities and conservation authorities.

Two trails of significance are:

- The Lake to Lake Cycling Route and Walking Trail, which will provide a 121-kilometre link from Lake Simcoe to Lake Ontario with connections to other major trails when complete. As of 2022, the portion of the route in York Region is more than 85% complete



▲ Map 2 showing proposed trail network (see Appendix B for full map area).

- The future South York Greenway cycling, pedestrian and micromobility corridor, which will parallel Highway 407, providing connections to subway stations, other major mobility hubs and existing and future communities. When complete, it will run more than 50 kilometres from the City of Vaughan to the eastern limits of the City of Markham

These routes will provide a safe and largely separated travel network for potentially thousands of cyclists, pedestrians and micromobility users in the most heavily populated areas of the Region, which will help reduce automobile pressure on major arterial roadways.

Active transportation network improvements, such as the construction of walking, cycling or multi-use paths, will be considered in capital road improvements and included in accordance with the Municipal Class Environmental Assessment as described in Chapter C in partnership with local municipalities. When road projects do not include active transportation, design elements for the road project such as utility locations, placement of street trees, and intersection design should not preclude the future implementation of active transportation.



▲ Bus serving travellers at Vivastation along Yonge Street in the City of Richmond Hill.

E3.2 More rapid transit corridors

The proposed 2051 rapid transit network, shown on Map 3 in Appendix B, identifies and protects rapid transit corridors to support York Region's planned growth needs. Rapid transit infrastructure may include physically separated lanes for the exclusive use of buses or light-rail vehicles. In York Region these are also referred to as "rapidways".

Because the TMP guides long-term capital investment, the proposed rapid transit network focuses on infrastructure needs, including bus rapidways and the Yonge North Subway Extension. However, this does not preclude investment in more frequent transit service on regional roads. The capital needs of other transit services, like changes to the Frequent Transit Network, local bus routes and Mobility On-Request, are adjusted in response to shorter-term demand and reflected in annual service plans, YRT's five-year plans and the 10-year capital plans in the Region's budget. For more information, visit yrt.ca

The proposed rapid transit network is consistent with the 2016 Transportation Master Plan, with some adjustment to reflect budgeting needs. Its foundation is a body of background knowledge, including approved environmental assessments and technical analysis in provincial plans and previous Regional TMPs.

While the rapid transit network plan generally aligns with [Metrolinx's 2041 Regional Transportation Plan](#) that was released in 2018, it also recognizes that long-term planning has since evolved:

- > In the provincial [Greater Golden Horseshoe Transportation Plan](#), the Ministry of Transportation is moving towards including parallel transitway corridors along new or extended 400-series highways
- > The provincial government has also signalled an interest in shifting from the current mode of focusing all rapid transit on Union Station to one that includes a loop to bypass Toronto's downtown core and connects new major transit hubs, including Richmond Hill Centre, with Toronto Pearson International Airport and other important destinations
- > Infrastructure investments also reflect new forecasts for population and employment growth in the updated Regional Official Plan and the Region's designation of new major transit station areas

The rapid transit network includes the following infrastructure elements that could be added to the network by 2051:

Subway

The rapid transit network map reflects the Yonge North Subway Extension to connect the Richmond Hill / Langstaff urban growth centre with the existing TTC subway at Finch Station. The provincial government, through Metrolinx, is leading planning of the project, including route alignment and construction of the line and stations. Both this line and the line currently ending at the Vaughan Metropolitan Centre might be extended further north in the future, subject to further study.



GO Transit

In addition to improvements along the Barrie, Richmond Hill and Stouffville GO Transit lines, the rapid transit network map also includes the Bolton rail corridor in west Vaughan and Havelock rail corridor in east Markham. These were identified in the Metrolinx Regional Transportation Plan as potential projects beyond 2041. The Plan also identifies future GO Rail stations to support the Region's growth to 2051.

- ◀ OPPOSITE PAGE: TTC rider waits for subway train; train travels along tracks; transit rider purchases ticket from fare station.
- ▼ Aerial view of Yonge Street and Gamble Road intersection in the City of Richmond Hill.



York Region Bus Rapid Transit

Building on the success of 34 kilometres of bus rapid transit (or Viva) completed to date, remaining segments totalling more than 100 kilometres are needed to complete the YRT rapid transit network of dedicated bus lanes, including 10 kilometres that are subject to further studies. This would include building out the rapid transit network westward along Highway 7 to connect to Peel Region bus rapid transit, making it easier to get to Toronto Pearson International Airport.

A future study will also consider the extension of the Leslie Street Rapid Transit Corridor via Major Mackenzie Drive and/or Woodbine Avenue to support the employment lands in the Markham Innovation Exchange (MiX) district.

Other rapid transit

Additional rapid transit could include parallel transitways on new and extended 400-series highways, including highways 427 and 407 and the proposed Highway 413 (GTA West Corridor). The proposed transitway on Highway 407 would be another option to link York Region to the Toronto Pearson International Airport. Metrolinx has also

identified 37 kilometres of future planned rapid transit along Steeles Avenue.

Via Rail, in partnership with Transport Canada, is also exploring a new possible high-frequency rail corridor that would run between the cities of Toronto and Ottawa in Ontario. The project may use the existing Canadian Pacific Railway line through Peterborough known as the Havelock corridor.

The Region is also working with the provincial government to explore a potential rapid transit loop to bypass Toronto's downtown core. The [Ministry of Transportation plan for the Greater Golden Horseshoe](#) and future updates to [Metrolinx's Regional Transportation Plan](#) will provide more details.

The proposed number of commuter parking lots to support YRT and / or GO Transit services has been reduced since 2016. This was based on focusing on parking lots that would directly enable a connection from a private vehicle to transit at a significant YRT or GO Transit bus stop, terminal or station.

The proposed rapid transit network was refined through discussions with internal partners, York Region Rapid Transit Corporation and consultation with the public.

E3.3 A more strategic approach to the road network

The development of the 2051 road network included:

- > Building on the extensive work done annually for the 10-year roads and transit capital construction program
- > Recognizing financial constraints and better aligning with the Regional Fiscal Strategy
- > Using data-driven decision making

Decisions about specific projects considered growth-related needs, expected impact, project costs and commitments of partners, such as local municipalities and the Ministry of Transportation. With respect to the ministry, York Region has also identified improvements needed on several roads under provincial jurisdiction, such as portions of highways 48, 9 and 7, and advocates for these to be priorities in updates to the Southern Highways Program.

Evaluating potential Regional road improvements

For improvements to Regional roads, staff reviewed the technical recommendations of the 2016 TMP and examined the results of the proposed demand on the transportation network using the Region's travel demand forecasting model discussed in Section E2.

Projects were then ranked using the Region's priority-setting model, a process endorsed by York Regional Council, that determines the benefit scores of each project, looking at such aspects as how much the road capacity would be increased, what type and intensity of development is expected nearby, whether the road is close to important destinations

or freeways and what uses — such as trucking, transit and car travel — the road will support.

The priority-setting model was valuable for initially ranking projects based on historical and forecasted traffic volumes, then refined qualitatively in consultation with subject-matter experts looking at factors such as making the overall network more efficient by including eco-friendly and active transportation infrastructure.

To align with the principle "Affordable today and tomorrow" and the Regional Fiscal Strategy, projects identified in the 2016 TMP were removed from the recommended network. The recommended 2051 road network is summarized in the following subsections and depicted in Map 4 in Appendix B.

Implementing transportation Improvements through the Rouge Urban National Urban Park

Extending from the shores of Lake Ontario in the City of Toronto and encompassing eastern portions of the City of Markham, the 47-square-kilometre Rouge National Urban Park provides York Region's residents with a rich assembly of natural, cultural and agricultural landscapes, amazing active transportation opportunities and human history dating back over 10,000 years, including some of Canada's oldest known Indigenous sites.

By law, national parks are protected for public understanding, appreciation and enjoyment, while being maintained in an unimpaired state for future generations. This may present York Region with construction and implementation challenges related to building and managing infrastructure within the park boundaries.

The park will require York Region and Parks Canada to navigate the need for new and improved active transportation, transit and road improvements through the park corridor to support continued growth in Canada's largest urban area.

York Region is committed to working with Parks Canada in developing context sensitive and sustainable design solutions while supporting the implementation of the Rouge National Park. The key transportation improvements close to the Rouge National Park include:

- > Extension of Highway 7 bus rapid transit to Durham Region
- > Improving Highway 7 and 14th Avenue, including future grade separations at the Canadian Pacific Havelock corridor, Steeles Avenue, 16th Avenue and Elgin Mills Road
- > Arterial road improvements to support the future Pickering Airport
- > South York Greenway, Cycling, Pedestrian and Micromobility corridor which would connect active transportation users east-west across the Region and into Rouge National Urban Park

- > Future Highway 407 Transitway
- > Via Rail's high-frequency rail project on the Havelock corridor and potential future GO service on the same line
- > Other projects to expand GO Transit train service

Protecting for new Rail to Road Grade Separations

The 2051 road network includes separations between Regional roads and rail lines used by Metrolinx's GO Transit commuter trains, as well as Canadian Pacific Railway and / or Canadian National Railway. These separations, also known as grade separations, support GO Transit's expansion plan for two-way service and for all GO Transit lines to carry more trains.

Recent experience in the Region and elsewhere in the Greater Toronto Area shows that a crossing typically costs more than \$100 million to build. Construction is disruptive for communities and, once built, these crossings become barriers within communities and are very costly to maintain. The significant construction and operating costs might not justify the traffic benefits.

Grade separations included in the Region's 2016 TMP but not yet underway continue to be protected from development in the 2022 TMP. Since projects



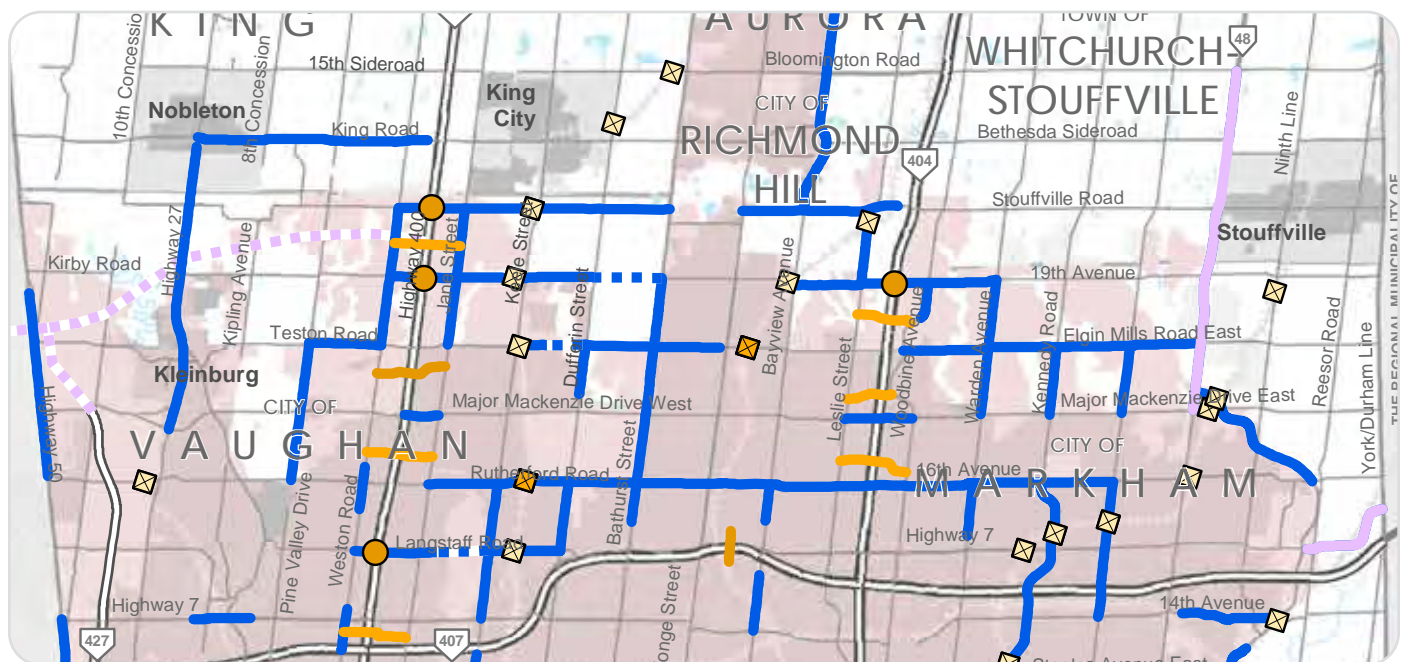
▲ Transit rider makes GO Train station connection to YRT service in the Town of Aurora.

of this nature involve shared jurisdiction, the Region typically works with Metrolinx and other rail authorities to plan for and prioritize them. Negotiation will be needed to determine roles, responsibilities and cost contributions, the last of which will also be subject to assessing priorities in the Region's capital and operating budgets.

Recommended 2051 road network

As **Map 4 in Appendix B** shows, the proposed 2051 road network focuses on:

- Improving roads located near new development areas and in the most congested core urban areas
- Building mid-block crossings (crossings over freeways between interchanges) and completing missing links in mature urban areas to offer more route options
- Constructing of a new section of Teston Road between Keele and Dufferin streets
- Continuing to advocate for interchanges required to support growth and considered by the Ministry of Transportation to be a Regional or local municipal responsibility, including three linking to Highway 404 (at 19th Avenue, St. John's Sideroad and Doane Road) and one to Highway 400 (at King-Vaughan Road), as well as improving the partial interchange at Mulock Drive and Highway 404
- Protecting the areas around planned grade separations between Regional roads and rail lines and completing four projects already underway: on Rutherford Road east of Keele Street and Wellington Street east of Yonge Street on the



▲ Map 4 showing proposed road network (see Appendix B for full map area).

Barrie GO Transit line, Elgin Mills Road east of Yonge Street on the Richmond Hill GO Transit / CN line, and Steeles Avenue east of Kennedy Road on the Stouffville GO Transit line

The Region is undertaking an environmental assessment for a new section of Langstaff Road to cross the Canadian National Railway MacMillan Yard. This is included on a contingency basis as it could proceed only if additional funding were available from third parties.

The 2022 TMP identified the need for one interchange with Highway 400 north of Teston Road, which could be at either King-Vaughan Road or Kirby Road. The preferred option is subject to further study and consultation with local municipalities and the Ministry of Transportation, as either location would be affected by options to connect Highway 400 to Highway 413.

The 2010 Regional Official Plan included a potential westward extension of Donald Cousens Parkway, which currently runs from Fieldside Street (north of Steeles Avenue) to Major Mackenzie Drive. A section of Ninth Line between Steeles Avenue and Fieldside Street is in the Region's program to be widened to four lanes in the near future, completing the southern end of the Donald Cousens Parkway within the Region. The 2016 TMP provided more details of this potential four-lane arterial road that would connect to an interchange at Highway 404 at 19th Avenue. The 2022 TMP proposes that the capacity that would have been provided by the extension be provided by expanding the existing road network around its planned route instead.



▲ Construction of Rutherford GO rail grade separation on Rutherford Road in the City of Vaughan.

E3.4 Transportation needs continue to evolve to support changing land use

The TMP recommends transit, active transportation and road investments to support planned and approved development. However, the Plan recognizes the recommendations discussed in Chapter E (Mapping the Region's transportation future) and in the accompanying maps in Appendix B are only a snapshot in time. This is why the Municipal Class Environmental Assessment process requires master plans be reviewed every five years.

The TMP recognizes the Region, Province (through Minister Zoning Orders) and municipalities (through Secondary Plans), are continuing to review how to implement transit supportive, complete communities and economic sectors. The changing land use in these development areas requires future review of the transportation infrastructure needed to support the development needs. York Region commits to continuing to work with all levels of government to continue to review the rapid transit, active transportation, and road improvements and to meet the evolving needs of these communities.



▲ Early phase of construction of Major Mackenzie Drive West bus terminal near Canada's Wonderland in the City of Vaughan.



In this chapter...

▲ Pedestrians use the crosswalk at Highway 7 and Chalmers Road in the City of Markham.

- F1 New and evolving areas of focus
- F2 Safety for all travellers
- F3 Transportation equity and inclusion
- F4 Reduce car travel
- F5 Fiscal and environmental sustainability
- F6 Reviewing roles and functions in Regional corridors

Strategic approach to change

F1 New and evolving areas of focus

The TMP identified five focus areas, each of which brings together several related priorities:

- > Safety for all travellers
- > Transportation equity and inclusion
- > Reduce car travel, especially during rush hours
- > Fiscal and environmental sustainability
- > Role and function of Regional corridors

The focus areas replace the many transportation policies and actions included in the 2016 TMP, because the Regional Official Plan is the major policy document for managing growth and development. The TMP focuses on setting and maintaining direction for transportation in York Region through initiatives, guidelines and operating procedures that support the Regional Official Plan, as well as the Region's Vision and the Strategic Plan.

F1.2 Focus areas

Each focus area will require further study by Regional staff and potentially additional engagement with agency partners, as discussed in the balance of this chapter. Proposed actions and initiatives will be brought forward to York Regional Council for review and endorsement over its next four-year term.

Safety for all travellers

- > Although safety is always top of mind for transportation projects and initiatives, the need for a Regional plan for traveller safety will be explored

Transportation equity and inclusion

- > Attention will be given to transportation options that are inclusive of all ages, abilities, income levels, genders, races, cultures, etc

Reduce Car Travel, especially during rush hours

- > Options that allow travellers who are able and interested to use methods of travel other than car, especially during the busiest travel times, will be assessed

Fiscal and Environmental Sustainability

- > Ensuring transportation investment decisions are affordable and consider environmental impacts

Review the role and function of Regional Corridors

- > A number of important actions will be explored, including: ownership of cycling facilities; micromobility; the effectiveness of HOV and transit lanes; parking and goods movement

F1.3 Alignment of Focus Areas with Objectives

The TMP's objectives are identified in Section D2 (Foundations of the 2022 Transportation Master Plan).

The following icons represent these objectives and appear in sections F2 to F6 to demonstrate the alignment between each focus area and the objectives. Each focus area aligns with at least three objectives. This will help maximize the value of actions and initiatives related to the focus areas.



Make the best use of infrastructure and services



Enhance partnerships



Encourage all types of travel



Actively engage and share information



Provide a resilient and adaptable transportation network



Align project costs

▲ FIGURE 14: Icons representing objectives of the 2022 TMP.



F2 Safety for all travellers

Safety is a long-standing priority of the Region. As the transportation network evolves and changes, there will be opportunities for the Region and its partners to help make it even safer for all travellers. The 2022 TMP outlines specific investments and commitments to increase safety. In addition, Transportation Operations, Public Works expects to propose a traveller safety strategy to York Regional Council in 2023.

Additional initiatives may include:

- Reviewing posted speed limits to ensure they are consistent with the goals of more active transportation and livable communities
- Using communication campaigns to share information with road users and build awareness of safe behaviour, such as the [“Be Visible. Be Seen.”](#) campaign that provides tips for drivers, pedestrians and cyclists
- Implementing engineering measures and initiatives to improve safety for all travellers
- Using safety-oriented planning and design and providing safety enhancements for pedestrians and cyclists by using the Region’s Pedestrian and Cycling Planning & Design Guidelines, including:
 - Protected bike lanes, also called cycle tracks, with physical barriers to separate cyclists from both cars and sidewalks
 - Permanent two-stage left-turn queue bike boxes in boulevards at several intersections on Highway 7 to allow cyclists to complete a left turn across multiple lanes of traffic safely



▲ TOP: Two students at a sidewalk decal that is part of the Be Visible. Be Seen. safety campaign. BOTTOM: Dedicated off-street bike lanes and sidewalks along Highway 7 in the City of Markham.

- Pedestrian crossings, like the pedestrian bridge over the Holland River and GO Barrie rail corridor, to eliminate the need for pedestrians and cyclists to cross at street level



F3 Transportation equity and inclusion

The Region designs transportation options and assets to make it easier for people of all ages, income levels, abilities and identities to use services. This aligns with [York Region's Inclusion Charter](#), which has the goal of making all people feel they belong and have access to the same opportunities and moving towards recognizing mobility as a right. It is important to note the distinction between what is meant by transportation equity versus transportation equality. Equality ensures each individual or group of people is given the same resources or opportunities, whereas equity recognizes each person has different circumstances and ensures everyone is provided with what they need to reach an equal outcome.

A central goal of transportation is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved, or which current trends in mobility could disadvantage¹. By recognizing the inequities present within our transportation system, the Region will work to apply an equity lens to future projects to ensure transportation networks are inclusive and recognize diversity of personal abilities, ages, genders, incomes, races and cultures. This focus area will explore whether there are opportunities for all travellers to access transportation in York Region and identify whether new policies or initiatives are needed.

▲ Transportation options aim to serve York Region's diverse population and be inclusive.

¹ World Road Association, "Call for Proposals: Social equity and social accessibility of transport systems", March 2022.



▲ Mobility on-request client exits vehicle; mother with stroller and child exiting a bus.

Current initiatives like the [MyRide Travel Training Program](#) are designed to help make customers, including seniors, newcomers to the Region and people with disabilities, more comfortable by providing additional knowledge and skills needed to help them use YRT independently.

YRT offers fare discounts for senior citizens, children and youth, and children under five years of age ride for free. The Region is also piloting a [Transit Assistance Program](#) to make transit more affordable for eligible adults.

Other initiatives to support greater transportation equity and inclusion include:

- > Building on York Region's understanding and definition of transportation equity and inclusion
- > Expanding Mobility On-Request to provide transit services to more rural communities and new riders in areas without access to large-scale transportation systems or mobility hubs

- > Accepting more payment methods so it is easier to pay fares and use the system
- > Expanding transportation options available to residents and commuters
- > Making transit more convenient by offering better fare and service integration with neighbouring systems and aligning transit options with traveller needs
- > Ensuring intersections comply with provincial accessibility requirements
- > Communicating in more ways to ensure messages reach as many people as possible

- ▼ York Region Transit bus travels in dedicated bus lane along Highway 7 at the Town Centre vivastation in the City of Markham.



F4 Reduce car travel, especially during rush hours

The road network, air quality and the environment would benefit from having fewer cars on the road, especially during rush hours, as the population and economic activity increase.

There are many ways to build on the growing interest in walking, cycling, transit, carpooling and other eco-friendlier options, including non-travel

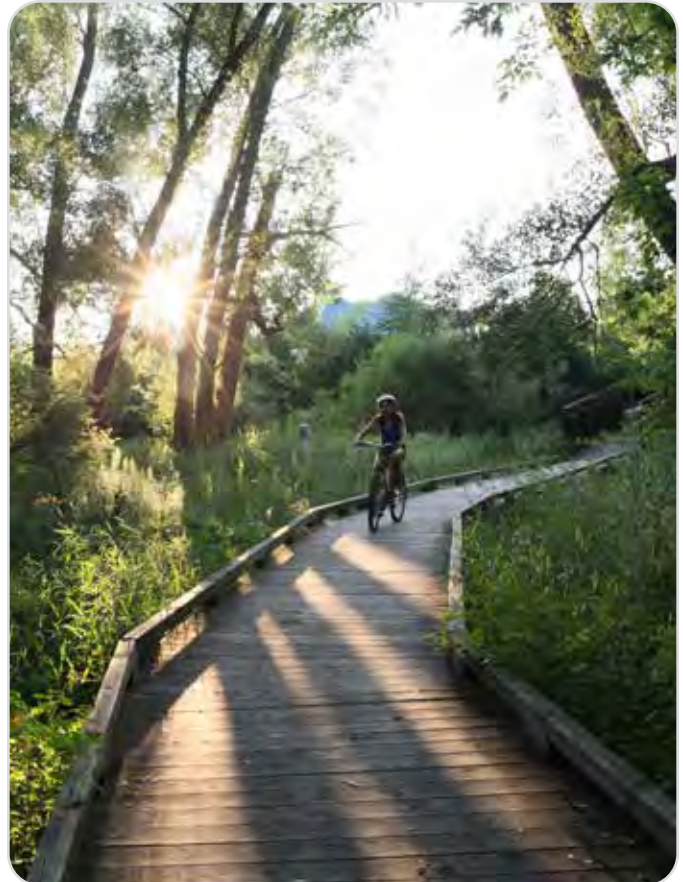
alternatives such as working from home. For example, a developer will work with York Region and local municipalities to provide transit incentives and sustainable transportation information to residents and businesses to help reduce the dependence on automobiles.

The 2022 TMP continues York Region's commitment to managing traffic congestion, including looking at new ideas and approaches.

▼ TOP: Cyclist travels along multi-use path between Woodland Hills Boulevard and Cliff Trail in the Town of Aurora. BOTTOM: Cyclists and pedestrian travel along multi-use path in the City of Markham.

A key element will be encouraging a shift to more active and eco-friendly options. Examples of how to achieve this include:

- Supporting transit ridership recovery from the COVID-19 pandemic with marketing efforts, enhanced cleaning programs and actions to address overcrowding in high ridership areas
- Adding more active transportation infrastructure (such as cycle tracks and multi-use paths)
- Advancing the Lake to Lake Cycling Route and Walking Trail and South York Greenway project and building stronger links throughout the trails network
- Better understanding the opportunities for transportation over short distances via eco-friendly, single-person vehicles such as e-scooters and e-bikes and how to accommodate their use in the transportation network
- Working with the development community to ensure new communities are designed to be walkable and provide eco-friendly options through urban design elements such as window streets to avoid reverse lot frontage and sound reduction walls, pedestrian connections between streets and to trail systems and lower parking space requirements
- Creating a comprehensive transportation demand management strategy, building on such initiatives as Smart Commute, including its website and app, carpooling, MyTrip and Active School Travel pilot programs, encouragement of walking, cycling and other eco-friendly options for the first / last kilometre of longer trips and providing access to major mobility hubs by transit or active transportation





F5 Fiscal and environmental sustainability

The 2022 TMP looks at sustainability from both an environmental and financial lens. For environmental sustainability, York Region considers natural heritage features as well as agricultural and rural lands to avoid any negative impacts of capital projects where possible and applies context-sensitive mitigation solutions when necessary. For example, preserving the 70,000 trees planted on Regional roads and rights-of-way is considered as part of the road project planning process and when trees must be removed, they are replaced.

Section B2.3 discusses York Region's commitment to meet net-zero targets by moving to full electrification of the transit and corporate vehicle fleets.

Financial sustainability ensures that York Region can keep the cost of growth affordable while maintaining its existing infrastructure in a state of good repair. It means preserving fiscal flexibility in the face of changing needs and being able to effectively respond to unforeseeable events, such as the COVID-19 pandemic. In updating the Regional Official Plan, the Region also strengthened policies on coordinating the timing of projects with growth to improve efficiency and phasing the construction needed for future communities to ensure costs stay within the Region's means. Policies throughout the Regional Official Plan were updated to highlight the importance of integrating land use, infrastructure and financial planning. More information on how York Region proposes to implement the TMP can be found in sections G3 and G4.



▲ One of 12 electric buses that YRT has piloted along Davis Drive in the Town of Newmarket since the launch in February 2020.

There are additional ways to lessen environmental impacts of the transportation network and support fiscal sustainability. Examples of such initiatives include:

- > Improving the way priorities for capital projects are set by updating the definition of a project's benefits, building in financial constraints, looking at benefit / cost ratios and assessing the ability to lessen environmental impacts, for example by reducing GHG emissions and waste by re-using construction materials (where appropriate)
- > Managing assets to minimize costs and environmental impacts over their service lives
- > Coordinating the Region's transportation networks with those of local and adjacent municipalities to minimize infrastructure needs and enhance the natural environment
- > Advocating for provincial and federal governments to support programs to reduce GHG emissions from transportation and their community impacts
- > Identifying partnership and pilot programs to help support electric vehicle technology as a method to reduce the community impacts of GHG emissions



▲ TOP: Providing meadows along Regional boulevards helps protect natural heritage features. BOTTOM: Maintaining Regional vehicles promotes fiscal and environmental sustainability.



F6 Reviewing roles and functions in Regional corridors

As the transportation network evolves, York Region needs to consider issues around ownership, new technologies for micromobility and measures to manage demand on the system. This focus area looks at the complex relationship between Regional roads and how the corridors, the public space between private development on opposite sides of the road, support our communities, placemaking and how travellers use and envision the corridor space.

The Master Plan has identified the following five sub-focus areas to outline the key priorities around corridors. The term “corridor” refers to the travel lanes for vehicles, active transportation corridors, boulevards and streetscaping features or ditches and above and below ground utilities. The corridor extends from the property line on one side of the roadway to the property line on the opposite side. In Ontario, the [Municipal Act](#) prescribes that York Region is responsible for the ownership and

maintenance of some elements in the corridor and the nine local municipalities are responsible for other elements of the corridor, including.

- > Ownership and use of boulevard
- > Micromobility
- > HOV lanes / transit lanes
- > Parking
- > Movement of goods using large trucks

Each of these focus areas is further defined below.

F6.1 Ownership and use of boulevard

Elements in boulevards (the strips of land located between the road curb and private property) include cycling paths, sidewalks, streetscaping and lighting. The ***Municipal Act*** does not explicitly define the respective responsibilities of York Region and its local municipalities for all boulevard elements. For example, along a Regional road, York Region is responsible for drainage such as ditches or storm sewers, street trees, street lighting at intersections and maintaining the grass and Regionally owned streetscaping, whereas the local municipality is responsible for the sidewalks and the street lighting between intersections.

◀ OPPOSITE PAGE: Vehicles travel along Major Mackenzie Drive West in the City of Vaughan.

However, responsibilities for other features, including multi-use and cycling paths, are not defined. This creates uncertainty about ownership and maintenance, especially as the Region is moving to shift cycling facilities from the road into the boulevard for greater safety.

Examples of initiatives York Region will explore include:

- Working with its partners to clearly define boulevard roles and responsibilities, especially where the goal is providing safer and more comfortable options for active and eco-friendly transportation, reducing reliance on single-occupancy vehicles and making the road network more efficient
- Considering what needs to be included on boulevards and what could go onto the road to make more space available for trees and other features as many utilities are contained above and below the ground

F6.2 Micromobility

New micromobility choices, such as e-bikes and e-scooters, are gaining in popularity among York Region's residents. As noted in Section D3, they offer convenience as well as benefits on both the environmental and the traffic congestion fronts. Users can cover longer distances compared to walking or cycling, the devices take up less space on the road than a car and it is easier to connect to mobility hubs or key destinations as parking is less of a concern.

Successful integration of these devices into Regional and local networks will require collaboration and communication. Particular attention must be given to



▲ Travellers using e-scooters and ebikes along separated sidewalks and bike lanes.

how they would be safely integrated into sidewalks or trail systems that see high volumes of pedestrians.

Going forward:

- The Region and its partners will work to define pedestrian, cyclist and micromobility infrastructure to support both safety for all travellers and the shift away from single-occupant car trips
- Special consideration will need to be given to issues such as municipal and / or third-party rental e-bikes and e-scooters as they are introduced into the marketplace, pick-up / drop-off locations, winter maintenance, charging facilities, age restrictions, speed limits in some settings, enforcement and legal / risk issues



▲ Travellers carpool and vehicles park on Main Street/Highway 48 in the City of Markham.

F6.3 HOV lanes / transit lanes

High-occupancy vehicle (HOV) lanes are reserved for public transit, emergency vehicles, taxis and private vehicles carrying more than one person. Their main purpose on Regional roads is to increase the total number of people moving through the corridor.

A Regional standard for six-lane roads requires the inclusion of two all-purpose travel lanes in each direction, an HOV lane and a dedicated 1.5-metre cycling lane, at a minimum.

The Regional Official Plan includes a policy to “require transit or high-occupancy vehicle lanes and cycling facilities within the rights-of-way of existing and future six-lane Regional roads based on established thresholds and criteria.” Consistent with that policy, this focus area will explore opportunities to redefine how HOV lanes are proposed and implemented across the Region’s existing four- and six-lane and future six-lane roads.

Potential work in this area could include:

- > Carpooling lane incentives
- > Building additional bus-only lanes on major Regional corridors
- > Reviewing Regional policy on six-lane roads

F6.4 Parking

In York Region, local municipalities are largely responsible for managing on-street parking through official and secondary plans, zoning of new developments and parking bylaws. The Region, however, has two closely related functions:

- > Its [Official Plan](#) directs growth largely to Regional Centres and Corridors
- > It is working on several fronts to make active and eco-friendly travel options more attractive

These roles are linked. Effective parking policies and programs can help achieve transportation goals like encouraging people to walk, cycle and use micromobility, especially in high-density areas.

Parking on a Regional road is considered only when all the following criteria are met:

- > It would be located within or along the Region’s designated Centres and Corridors or in a Major Transit Station Area
- > It would be part of an overall parking strategy for those locations, not a stand-alone provision
- > It would be safe and not impact pedestrian and cycling facilities, sightlines, streetscaping, access, intersection operations or the road’s integrity

Additional work may include:

- Looking at a broad-based policy and standards around parking on Regional roads to support the goals of the 2022 TMP
- Charging for on-street parking in some areas

F6.5 Movement of goods using large trucks

Trucks of all sizes are allowed on all Regional roads, supporting the economy as well as moving people. The 2014 Ministry of Transportation of Ontario Commercial Vehicle Survey (CVS) found that 21% of weekly truck trips in Ontario originated from, were going to, or crossed through York Region. An update to the survey started in 2019, but was postponed due to the COVID-19 pandemic. Approximately \$3.8 billion worth of goods are moved in the Region weekly.

Truck traffic in the City of Vaughan accounts for more than half of all truck travel to and from the Region. This is because two major rail freight hubs, Canadian National Railway MacMillan Yard and Canadian Pacific Railway Vaughan Intermodal Terminal and several major distribution centres are located in the City of Vaughan. Truck volumes are also higher around key employment areas along provincial highways, in the cities of Markham and Richmond Hill as well as Vaughan.

The Region has been working to improve goods movement, manage congestion and reduce conflicts between road users through:

- **Greater efficiency.** The Regional Official Plan recommends the Region work with the provincial government, local municipalities and nearby jurisdictions on an efficient, multimodal goods movement network that uses rail corridors, provincial highways and Regional roads to meet current and future needs. This is reflected in such projects as the proposed widening of Langstaff Road to six lanes between Weston Road and Dufferin Street and potential crossing of the MacMillan Yard (contingent on third-party funding)
- **Operational practices.** Section D3.3 discusses the Region's Designing Great Streets Guidelines focused on road design for all users. One concern is ensuring the turn radius, also known as curb return radius, at intersections used by trucks is sized right to minimize conflicts with opposing traffic and pedestrians



▲ A transport truck turns onto Jane Street from Rutherford Road in the City of Vaughan.

York Region is collaborating with Peel Region and several academic partners on the [Smart Freight Centre](#), a centre of excellence for goods movement. The goal of the Smart Freight Centre is to provide innovative evidence-based research, decision support, advocacy, training, and monitoring to coordinate transportation infrastructure, land development, regulation, technology tools, and resources that improve goods movement activities.

Through this partnership, York Region will apply the learnings from projects such as Peel Region's Off-Peak Delivery Pilot Project, in delivering similar solutions. The pilot project, completed in partnership with major retailers, found that making deliveries outside of peak traffic periods can help reduce congestion.



▲ Transport trucks stop at a red traffic light on Highway 7 at Creditstone Road in the City of Vaughan.



In this chapter...

- G1 Cost of the Plan
- G2 Funding the Plan
- G3 Balancing services with financial needs
- G4 How asset management supports growth
- G5 Approach to implementation
- G6 Total costs of the transportation network
- G7 Measuring and monitoring performance
- G8 Updating the Transportation Master Plan

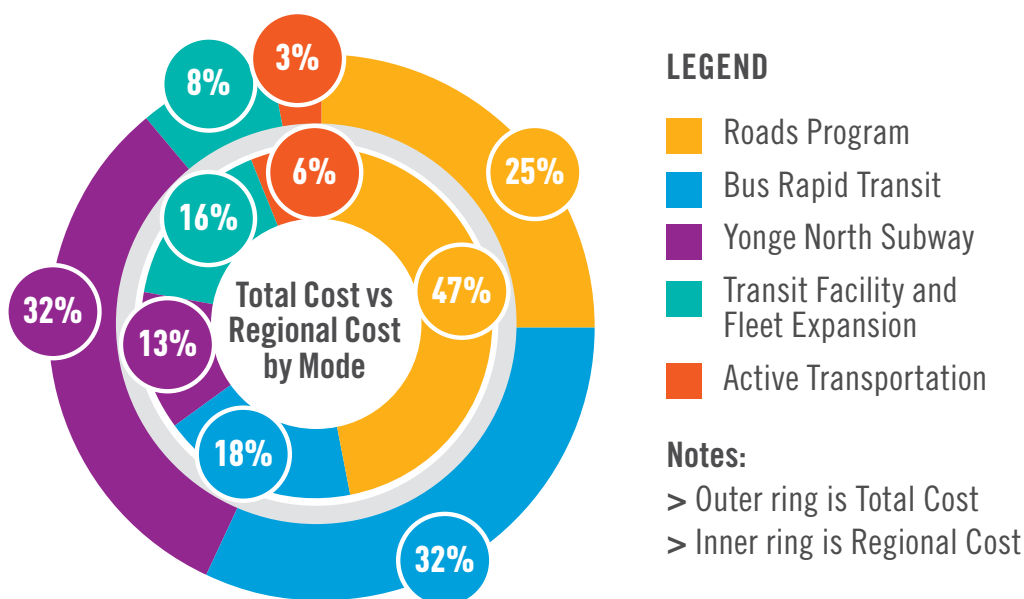
▲ Road surface improvements along Bathurst Steet just north of Bloomington Road in the Town of Aurora.

From plan to action

G1 Cost of the Plan

This TMP identifies the need for both specific and groups of projects to meet the needs of growth and provides an estimate of total costs of these projects. The cost of a project may be shared in part or fully by local municipalities, rail authorities and senior levels of government. The following section discusses funding sources, including contributions from other levels of government. The estimated costs of the networks and related programs recommended in this update

are \$12.4 billion for transit, \$496 million for active transportation and \$4.2 billion for roads. Additional cost would be required for annual rehabilitation, maintenance and end-of-life replacement of existing infrastructure such as reconstructing a road, replacing a bridge or a transit vehicle. It is anticipated that where technology is available the Region's existing fleet of fossil fueled vehicles will be replaced with a new hybrid or electric vehicle. This cost would be included in the Region's asset management program.



▲ FIGURE 15: TMP projects are delivered in partnership with the Province of Ontario and local municipalities. The two graphs show the percentage of capital cost between transit, active transportation and roads and York Region's share of those costs.

Estimated Plan Capital Cost (Millions \$)*		
Component	Total Cost	Regional Cost
Transit		
Bus Rapid Transit corridors	5,445	1,565
Yonge North Subway Extension	5,600	1,120
Transit facilities / fleet (expansion)	1,385	1,385
Subtotal	12,429	4,069
Active Transportation		
Subtotal	496	496
Roads		
Road improvements	2,267	2,200
New road links	190	190
Mid-block crossings	289	98
Interchanges	121	121
Grade separations	76	71
Minor and miscellaneous capital	839	838
Transportation Demand Management	72	72
Programs and Growth Management Studies	29	29
Fleet and maintenance facilities	353	353
Subtotal	4,237	3,971
Total Cost	17,162	8,536

* Totals may not add up due to rounding

By 2051, York Region's \$8.5 billion contribution to the \$17.2 billion investment in the active transportation, transit and road networks will:

- > Expand the active transportation system including completion of The Lake to Lake Cycling Route and Walking Trail, South York Greenway micromobility corridor and constructing missing links in the network
- > Extend the Yonge North Subway to Highway 7
- > Expand the Regional Bus Rapid Transit Network
- > Connect communities across barriers such as 400 series highways by constructing mid-block crossings or constructing missing links in the road network
- > Implement road improvements considering the needs of the local community
- > Prioritize road improvements in congested areas and growing communities
- > Contribute to provincial investments such as rail-to-road grade separations and new and improved freeway interchanges

York Region's \$8.5 billion investment in transportation could increase over the next 30 years depending on the number of future highway interchanges and road-rail grade separations initiated by the Province of Ontario or others.

G2 Funding the Plan

Growth-related infrastructure is mainly funded by development charges (DC). These fees are collected from developers to build water, wastewater and transportation-related infrastructure to support new residential and non-residential development.

The [Development Charges Act, 1997](#) provides the legislative framework for development charges. As required by the Act, municipalities set out development charges in a bylaw that is updated at least every five years.

The [2022 Development Charges Bylaw and Background Study](#) are aligned with the TMP, and reflects \$11.2 billion in growth-related transportation projects, of which \$5.2 billion is eligible for cost recovery within the 2041 planning horizon of the 2022 bylaw, and \$0.9 billion is eligible for cost recovery under future DC bylaws and the remainder will be funded through non-DC sources such as tax levies, grants and subsidies. The 2022 Development Charges Bylaw helps fund the Region's share of the Yonge North Subway Extension, as well as Bus Rapid Transit investments, and investments in roads.

While the 2022 Development Charges Bylaw provides a funding source for growth-related projects, the annual budget provides the spending authority for projects through the annual budget.

G3 Balancing services with financial needs

York Region plans according to funds available, as it must remain financially self-sufficient while providing services to more people and jobs in the Region, especially in growing areas.

The Region's financial plan, also known as the Regional Fiscal Strategy, is designed to strike the right balance between the needs of the community and funds available by carefully managing when infrastructure is built, saving funds in reserves for future needs and limiting the borrowing of funds that come with additional expenses like interest, which is repaid from development charges when received.

Through the [Municipal Comprehensive Review](#) and updates to the master plans, two key goals were identified. The first is to direct growth to local municipalities that have existing infrastructure like roads, transit and sidewalks that can be further built upon to support an increasing population rather than to local municipalities where new infrastructure would need to be constructed. The second is to time new construction projects with actual growth rather than with forecasts. Based on the fiscal strategy, these goals are in line with principles endorsed by York Regional Council in June 2019 and are key to creating the fiscal room needed for the next generation of infrastructure projects, including the Region's share of the Yonge North Subway Extension.

In updating the Regional Official Plan, the Region also strengthened policies on coordinating the timing of projects with growth to improve efficiency and phasing the construction needed for future communities to ensure costs stay within the Region's means.

Policies throughout the Regional Official Plan were updated to highlight the importance of integrated land use, infrastructure and financial planning. The TMP follows this direction by addressing transportation needs while being responsible to both current and future residents:

- > Making cost-effective investments while major road and rapid transit projects will be needed over the next 30 years, the plan also includes less costly ways of carrying more travellers, such as multi-use paths and bike lanes
- > Watching for trends that support new, more eco-friendly directions. For example, the use of e-bikes and e-scooters, which help manage traffic congestion and reduce GHG emissions, is on the rise, and the Region will encourage these and similar trends, while also adding more electric vehicles to the YRT and corporate fleets
- > Monitoring road and traffic conditions, along with the pace and location of growth, to adjust 10-year capital plans as needed

These activities will help provide the right service at the right time. To further ensure costs are managed responsibly, capital and operating plans will help to minimize the total costs of the transportation

network now and as it grows to meet the needs of higher population and employment as well as the longer-term lifecycle cost of the regional infrastructure. Sections G4 and G5 discuss this and other implementation challenges in more detail.

G4 How asset management supports growth

York Region manages existing and invests in new assets, including roads, transit vehicles and more, that serve our nine local municipalities. Proper management and investment of these assets, through growth and renewal, serves and supports strong, caring and safe communities. York Region identifies and invests in new assets, such as constructing new roads or purchasing new buses, through its Growth Portfolio, which falls under the annual capital program. Expanding existing assets, such as widening roads or replacing small buses with larger buses, helps to expand services to meet the needs of a growing community. Before constructing new assets, a comprehensive review is done to determine if the Region can afford to own, operate and maintain it. For example, a new or widened road requires more funds to snow plow, paint lines and keep in good condition. Tax levy budgets are adjusted to reflect the cost of operating and maintaining new assets.

When a new asset is built through the annual capital program, York Region takes ownership of the asset and it is added to the renewal portfolio, which is focused on investing in existing assets. Much like buying a new car, when York Region purchases a new bus, ongoing investments include oil changes, tires and engine

Project Phases



Average span of time needed to complete a major road widening

▲ FIGURE 16: Time line for roads and transit capital investments.

tune ups to ensure it continues to operate efficiently. Roads also require maintenance including the upkeep of the road surface and prevention of cracks in the pavement. This proactive care prevents more costly repairs and extend the lifespan of the road to support residents and businesses now and in the future. Short-, medium- and long-term investment plans help maximize the return on investment from the tax levy and development charge contributions and offers the best service delivery to communities for dollars spent.

Because the Region's asset portfolio grows every year, asset management is of the utmost importance.

Each year, growth and renewal capital projects support the nine local municipalities and optimize investment across the entire Region. While communities across the Region are forecast to see differing rates of growth, all benefit from the renewal program, which aims to ensure assets provide optimal service over time.

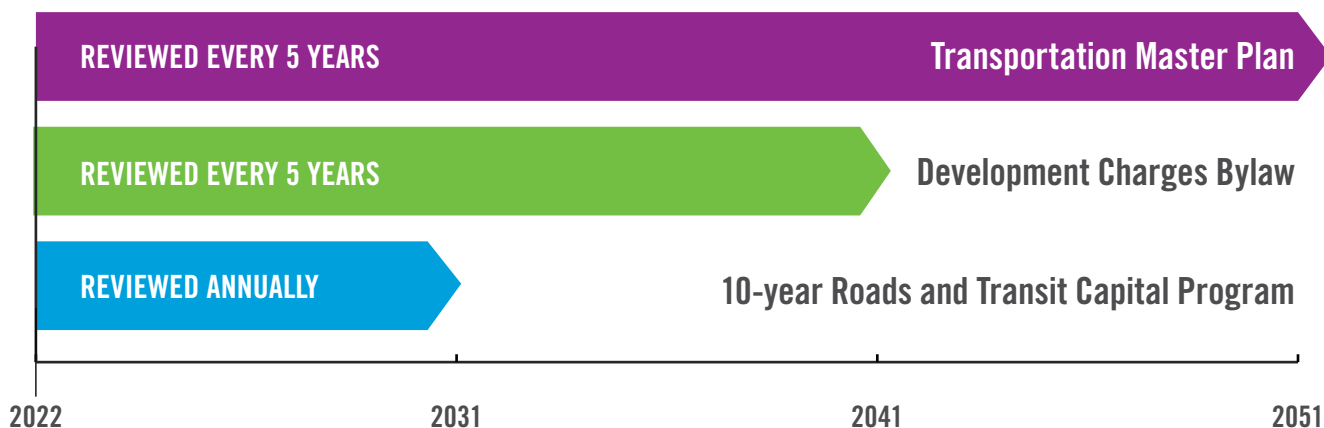
G5 Approach to implementation

With the adoption of the TMP, 10-year programs for roads, active transportation and transit capital investments provide more details about implementation. These programs are directly linked to the pace of growth by providing the infrastructure needed to support new development.

The programs also consider the time to complete construction. On average, it takes eight to ten years to complete a major road improvement, like adding regular traffic lanes or dedicated bus lanes to an existing road. Planning, environmental assessments, design and construction are all part of the process and take time to complete. For major projects like extending the subway line, which involves multiple levels of government, getting funding commitments and coordinating plans can add several more years.

The road, active transportation and transit capital programs feed into the 10-year capital plan in York Region's annual budget. Through the budget process, the 10-year capital plan may be adjusted as needed to reflect available funds, regulatory or construction delays, growth that is different from the forecasts and other factors.

Long Term Planning, Funding and Delivery of Capital Projects



▲ FIGURE 17: Time line for long-term planning, funding and delivery of capital projects.

As noted in Section E3.4, changes made by third parties, especially the provincial government, can impact planning. For example, a Minister's Zoning Order to change the allowed use of a specific piece of land from employment to residential would change travel patterns and needs of the area. In addition, reversing previous direction on expanding provincial highways extensions, like those discussed in Section E2, could also affect the Region's plans for how land is used and serviced.

These unknown or unplanned changes could require York Region to fund and deliver additional capital projects and related long-term operating costs. This would affect the Region's fiscal capacity and might result in other planned projects being deferred.

Although the TMP defines the need for improvements to a corridor it does not predetermine the recommended solution. For each project, York Region is committed to re-evaluating Phase 1 (Problem or Opportunity) and Phase 2 (Alternative Solutions) of the MCEA as described in Section C1 of this plan.

This will include working directly with local stakeholders on evaluating the transportation solution in their neighbourhood to ensure interested individuals have an opportunity to comment on projects that may affect them. This process also includes considerations and decisions about design. To reduce the total cost of a project and disruption to the public, the Region also aims to combine growth with rehabilitation projects and to coordinate all work within a transportation corridor.



▲ Aerial view of Highway 7 in the City of Markham.

G6 Total costs of the transportation network

York Region owns \$4.1 billion in road assets, such as pavement, bridges and traffic signals, and \$2.0 billion in transit assets, including bus garages, buses, transit stops and terminals.

Each year, over \$260 million is needed to operate and maintain the Regional road network and an additional \$250 million is needed for the transit network.

Examples of day-to-day operations include clearing snow, cutting grass along boulevards, filling potholes, providing transit services and maintaining buses.

As described in Section G4, the Region's existing road, active transportation and transit infrastructure have annual maintenance and rehabilitation and ultimately need to be replaced. Together, rehabilitation and replacement are often referred to as renewal costs. Each year, on average, the Region spends \$150 million on renewing transportation assets.

These figures demonstrate the importance of planning for the ongoing costs of new infrastructure. As soon as an asset goes into service, the Region draws up a plan to operate and maintain it and plans for its eventual replacement.

The road projects in the TMP will increase the department's operating and asset management budget by roughly \$6 million a year from 2022 to 2031, rising to \$13.6 million a year from 2032 to 2041 and \$21.2 million a year for the following decade. This reflects higher operations, maintenance, preservation and asset management costs over the current operating outlook and is in addition to up-front construction costs. The incremental cost of the 2051 rapid transit network is \$48.1 million a year.

The incremental cost figures include funds that would need to be set aside in reserves for asset management. The Region follows two provincial regulations on maintaining assets in a state of good repair. One, under the Infrastructure for [Jobs and Prosperity Act](#), guides how municipalities plan the management of all major assets. The other, under the *Municipal Act*, sets out maintenance standards for municipal highways. Asset management is important for maintaining service quality and keeping costs in line. It helps the Region ensure safe and reliable road and transit systems, extends the life of assets and reduces total costs over their life cycle.



▲ Resurfacing of Mulock Drive, East of Yonge Street in the Town of Newmarket.

This also extends the life of a road before full replacement is needed.

For instance, every dollar spent on pavement preservation, including resurfacing, results in spending five to ten times less in future rehabilitation or reconstruction costs. This also helps maintain the capacity of the road by reducing the instances of potholes, the need for preventative construction and major rehabilitation, and extends the life of the road before replacement is needed. Another important consideration is the impact of invasive plant species in the Region. Invasive plants such as Japanese knotweed are known to grow through materials such as asphalt and concrete, while Phragmites (European common reed) fill ditches and plug culverts, resulting in drainage issues and flooding. Although the impacts of invasive species can be mitigated, the cumulative impact of climate change on the expansion of invasive species in range and growth rates will continue to pose a threat to the Region's infrastructure.

As part of the Region's corporate asset management initiative, the Transportation Operations, Public Works Department maintains a 100-year forecast of the maintenance, rehabilitation and replacement needs of roads, bridges and transit assets. This helps determine how many dollars of the tax levy need to be placed in the asset management reserve.

G7 Measuring and monitoring performance

It is important for York Regional Council, stakeholders, partners and the public to see progress being made towards the TMP's vision, goals and objectives.

Progress will be monitored through an annual TMP status update and a lengthier progress report every five years that help determine when the next update is needed.

The annual update will show the status of all focus area initiatives and actions in the TMP. It will keep York Regional Council and the public informed about the work the Region has done and plans to do. The status update will also be used by staff in annual work planning and budgeting.



Developing progress indicators and a framework for reporting will be key initiatives of the first status update as measurement is key to evaluating effectiveness. The indicators are intended to be:

- > **Meaningful:** Reflect the community priorities as set out in the TMP purpose statement and objectives
- > **Timely:** Prioritize what can be delivered in the short term while keeping line of sight to the medium- and longer-term priorities based on the evolving environment for transportation
- > **Achievable:** Ensure objectives are within the Region's ability to deliver, control or influence
- > **Measurable:** Be based on readily available information and data

G8 Updating the Transportation Master Plan

The TMP is reviewed every five years. Two other factors influence reviews:

- > **TMP Progress Report:** The annual progress report described in the previous section will be used to gauge how the plan is performing and how extensive of a review or more comprehensive update to the TMP is needed
- > **York Region Official Plan Review:** Provincial legislation requires a review and update of the Regional Official Plan at least every ten years. Major infrastructure plans, including the TMP, are typically updated at the same time to inform the Official Plan update



▲ Aerial view of Yonge Street and Eagle Street intersection in the Town of Newmarket.

Appendix A
Glossary

Boulevards are the strips of land located between the road curb and private property that can include cycling paths, sidewalks, streetscaping and lighting.

Centres and Corridors, as defined in the Regional Official Plan, are the primary locations for the most intensive and greatest mix of development (high, medium and low density residential, commercial, employment, etc) within the Region. Regional Centres expand on the urban growth centre and anchor hub concepts, as detailed in the provincial, A Place to Grow: Growth Plan for the Greater Golden Horseshoe and the Metrolinx Regional Transportation Plan: The Big Move.

Commuter parking lot refers to a parking facility which allows a commuter to park their own personal vehicle and then transfer to / from a different mode of travel (e.g., public transit) to complete their commute.

Cycling facility refers to pieces of infrastructure that are shared or specifically designated for use by bicycles or other designated forms of transportation. Examples can include (but are not limited to) bike lanes or multi-use paths.

Dedicated / separated facilities refers to bike lanes or shared paths designed for use by cyclists and are separated from motor vehicles by signage, markings and / or barriers.

Facilities refers to a place, amenity or piece of equipment provided for a particular purpose, e.g., bike lanes, bus rapid transit, road widenings, streetscaping, etc.

GO Transit rail corridor refers to a commuter rail service within a right-of-way, operated by Metrolinx.

GO Transit rail station is a regular stopping place on a GO train route, which includes platforms and often one or more buildings, operated by Metrolinx.

GO Transit rail station subject to further study is a future GO rail station identified for further review.

Grade separation refers to an underpass / tunnel or an overpass / bridge that allows a road or rail line to travel over or under the other, without the need for vehicles travelling on the road to stop.

Grade separation (capital program) refers to a grade separation between road and rail, identified as part of York Region's 10-year roads and transit capital construction program.

Grade separation (prioritized) refers to a grade separation identified as a priority, but not currently included in the 10-year capital construction program.

High-occupancy vehicle (HOV) lane refers to a reserved right-of-way or dedicated lane in a road for use by public transit vehicles and other vehicles such as emergency vehicles, taxis or multiple-person vehicles.

Interchange is a crossing of a Regional road over or under a provincial freeway with connecting ramps for traffic turning between the intersecting freeway and roadway.

Interchange (municipal initiative) is an interchange requested by a municipality and not within the Region's or provincial government's capital construction plan.

Major transit station area refers to the area including and around selected existing or planned higher-order transit stations or stops (bus rapid transit stations, GO stations and subway stations) within a settlement area. Major transit station areas generally are defined as the area within an approximate 500- to 800-metre radius of a transit station or stop, representing about a 10-minute walk. A minimum density target and boundary delineation are assigned to all protected major transit station areas in the Regional Official Plan.

Micromobility is transportation over short distances provided by eco-friendly, usually single-person vehicles such as electric bicycles and scooters

Mid-block crossing is a road connection over or under a major highway without ramp access.

Mobility hub consists of major transit stations and the surrounding area. They serve a critical function in the Regional transportation system as the origin, destination, or transfer point for a significant portion of transit trips. They are places of connectivity where different modes of transportation – from walking to riding transit – come together seamlessly and where there is an intense concentration of working, living, shopping and / or playing.

New road link is a new road designed to provide continuous access across communities.

Neighbourhood placemaking refers to strengthening connections between residents and the places they share through better urban design, including designing roads and other transportation infrastructure to encourage physical activity, make people feel safer and widen travel options.

Official Plan comprises a municipality's policies on how land should be used. Prepared with community input, it helps ensure that future planning and development will meet the specific needs of the community and growth forecasts prescribed by the provincial government. The Official Plan prepared for York Region is typically referred to as the Regional Official Plan. Each of the nine local municipalities within the Region has its own Official Plan.

Provincial freeway refers to an express highway with controlled access, such as highways 400, 404 and 427, maintained by the provincial government, and Highway 407, maintained by ETR 407.

Provincial highway is a road connecting regions, counties and / or cities, maintained by the provincial government. Provincial highways in York Region include Highway 9 west of Highway 400 and Highway 48.

Rapid transit corridor refers to transit infrastructure where lanes are for the exclusive use of buses or light-rail vehicles and are physically separated from other modes of travel within its own section. In York Region, a rapid transit corridor may also be referred to as a "rapidway."

Rapid transit subject to further study refers to a future rapid transit corridor identified for further review.

Rapidway is a dedicated lane in the centre of the road for use by YRT bus rapid transit vehicles (Viva) and emergency services.

Regional Centres and Corridors See Centres and Corridors.

Regional Official Plan See Official Plan.

Regional trail network is a connected series of shared facilities typically located outside the roadway for use by cyclists, pedestrians and other forms of active transportation.

Road improvement refers to a change to a road and / or its elements, including widening, reconfiguring and / or adding new structures or facilities such as bike lanes, cycle paths, high-occupancy vehicle (HOV) or transit lanes to improve travel options and traveller experience.

Road improvements (provincial jurisdiction) refers to a change to the road and / or its elements, including widening, reducing, re-configuring and / or adding new structures on a provincial highway.

Transit hub See mobility hub.

Transitway on existing / proposed provincial highway refers to transit infrastructure that is either adjacent to or separated from parallel provincial 400-series highways and is exclusively dedicated for buses or light-rail vehicles to accommodate longer-distance (express) passenger needs.

Transportation Tomorrow Survey is a co-operative effort by local and provincial government agencies to collect information about urban travel in southern Ontario. The survey has been undertaken every five years since 1986 to collect household travel data about travel origins and destinations, travel mode, trip purpose and more. The data collected helps local and regional governments, as well as the provincial government and its agencies, make informed transportation decisions on future planning and investment for roads, public transit and other transportation facilities.

Urban area refers to an area identified for existing or future urban uses.

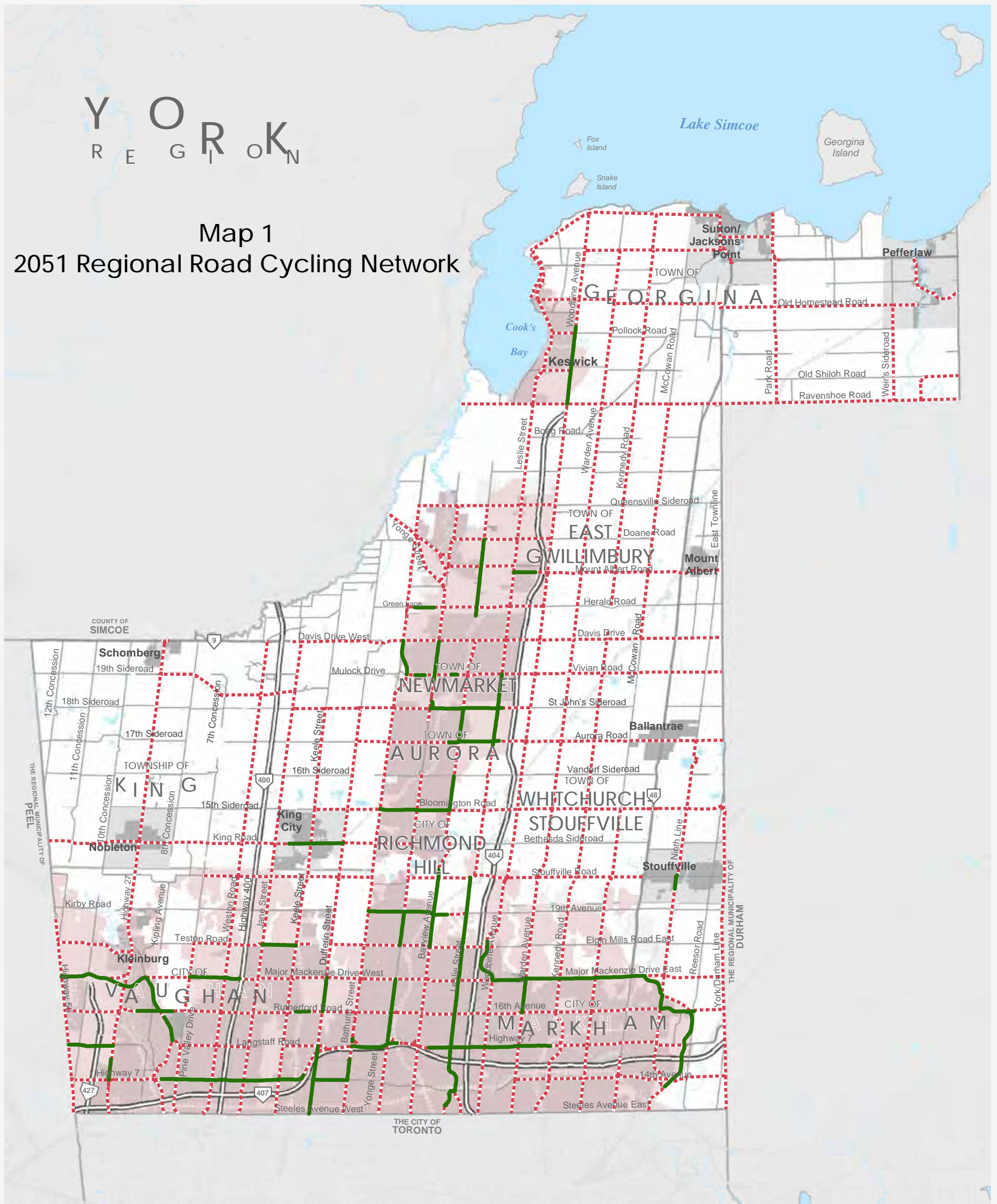
Urban boundary defines the limit for development within an urban area serviced with infrastructure like public transit, water and sewage pipes and recreation facilities to help control urban sprawl.

Window street is a road carrying traffic parallel to but not necessarily adjoining a highway.

Appendix B
Maps

YORK REGION

Map 1 2051 Regional Road Cycling Network



Existing Network*

Dedicated/Separated Facilities (Protected Bike Lane, Shared Pathway, Bike Lane)

Proposed Cycling Facilities

Cycling facility to be determined in consultation with Pedestrian and Cycling Planning and Design Guidelines

BASE MAP INFORMATION

- Provincial Freeway
- Provincial Highway
- Road
- Railway
- Urban Boundary
- Built-up Area
- Designated Urban Area



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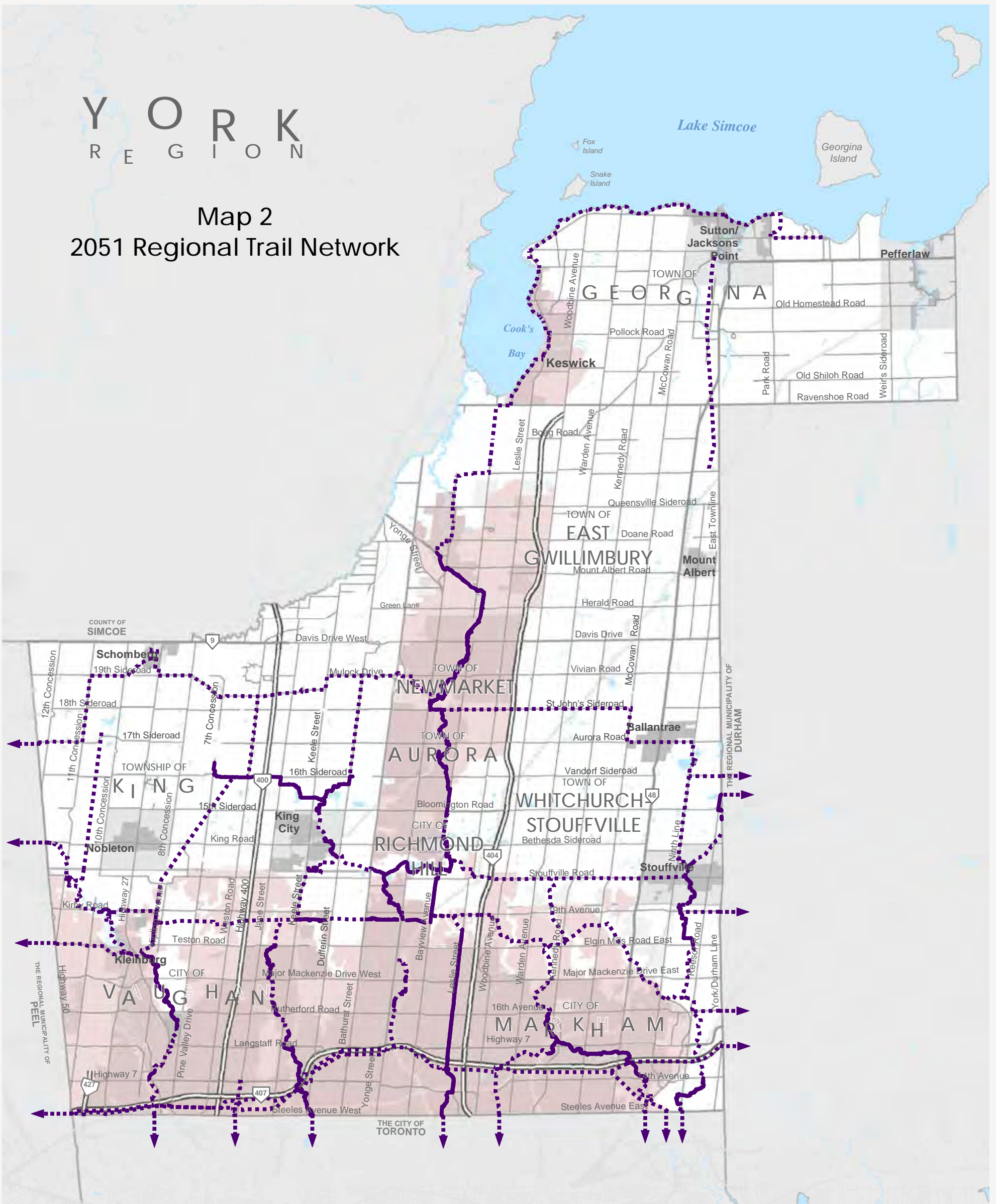
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*Wherever possible, existing cycling network is subject to infrastructure improvements in order to align with the Pedestrian and Cycling Planning and Design Guidelines.

YORK REGION

Map 2 2051 Regional Trail Network



Trails of Regional Significance

- Existing Region-Wide Trail Network
- ⋯ Proposed Region-Wide Trail Network

BASE MAP INFORMATION

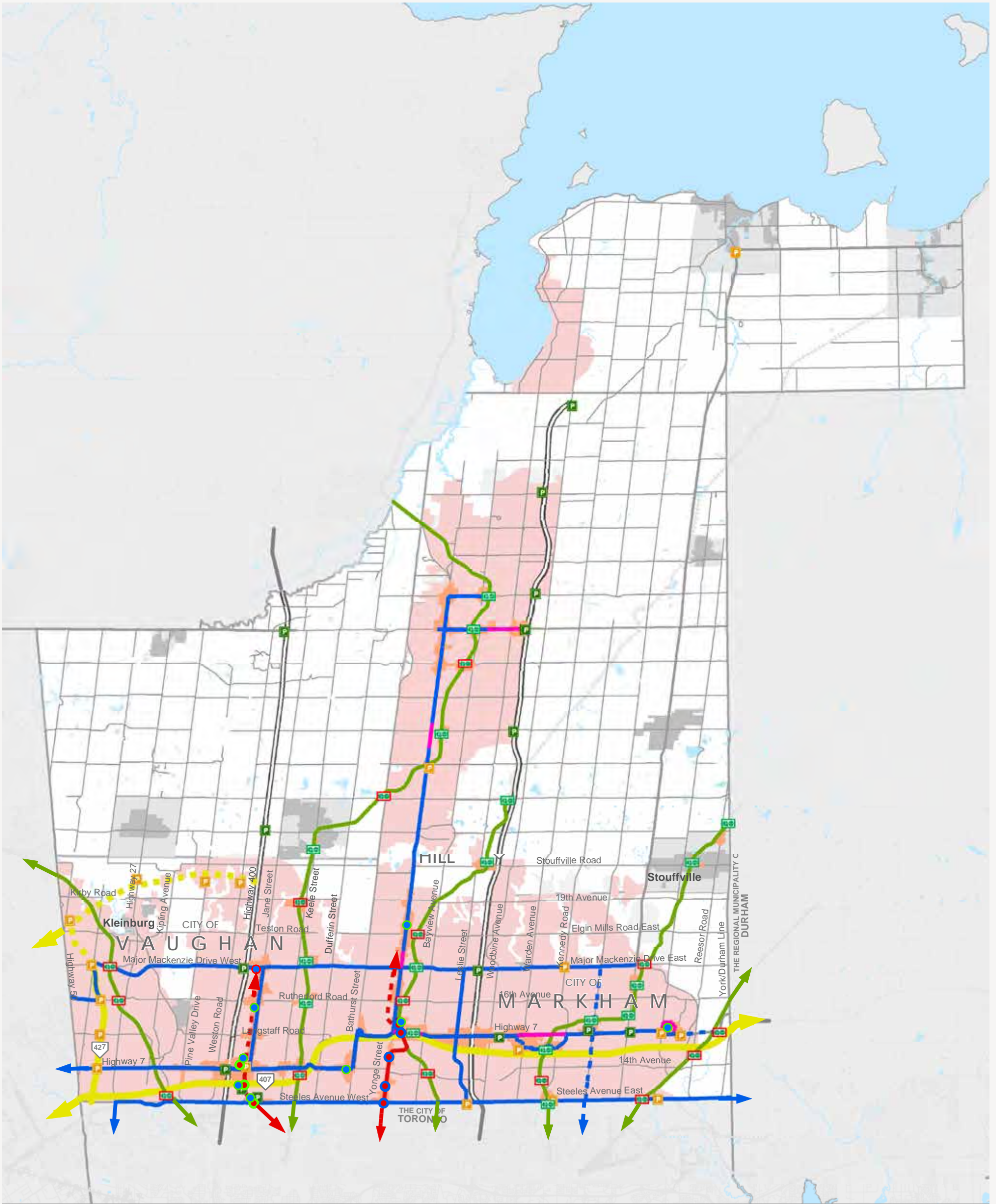
- Provincial Freeway
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Legend

- | | | |
|--|--|---|
| <p>Bus Terminals</p> <ul style="list-style-type: none"> Existing Bus Terminal (Green circle) Future Bus Terminal (Red circle) <p>Subway Stations</p> <ul style="list-style-type: none"> Proposed Subway Station (Blue circle) Existing Subway Station (Green circle) <p>GO Rail Stations</p> <ul style="list-style-type: none"> GO Rail Station (Green square with train icon) GO Rail Station subject to further study (Red-bordered green square with train icon) | <p>Commuter Parking Lots</p> <ul style="list-style-type: none"> Existing Lot (Green square with 'P') Potential Lot (Orange square with 'P') <p>Rapid Transit Service</p> <ul style="list-style-type: none"> Rapid Transit Corridor (Blue line) Rapid Transit subject to further study (Dashed blue line) BRT Curbside Service (Pink line) <p>Subway Service</p> <ul style="list-style-type: none"> Subway (Red line) Subway subject to further study (Dashed red line) | <p>Provincial GO Rail</p> <ul style="list-style-type: none"> GO Rail Corridor (Green line) <p>Transitway Service</p> <ul style="list-style-type: none"> Transitway Alongside Existing Provincial Highway (Yellow line) Transitway Alongside Proposed Provincial Highway (Dashed yellow line) Major Transit Station Area (Orange square) |
|--|--|---|

BASE MAP INFORMATION

- Provincial Freeway (Thick grey line)
- Provincial Highway (Thin grey line)
- Road (Thin black line)
- Railway (Dashed black line)
- Urban Boundary (Light red shaded area)
- Built-up Area (Grey shaded area)
- Designated Urban Area (Light grey shaded area)

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York Region **yorkmaps**

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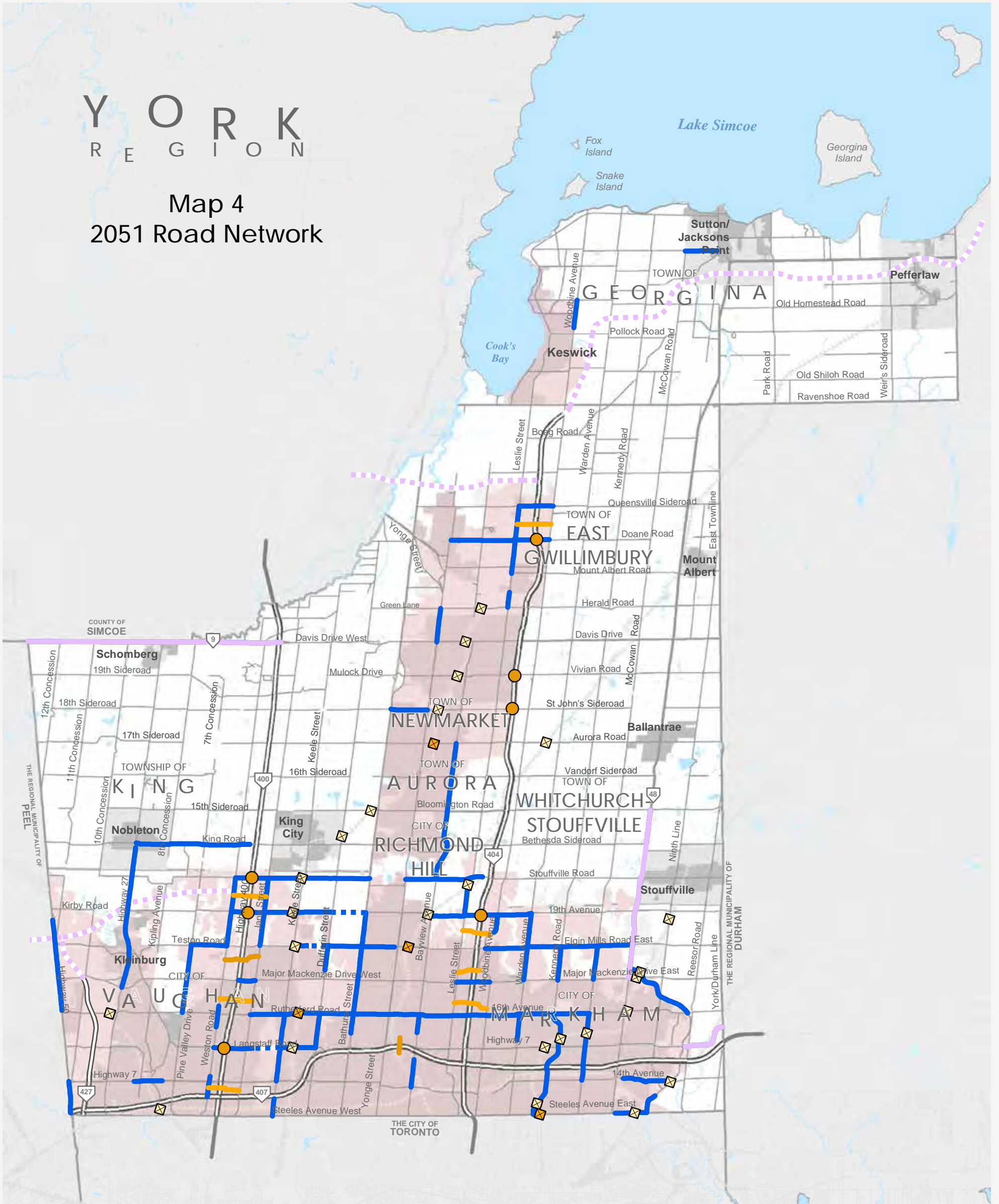
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Last Updated: 25 May 2022

* Note: This map represents the long-term transit plan for the Region. For more information on current transit services, please visit www.yrt.ca.

YORK REGION

Map 4 2051 Road Network



Legend

Road Projects

- Midblock Crossing
- Road Improvements
- New Road Link
- Road Improvements (Provincial Jurisdiction)
- Future Highway

Grade Separations

- Grade Separation (Included in 10-Year Capital Program)
- Grade Separation (Subject to Future Study)

Interchanges

- Potential Interchange or Interchange Improvements

BASE MAP INFORMATION

- Provincial Freeway
- Provincial Highway
- Road
- Railway
- Urban Boundary
- Built-up Area
- Designated Urban Area



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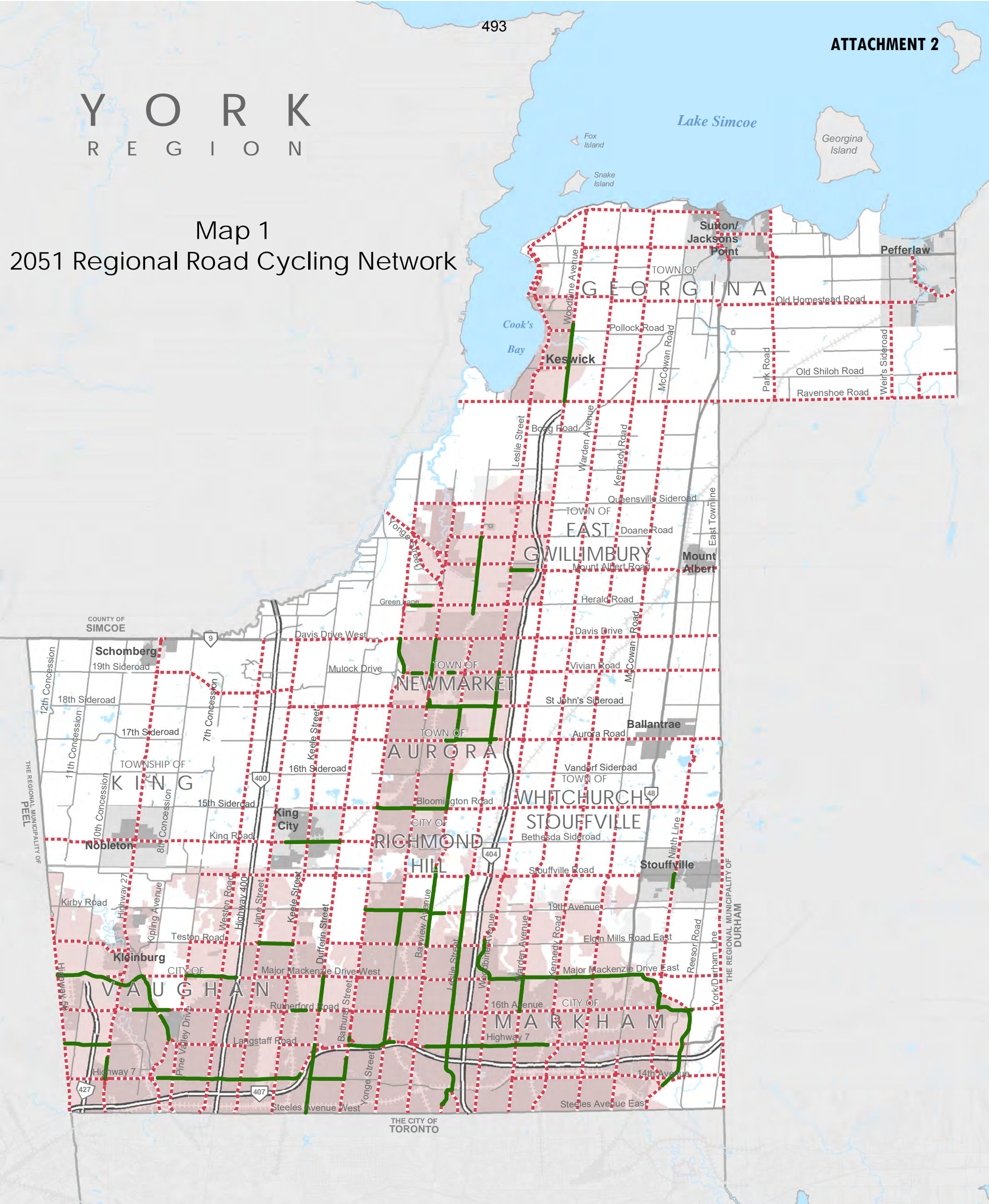
Email: transportation@york.ca

Website: york.ca

YORK REGION

Map 1

2051 Regional Road Cycling Network



Existing Network*

— Dedicated/Separated Facilities (Protected Bike Lane, Shared Pathway, Bike Lane)

Proposed Cycling Facilities

... Cycling facility to be determined in consultation with Pedestrian and Cycling Planning and Design Guidelines

BASE MAP INFORMATION

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- Urban Boundary
- Built-up Area
- Designated Urban Area



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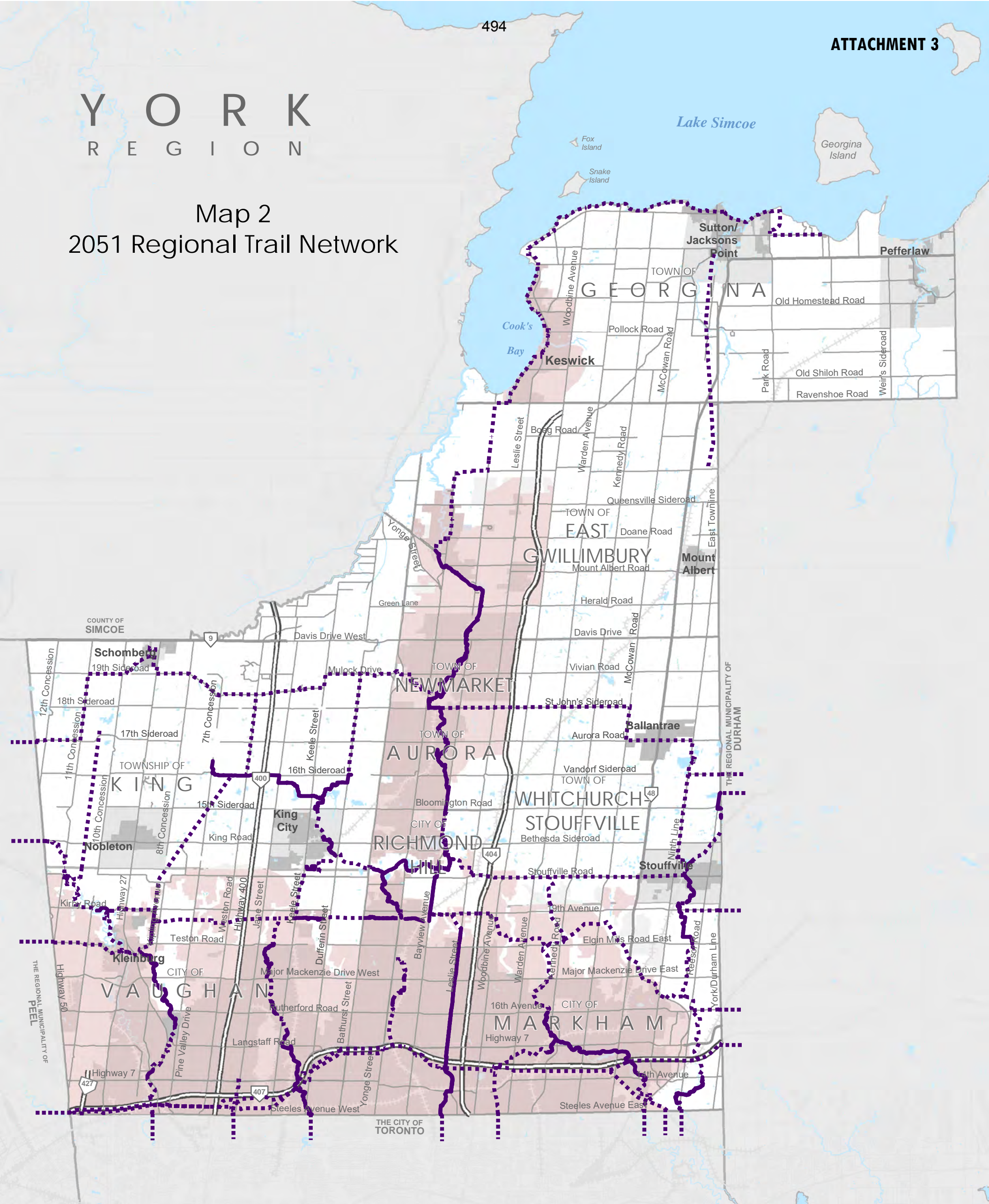
Date: 1 June 2022

**Final 2022 Transportation Master Plan
 June 16, 2022**

*Wherever possible, existing cycling network is subject to infrastructure improvements in order to align with the Pedestrian and Cycling Planning and Design Guidelines.

YORK REGION

Map 2 2051 Regional Trail Network



Trails of Regional Significance

- Existing Region-Wide Trail Network
- Proposed Region-Wide Trail Network

BASE MAP INFORMATION

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- Provincial Highway
- Road
- Railway
- Urban Boundary
- Built-up Area
- Designated Urban Area



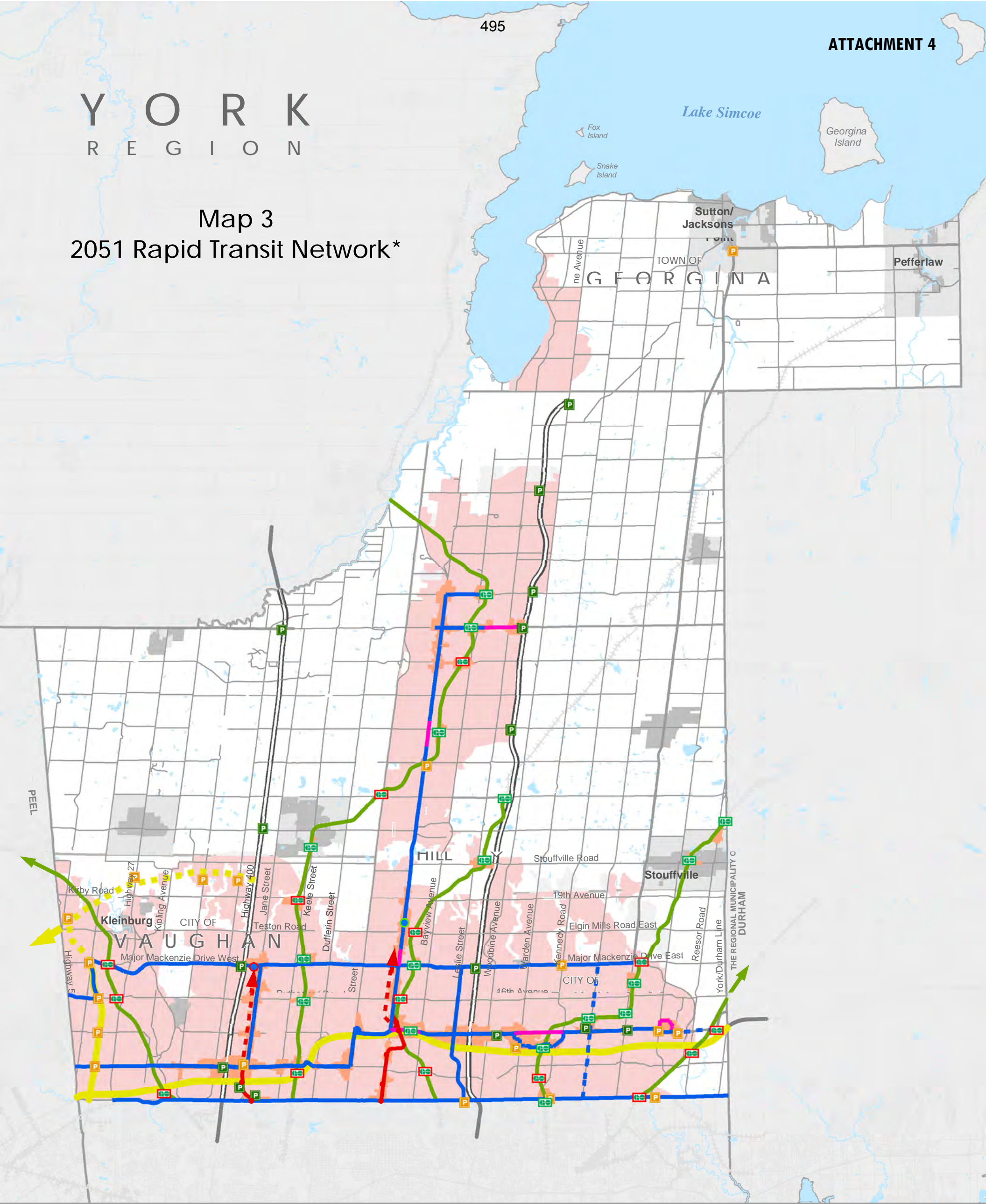
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Date: 1 June 2022

YORK REGION

Map 3 2051 Rapid Transit Network*



Legend

- | | | |
|--|--|--|
| <p>Bus Terminals</p> <ul style="list-style-type: none"> ● Existing Bus Terminal ● Future Bus Terminal <p>Subway Stations</p> <ul style="list-style-type: none"> ● Proposed Subway Station ● Existing Subway Station <p>GO Rail Stations</p> <ul style="list-style-type: none"> GO GO Rail Station GO GO Rail Station subject to further study | <p>Commuter Parking Lots</p> <ul style="list-style-type: none"> P Existing Lot P Potential Lot <p>Rapid Transit Service</p> <ul style="list-style-type: none"> — Rapid Transit Corridor — Rapid Transit subject to further study — BRT Curbside Service <p>Subway Service</p> <ul style="list-style-type: none"> — Subway — Subway subject to further study | <p>Provincial GO Rail</p> <ul style="list-style-type: none"> — GO Rail Corridor <p>Transitway Service</p> <ul style="list-style-type: none"> — Transitway Alongside Existing Provincial Highway — Transitway Alongside Proposed Provincial Highway Major Transit Station Area |
|--|--|--|

BASE MAP INFORMATION

- Provincial Freeway
- Provincial Highway
- Road
- Railway
- Urban Boundary
- Built-up Area
- Designated Urban Area



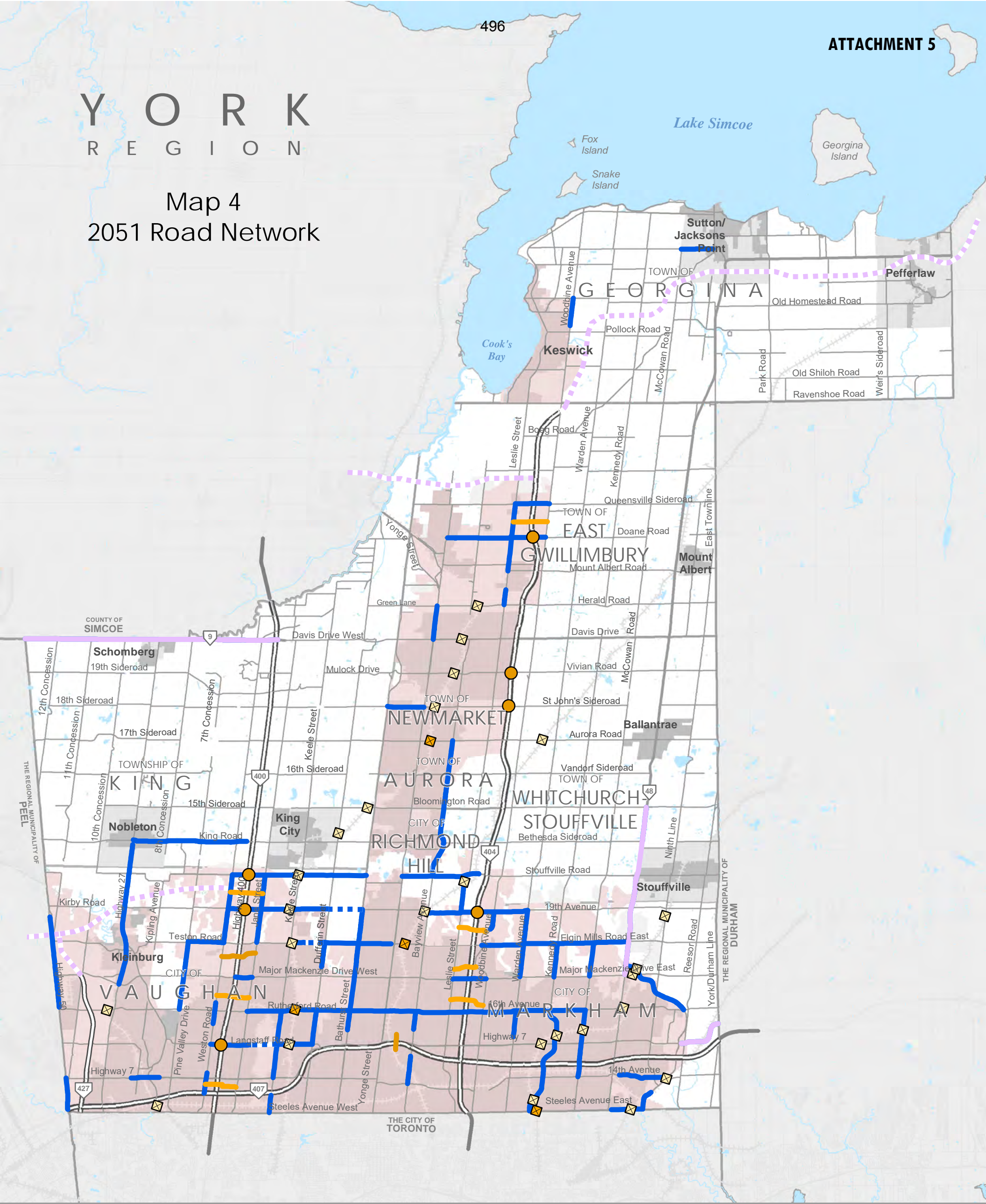
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* Note: This map represents the long-term transit plan for the Region.
For more information on current transit services, please visit www.yrt.ca.

YORK REGION

Map 4 2051 Road Network



- Legend**
- Road Projects**
- Midblock Crossing
 - Road Improvements
 - - - - New Road Link
 - Road Improvements (Provincial Jurisdiction)
 - - - - Future Highway

- Grade Separations**
- X Grade Separation (Included in 10-Year Capital Program)
 - X Grade Separation (Subject to Future Study)
- Interchanges**
- Potential Interchange or Interchange Improvements

- BASE MAP INFORMATION**
- Provincial Freeway
 - Provincial Highway
 - Road
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Date: 1 June 2022

On June 30, 2022 Regional Council made the following decision:

1. Council approve the Paramedic Services Master Plan 2021 – 2031, included as Attachment 1 to this report.
2. The Regional Chair write to the Provincial Minister of Health advocating for expedited rollout of the following: dispatch modernization, new models of care (such as treat and release) and sustainable funding for community paramedicine programs.
3. The Regional Clerk circulate this report for information to local municipalities, local hospitals, three Ontario Health Teams in York Region and the Minister of Health.

The original staff report is attached for your information.

Please contact Lisa Gonsalves, General Manager at 1-877-464-9675 ext. 72090 if you have any questions with respect to this matter.

Regards,

Christopher Raynor (he/him) | Regional Clerk, Regional Clerk's Office, Corporate Services Department

The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1

O: 1-877-464-9675 ext. 71300 | christopher.raynor@york.ca | york.ca

Our Mission: **Working together to serve our thriving communities – today and tomorrow**

The Regional Municipality of York

Committee of the Whole
Community and Health Services
June 16, 2022

Report of the Commissioner of Community and Health Services

Paramedic Services Master Plan 2021- 2031

1. Recommendations

1. Council approve the Paramedic Services Master Plan 2021 – 2031, included as Attachment 1 to this report.
2. The Regional Chair write to the Provincial Minister of Health advocating for expedited rollout of the following: dispatch modernization, new models of care (such as treat and release) and sustainable funding for community paramedicine programs.
3. The Regional Clerk circulate this report for information to local municipalities, local hospitals, three Ontario Health Teams in York Region and the Minister of Health.

2. Summary

This report provides an update on the Paramedic Services Master Plan and requests Council approval of the final 2021 – 2031 Master Plan.

Key Points:

- The foundational Demand and Capacity Study reported to Council in [November 2020](#) concluded that service demand will continue to grow substantially with a projected increase in demand of 119% by 2031, an increase from 91,625 incidents in 2021 to 163,606 incidents by 2031
- Following the results of the Demand and Capacity Study, the 2021 - 2031 Master Plan identifies the need for an additional 305 front-line staff, 39 support staff and 53 new vehicles (includes 50 ambulances, two special response units and one logistics vehicle) to address the 119% increase in demand, meet legislated and Council approved response time targets and ensure response times that are equitable across all nine local municipalities
- This work also concluded that the locations of existing and planned Paramedic stations are well positioned to meet future demands, although an additional station will be needed in South Keswick

- Following Council approval of the Master Plan (Attachment 1), staff will develop capital and operating budget plans, with implementation of the Master Plan targeted to begin in February 2023
- Implementation of the 2021 – 2031 Master Plan will involve annual evaluation of 911 call demand and resource capacity to validate ongoing staff needs where appropriate. This includes reviewing population projections against actual population growth and forecasts in the Regional Official Plan to assess appropriate resource needs

3. Background

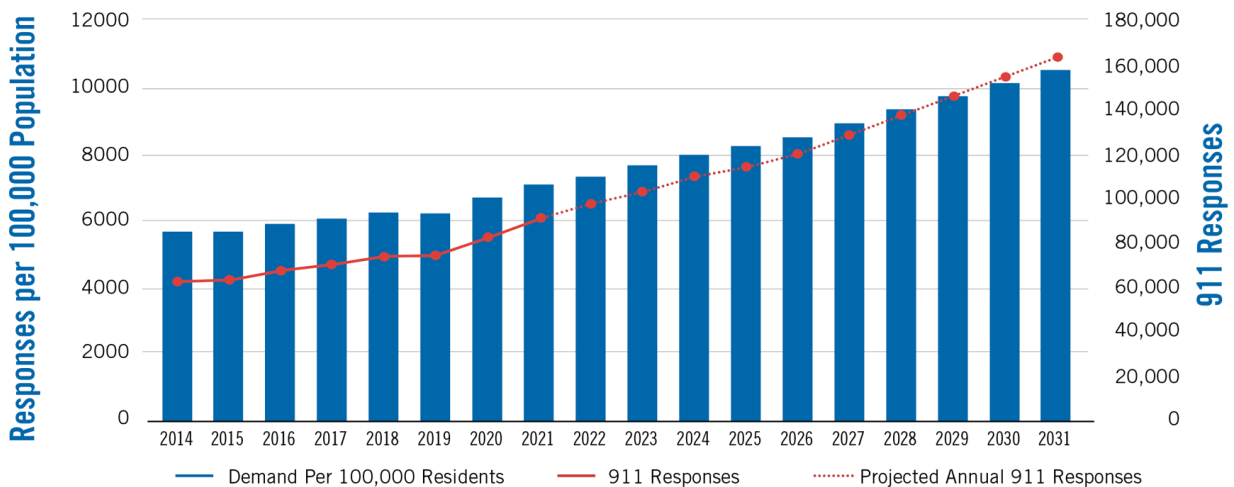
The 2021 - 2031 Master Plan, developed with experts in emergency services, is a process that began in 2020 with the Demand and Capacity Study

Since [2011](#), Paramedic Services has been working with experts in emergency services to develop and update its 2021 – 2031 Master Plan. In [September 2012](#), Council approved the York Region Emergency Medical Services 10-Year Resources and Facilities Master Plan and ongoing updates have been occurring regularly as more data becomes available and to re-evaluate demand projections.

In [November 2020](#), Council approved the Demand and Capacity Study for the 2021-2031 Master Plan. The Study included detailed data analysis to identify future demands and resource needs (such as station locations and infrastructure) required to meet service demands resulting from population growth and aging demographics. As previously reported to Council, the study concluded demand will continue to grow substantially with a projected increase in demand of 119% over the next 10 years from 91,625 incidents in 2021 to 163,606 incidents by 2031. Figure 1 shows actual and projected 911 demand from 2014 to 2031. It demonstrates that demand per 10,000 people is rapidly rising, driven mainly by the Region's aging demographic. Attachment 1 provides additional details on factors impacting 911 demand.

Figure 1

911 Response Demand 2014 – 2031, York Region Paramedic Services



Source: 2020 Demand and Capacity Study

The goal of the 2021 - 2031 Master Plan is to increase capacity to meet increasing 911 demand and achieve more equitable response times in each local municipality

As previously reported to Council in [November 2020](#), the new Master Plan aims to achieve more equitable response time performance in each local municipality. The Region is maintaining average response time targets for the whole Region, however, there are disparities in response times across the Region due to geographic conditions (such as urban versus rural, station locations, road locations, traffic conditions), location of incidents, and resources (such as staffing levels and ambulance availability due to call volumes and hospital offload times). For example, higher call volumes in urban areas typically mean resources in the system are constantly shifted to provide ambulance coverage to those areas, resulting in reduced coverage and capacity to respond in other areas of the Region.

The methodology used to develop the 2021 – 2031 Master Plan is aimed at achieving equitable response times Region-wide and in each local municipality. The new Master Plan sets a target of responding to Priority 4 (life threatening) patients in eight minutes or less 70% of the time Region-wide, including in each local municipality. This standard was selected as it continues to provide the same level of response time performance at the Regional level and provides resources that allow local municipalities to receive equity in response time. In practice, this means resources will be added to ensure system capacity keeps pace with growing demand to provide balanced emergency coverage. The goal is to reduce the amount of time that ambulances located in more rural areas are needed to assist in urban areas. This scenario will maintain response time performance.

The target used in the current Master Plan is a response time of 11 minutes and 29 seconds, 90% of the time. Using this target to determine paramedic resources would not allow for

adequate resources to meet demand and achieve equitable response times. See Attachment 1 for details on Current Levels of Service and Risks.

Extensive and comprehensive engagement was used to develop this 2021 – 2031 Master Plan

A new approach to the master planning process was used to make this Plan more robust and to ensure resources and partnerships needed to meet the future demand and efficiency opportunities were considered. Development of the new Master Plan was supported by a Regional Advisory group, consisting of multiple Regional departments (such as Public Works Finance and Corporate Services), and allied agencies (such as first responders, York Region’s hospitals and Ontario Health Teams).

The Region’s 2021 Annual Community Opinion Report found nearly 58% of residents are willing to spend the same and 40% are willing to spend more on paramedic services

The master planning process also considered the Region’s 2021 Annual Community Opinion Report. In 2021, Forum Research Inc. conducted the Region’s community opinion poll of York Region residents. Using random computer-assisted telephone interviewing, 1,120 residents aged 18 or older responded to York Region’s survey questions. To ensure its methodology was reflective of York Region’s general population, including the most recent Census data, Forum Research weighted all results within its report by municipality, age, gender, education, income, years lived in the Region, and ethnic background. Results are repeatable 19 times out of 20.

Residents were surveyed to understand their level of satisfaction with how tax dollars are being spent to provide York Region’s core services, such as paramedic services. In 2021, among all core services, paramedic services received the highest satisfaction score of 84%. This aligns with the results from the 2019 Annual Community Opinion Report, when nearly all (98%) residents agreed that paramedic services were an important core service for York Region to deliver.

In addition, residents surveyed were asked “how much should York Region spend on its core services, including paramedic services: more, less or the same?” In response, 58% said they would spend the same and 40% said they would spend more.

4. Analysis

The 2021 - 2031 Master Plan provides an overview of evolving demands in emergency services as a foundation for Paramedic Services to build capacity to ensure effective and efficient emergency responses

The Master Plan (Attachment 1) outlines the evolving landscape of emergency services and describes the forecasting and scenario modelling work completed to prepare for future demand in York Region. The following sections provide highlights from the new Master Plan

including the Demand and Capacity Study, resource needs, budgetary requirements and mitigation opportunities, and future considerations beyond 2031.

The 2021 - 2031 Master Plan foundational work considered factors beyond emergency response, such as mitigating 911 demand and changes in emergency services since the previous Master Plan was developed

This updated Master Plan considers:

- Historical 911 demand, population trends including demographic changes such as York Region's growing aging population, and intensification occurring or planned in areas of the Region such as transit-oriented communities
- Service delivery supports needed both in Paramedic Services and in the rest of the corporation to support the growing demands on the Service
- Factors that did not exist or have changed since 2012 when the previous Master Plan was developed, such as creation of Ontario Health Teams, greater integration of paramedics in the health care system and in the community (particularly evident since onset of the COVID-19 pandemic), the growing number of calls related to opioid drug use, increasing numbers of people in mental health crisis and continued challenges underlying issues impacting the social determinants of health (such as gaps in access to social and community supports)
- Mitigations that could help manage 911 demand subject to Provincial approval and investment, such as out-of-hospital programs like community paramedicine and Provincial plans to modernize dispatch, to ensure service quality while managing costs
- The need to add capacity in the system to mitigate workload challenges, support the well-being needs of paramedics and maintain a healthy, present, and vibrant workforce

Key paramedic resources needed to meet the projected demand have been identified in the 2021 – 2031 Master Plan

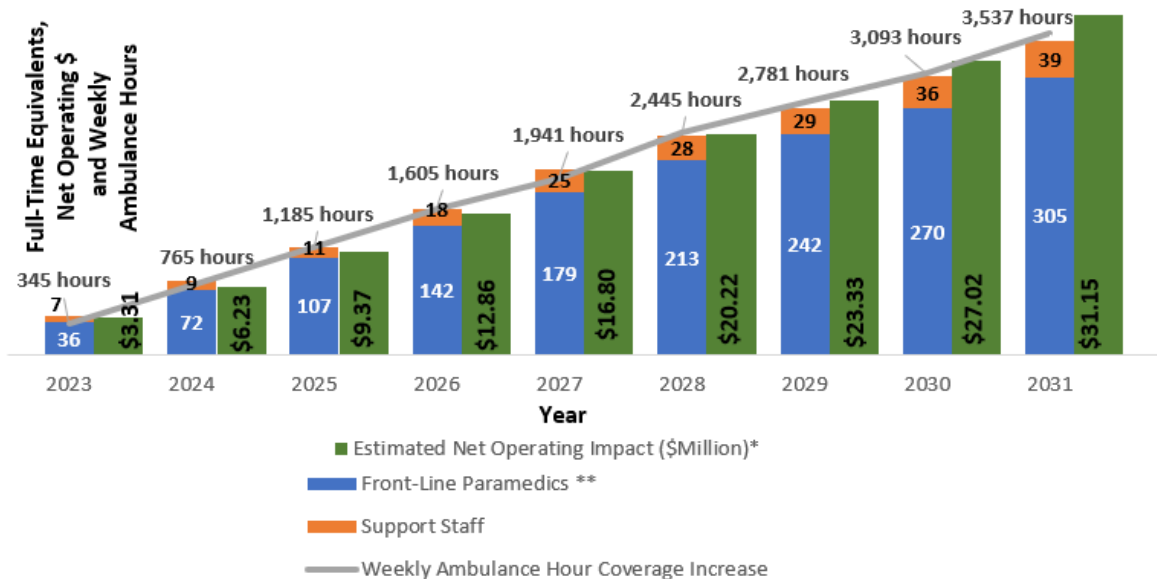
To meet the projected demand increase of 119% from 2021 to 2031 and achieve equitable response times across the Region, the following resource needs have been identified:

- **Stations:** One new station is needed in South Keswick to meet increasing demand, in addition to the five new stations already included in the capital budget to open between 2023 to 2031 for a total of 32 stations (including headquarters) by 2031. Based on the prior Master Plan up to 2021, York Region has 26 existing stations and five stations in planning stages. The review considered the location of the current and planned stations, concluding that they are well placed. An additional station is needed in South Keswick to meet population growth in the area, to ideally be operational by 2031. With the additional station, there would be a total of 32 stations (including Headquarters at 80 Bales Drive East, Sharon, Town of East Gwillimbury) by 2031.
- **Staffing:** Currently Paramedic Services has 6,552 weekly ambulance hours of service available (478 permanent front-line paramedics) and 78 permanent full-time

equivalent staff providing program supports (such as professional development, administration, scheduling). The review concluded 3,950 additional weekly hours of ambulance coverage would be required by 2031, which equates to 305 front line paramedics. An additional 39 support positions would also be required, including professional practice, scheduling, and administration, as well as technology and human resources support positions that the previous Master Plan did not consider. These new full-time equivalent staff would be added over the course of this Master Plan. Figure 2 below shows the relationship between the resources identified, relative to the expected weekly ambulance hours.

- Ambulances:** Currently Paramedic Services has 74 ambulances. The review concluded 50 additional ambulances are needed by 2031, bringing the total fleet count to 124. In addition to addressing demand, the additional ambulances will provide a spare ratio to 39% to ensure the Service has sufficient surge capacity to support frontline operations while maintaining compliance with Provincially mandated ambulance standards. An ambulance requires a significant amount of maintenance and inspection to meet legislative compliance, therefore a 39% spare ratio is required to provide frontline ambulances while maintenance and inspections occur, and this is consistent with industry standards. Two special response units and one logistics vehicle were also identified to meet future demand.

Figure 2
Staff Resources Relative to Expected Weekly Ambulance Hours



Note: Resources for 2021 and 2022 are already accounted for in the current budget cycle

Details are provided in Attachment 1, including an overview of ambulance hours and net new ambulances that will be added, subject to budget approvals, to each municipality on a yearly basis up to 2031. Costing data and information about possible cost mitigation is provided in the Financial section of this report.

Council approval of the 2021 - 2031 Master Plan will enable Paramedic Services to adequately plan for and respond to future demand for emergency services while maintaining efficient response time performance

Adopting the 2021 - 2031 Master Plan confirms Council's approach to move forward with the required amount of staffing, station, and ambulance resources needed to meet legislated and Council approved response times and to achieve equitable response times in each local municipality and Region-wide up to 2031.

If not properly addressed, population growth and aging population will lead to compromised emergency response times. Not adding the required resources identified in this Master Plan will lead to reduced system capacity, increased staff workload, the potential to increase staff leaves due to illness or injury and an inability to meet legislated response times, which would impact the ability to provide quality lifesaving services in the community. The addition of paramedics and resources is key to optimizing response times. Attachment 1 provides further details on the risks if there are no corresponding operational changes.

Staff will review the Plan regularly through annual evaluation of 911 call demand and resource capacity to validate ongoing staff needs and to adjust where appropriate to optimize response time performance (such as unexpected 911 and population growth or decline in an area). This includes evaluation of resource needs against population projections as forecasts are updated in the Regional Official Plan. Throughout the life of the Master Plan, staff will continue to assess opportunities for partnerships with our allied agency partners to co-locate stations and our Regional partners to make use of existing Regionally owned land, or cooperatively purchase land to facilitate station builds and develop greening initiatives to align with capital planning and the Region's long-term [Vision](#) to protect and sustain the natural and built environment.

Staff will also continue to partner with health system partners and the Ministry of Health to collaborate on programs that help to improve patient care while optimizing resource needs. Over the past two years we have seen new Provincial investment in models of patient care (including one-time funding for community paramedicine) and staff will continue to seek funding outside of traditional Land Ambulance Service Grant to support innovation that improves care and creates efficiencies in the 911 system.

Council will be updated through the Services' annual response time performance reports.

Continued growth of the Region's population beyond 2031 will require further planning and the consideration of hub models for service delivery

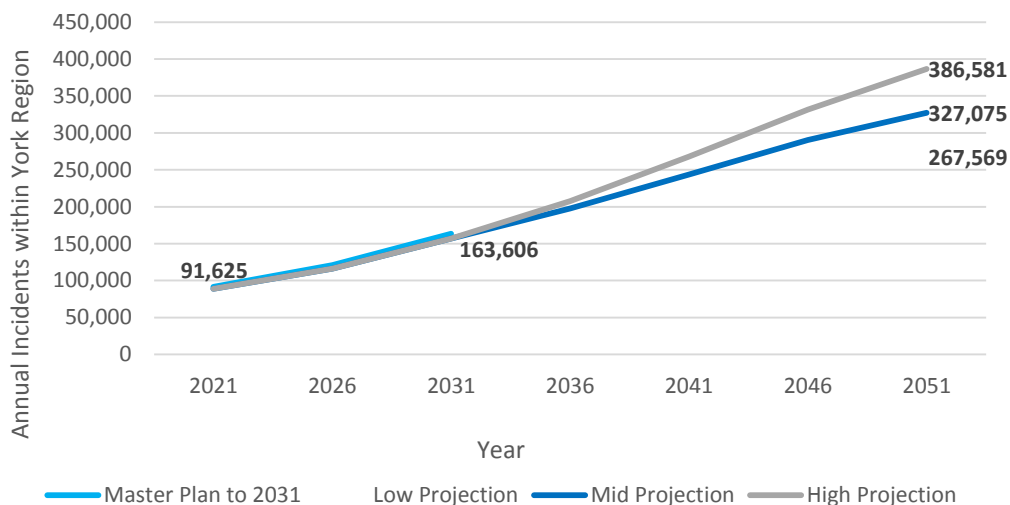
Figure 3 below provides modelling projections of 911 call demand up to 2051. These projections demonstrate that with steadily increasing 911 demand over the next 20 years, the resources identified in this new Master Plan need to be re-evaluated to ensure we have sufficient resources beyond 2031. For example, it is anticipated that by 2031 all garage space in existing paramedic stations will be at capacity.

Using the Region's updated population forecasts up to 2051, several long-range scenarios were modelled to understand 911 demand over the next 20 years. Each scenario

demonstrated a significant increase in demand on emergency services, resulting from population growth, intensification, and the building of transit-oriented communities along York Region’s subway stations. The transit-oriented communities in York Region will bring new housing, parkland, commercial, retail and community spaces to high-density communities. This future expansion in the Region signals the need for continued planning for capital and staffing resources to prepare for the expected growth beyond this Plan.

Figure 3

911 Demand Projections 2019-2051, York Region Paramedic Services



Source: Demand Projections, April 2022

Looking beyond 2031 and to maintain the appropriate number of ambulances available within the community, the benefits of a dynamic hub station model will be evaluated to determine how this model could help support future growth. The hub model is where paramedics report to a larger central station and are then deployed to the network of satellite stations. Paramedic response stations in the community have been used by some services to build station capacity. These potential hubs could be located on existing Regionally owned land. Paramedic Station Heat Maps (see Appendix 1 in Attachment 1) demonstrate this future hub station strategy may align well with the Service’s existing stations as the existing stations are appropriately placed to meet 911 response demand.

While this long-term forecast is dependent on many unknown factors, it demonstrates a clear picture that 911 demand will continue to increase. The 2051 projections provide the Service with a forecast of the required capital resourcing requirements and the need for additional resource planning beyond this Plan. Paramedic Services will continue to consider system innovations beyond 2031, including the evolving role of community paramedicine in the health care system, innovations to medicine, and broader modernization in the healthcare system that could impact demand for emergency services.

Paramedic Services is working with Public Works to implement emission reduction initiatives in support of the Region's Energy Conservation Demand Management Plan

In partnership with Public Works, Paramedic Services is investigating and implementing opportunities to advance long-term energy and greenhouse gas emission reduction initiatives under its fleet and buildings portfolios to align with the the Region's long-term [Vision](#) to protect and sustain the natural and built environment. Currently, the Service has 16 hybrid ambulances which have saved an estimated \$70,100 in fuel costs and reduced greenhouse emissions by about 140 tonnes each year. All 74 ambulances have been equipped with anti-idle technologies since 2020 that continue to significantly reduce fuel consumption and greenhouse gas emissions, in the range of about \$102,647 in savings and 226 tonnes in greenhouse gas emissions annually.

To meet long-term greenhouse gas emission targets and identify further cost savings, Paramedic Services and Public Works are looking for opportunities to pilot electric ambulances, accessing Federal and Provincial funding programs. Each electric ambulance would potentially reduce annual emissions by 36 tonnes. They would also lower operating, repair, and maintenance costs, and offer a longer asset life cycle of approximately eight to ten years compared to five to seven years for conventional vehicles.

Use of electric ambulances could result in significant savings of approximately \$124,724 per electric ambulance over its 10-year lifecycle. With 74 ambulances currently, and 50 more to be added by 2031, ultimately average annual cost avoidance could be in the range of \$1.5 million annually. Further analysis will be conducted to assess the full cost implications related to electric ambulances and the related infrastructure to maintain them (such as charging stations and batteries).

5. Financial

The 2021 – 2031 Master Plan will align with the Region's Operating and Capital Budgets to accurately plan for growth-related infrastructure

Development of the Master Plan was managed within the 2021 and 2022 Council approved operating budget. Resource needs for 2021 and 2022 are already accounted for in the current budget cycle.

Resource needs to respond to future service demands will be significant. The Master Plan identifies the need for an additional \$62.3 million in gross, and an estimated \$31.15 million net operating investment (assuming the Province will continue to provide 50% land ambulance grant funding) over the period 2023 to 2031 (approximately \$3.46 million annual net operating budget increase) to fund 305 additional frontline paramedics, 39 program support positions (total 343 full-time equivalent staff) and other program operating costs. Table 1 below provides an overview of the operating costs identified to meet demand between 2023 to 2031. The Master Plan also identifies the need for additional capital expenditures in the amount of \$27.2 million to fund the additional stations, ambulances, special response units and logistics vehicle.

In addition to the five stations already included in the capital budget, the Master Plan identifies the need for one new station in South Keswick and an increase to the ambulance fleet capacity by 50. Opening of the new station is planned for 2024 to 2025. Ambulances would be added over the course of this Master Plan.

Table 1
Resources Identified to Meet Demand, 2023 to 2031*

	Master Plan Relevant Period									
	Next Budget Cycle				Future Budget Cycles					2023-2031 Total
	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Operating Needs to Address Demand										
Full-time Front-line Paramedics	36	36	35	35	37	34	29	28	35	305
Support Staff**	7	2	2	7	7	3	1	7	3	39
Total FTE's	43.0	38.0	37.0	42.0	44.0	37.0	30.0	35.0	38.0	344
Estimated Net Operating Impact (Million)***	\$3.31	\$2.92	\$3.14	\$3.49	\$3.95	\$3.42	\$3.11	\$3.69	\$4.13	\$31.15
Incremental Call Volume	5,828	6,177	6,547	5,100	7,850	8,361	8,904	9,482	8,236	66,485
Estimated Net Operating Impact Per Emergency Call	\$568	\$472	\$480	\$684	\$503	\$409	\$349	\$389	\$502	\$4,355

* Resources for 2021 and 2022 are already accounted for in the current budget cycle

** Support Staff includes paramedic support staff such as professional practice, scheduling and administration; Integrated Business Services staff, such as technology/data and integrity and education; and Human Resources

*** Assumes 50% funding through Land Ambulance Service grant for all incremental costs

*** Measure only of resources identified in the Master Plan. Does not account for increases to base service (e.g., COLA on existing staff and inflation on existing materials/supplies)

Upon Council approval of the 2021 – 2031 Master Plan, staff will develop the 2023 to 2026 Operating Budget and 10-year capital budget to reflect the resource requirements identified in this Master Plan. Requests for these additional resources will be brought forward to Council for consideration as part of the 2023 to 2026 budget process.

In addition, the resource needs identified for the Master Plan are reflected in the 2022 Development Charges Bylaw and Background Study that was brought forward Council in [May 2022](#). Capital expenses have been considered through the Study.

Paramedic Services and Public Works are currently exploring funding opportunities to support an electric ambulance pilot, such as the Federation of Canadian Municipalities' Feasibility Studies and Pilot Projects funding stream, to better understand the implications for this technology and improve our readiness.

To mitigate budget costs, staff implemented internal efficiencies to optimize staffing resources requirements

Examples of service innovations the Region has already implemented or are planned that reduce service demand (and costs) are described in the [November 2020](#) report. Additional opportunities and updates are provided below.

Staff evaluated all operational areas for options to improve efficiencies and mitigate future costs while protecting staff resilience, optimizing resources, and reducing 911 call demand. For example, the Rapid Response Program and Multi-Patient Unit Program were reviewed to identify resources that could be used to offset needs in the 2021 – 2031 Master Plan. As a result, 336 weekly ambulance hours were added to the system thereby reducing future ambulance hour increases that would be needed. This resulted in reducing the number full-time equivalent positions that would otherwise have been identified as required in the Master Plan by 16 full-time equivalent positions.

Staff will continue to seek opportunities to optimize savings by partnering with internal and external stakeholders on cooperative land purchases and funding opportunities. To continue to build staff resilience, partnership opportunities with agencies, such as Wounded Warrior Canada, will be explored to provide health and wellness services to support first responders. See Attachment 1 for details on Resource Optimization.

System innovations could also mitigate resource requirements and future 911 service demands, and Regional Council support is needed to advocate to the Minister of Health

System improvements in the health care system are an important component for addressing increasing 911 call volumes and increasing transfer of care times at hospital, which impact staff resources as system demand grows. To address these challenges, the most significant savings would come from changes that only the Province can make through legislative reform and/or additional investments. Three examples that could drive efficiencies but require Provincial action to implement are: dispatch modernization, new models of care, and community paramedicine. See Attachment 1, Alternative Scenarios – Impact Modelling for details on these alternative models that could help to meet response time targets while optimizing the number of resources required in the future.

Since [February 2020](#), the Region has been advocating for the modernization of emergency services to address these issues. Additionally, sector leaders, such as the Association of Municipalities of Ontario, Paramedic Chiefs of Canada, and the Ontario Association of Paramedic Chiefs, have been advocating for better integration of paramedics in the health care system.

In each of these alternative models, more efficient use of staff resources could be achieved, however, these changes are beyond the Region's direct control and depend on Provincial change and investment. This report recommends Regional Council advocate to the Minister of Health to expedite dispatch modernization and enhance new models of care, and to make legislative reforms and financial investments that will build the capacity of community paramedicine programs. See Attachment 1, Resource Optimization for more details.

Additionally, as demand grows, increased paramedic time spent at hospitals offloading patients is a growing concern that impacts the availability of appropriate paramedic resources in the community. As previously reported to Council in [February 2022](#), the Ministry of Health funds the Dedicated Offload Nurse Program to help reduce time spent at hospitals by paramedics, enabling ambulance crews to transfer care of patients to the hospital and return to covering 911 calls faster. Provincial funding has not kept pace with the increased hours of coverage needed at the Region's hospitals due to increased demand. While Regional Council advocated to the Province in [February 2022](#) to increase funding of the program to cover the cost of increased nursing hours needed at all hospitals due to growth in transports, the Ministry of Health has not provided any further details to York Region to date.

6. Local Impact

The new Master Plan identifies the required resources to ensure system capacity keeps pace with growing demand to meet a targeted response of eight minutes or less for Priority 4 (life threatening) calls 70% of the time, in each municipality, and thereby achieving equitable response time performance at both the local municipal and regional levels.

Paramedic Services will continue to work with municipal partners to co-locate stations and leverage resources to provide equitable response times across the Region. The new Master Plan will effectively maintain response time performance to meet future service demand needs to address increasing population growth and aging demographics up to 2031.

7. Conclusion

By 2031, demand on the 911 system is projected to increase by 119% due to forecasted population growth and an increasing aging population. The 2021 - 2031 Master Plan accurately plans for these growth trends with a focus on increasing response performance and equity across the Region's local municipalities. This includes identification of appropriate station locations, staffing resources, ambulance resources, and key Provincial reforms needed to respond to future demands to ensure the right resources are available in Paramedic Services and across the corporation to provide timely services to the community and meet legislative and Council approved response time targets.

It is recommended that Council approve the Paramedic Services Master Plan 2021 - 2031. With Council approval, the 2021 - 2031 Master Plan will inform future Paramedic Services planning, Regional development charge background studies, and future business plans and budgets. Following Council approval of the Master Plan, the 2023 to 2026 operating and capital budgets and business cases will be developed and submitted in accordance with the Region's budget process.

For more information on this report, please contact Lisa Gonsalves, General Manager at 1-877-464-9675 ext. 72090. Accessible formats or communication supports are available upon request.



Recommended by:

Katherine Chislett

Commissioner of Community and Health Services



Approved for Submission:

Bruce Macgregor

Chief Administrative Officer

May 25, 2022

Attachment (1)

eDOCS # 13828879



LAND ACKNOWLEDGMENT

We acknowledge York Region is located on the traditional territory of many Indigenous peoples such as the Anishinaabe, Haudenosaunee, Huron-Wendat and Métis peoples and the treaty territories of the Haudenosaunee, Mississaugas of the Credit First Nation and Williams Treaties First Nations. This land is now home to many diverse Indigenous peoples. York Region is located within the boundaries of the Nanfan Treaty, Treaty 13 and the Williams Treaties. There are also other land claims and treaty rights involving portions of York Region that have not been resolved. The Chippewas of Georgina Island First Nation is a Williams Treaty First Nation and the closest First Nation community to York Region.



Mayor
Frank Scarpitti
City of Markham



Regional Councillor
Don Hamilton
City of Markham



Regional Councillor
Jack Heath
City of Markham



Regional Councillor
Joe Li
City of Markham



Regional Councillor
Jim Jones
City of Markham



Mayor
David West
City of Richmond Hill



Mayor
Maurizio Bevilacqua
City of Vaughan



Chairman & CEO
Wayne Emmerson



Regional Councillor
Joe DiPaola
City of Richmond Hill



Regional Councillor
Mario Ferri
City of Vaughan



Regional Councillor
Gino Rosati
City of Vaughan



Regional Councillor
Linda Jackson
City of Vaughan



Mayor
Margaret Quirk
Town of Georgina



Regional Councillor
Robert Grossi
Town of Georgina



Mayor
Tom Mrakas
Town of Aurora



Mayor
Virginia Hackson
Town of East Gwillimbury



Mayor
Steve Pellegrini
Township of King



Mayor
Iain Lovatt
Town of Whitchurch-Stouffville

A Message from York Region Chairman and CEO and Members of Regional Council

Paramedics are an integral part of the health care system and a key partner in achieving York Region's commitment to strong, caring and safe communities.

As York Region's population continues to grow and age, the demand for paramedic services is also projected to increase by approximately 7% each year from now through to 2031.

The *York Region Paramedic Services Master Plan, 2021-2031* is the long-term plan providing data and insight to what is required to ensure we can continue providing excellent paramedicine care to residents across our nine cities and towns.

The plan also highlights the importance of innovation and partnerships needed for continued financial sustainability of this critical service.

This long-term plan is a proactive approach to future planning and was developed with experts in emergency services. It will help enable Paramedic Services to adequately plan future demand of emergency services while maintaining balanced and efficient 9-1-1 response times.



Regional Councillor
Carmine Perrelli
City of Richmond Hill



Mayor
John Taylor
Town of Newmarket



Regional Councillor
Tom Vegh
Town of Newmarket

YORK REGION PARAMEDIC SERVICES MASTER PLAN, 2021 TO 2031

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Chief’s Message

On behalf of York Region Paramedic Services, I am pleased to present our Paramedic Services Master Plan 2021 – 2031. The Master Plan highlights the evolving demands in emergency services and provides a foundation for Paramedic Services to build capacity and respond effectively over the next 10 years.

As Paramedic Services has become an integral part of the health care system, improving access to care by collaborating with and linking patients to primary and community care to ensure their needs are met, it is important to build and sustain our capacity to meet the future needs of patients.

The commitment and perseverance of our Service members, the support of Regional Council, and the collaboration with our community partners have enabled us to continue providing the high level of service for which we are known.

Despite the challenges faced during the COVID-19 Pandemic, our Service members continue to serve the community with dedication and compassion. We continue to meet Provincially legislated and Council approved response times despite increased demand. I am very proud of every member of our organization – it is through their outstanding commitment and skill that York Region Paramedic Services continues to provide world class Paramedic service every day. This Master Plan will provide the direction to continue to provide this level of service in the future.

Sincerely,

Chris Spearen,
Chief
York Region Paramedic Services



INTRODUCTION

The Changing Landscape of Emergency Services

The role of paramedics, which has historically been viewed as emergency response and transportation, has expanded to include a range of community-based health and social services that are improving access to care services by linking patients to primary and community care.

As delivery of emergency services continues to evolve, and York Region's population grows and diversifies, York Region paramedics are responding to more incidents and complex calls than ever before. Planning for the future requires emphasis on coordinated and connected care that puts patients first, while being efficient to mitigate costs.

Purpose of the Paramedic Services Master Plan 2021 to 2031

York Region Paramedic Services uses multi-year plans and evidence to guide decision making on the allocation of staff, vehicles, and station locations for York Region, to maintain a high level of service and meet response time standards.

The Paramedic Services Master Plan 2021-2031 was developed to ensure Paramedic Services can meet York Region's growing demand and sustain current service levels up to 2031. The [2020 Demand and Capacity Study](#) forecasted population growth, demographic trends and the evolution of demand in the Region. Against this backdrop, development of the Master Plan included detailed analysis of potential response time performance, considering factors such as roadway networks, urban development, travel time, and community resources.

The purpose of the Master Plan is to identify the future staffing, fleet and station resources required to respond to 911 demand and the needs of the Region's growing and aging population, equitably and consistently across all local municipalities. Realization of these resources depends on the Region's budget process, availability of Provincial funding and actual population growth and forecasts in the Regional Official Plan. The Master Plan also identifies opportunities and potential opportunities to mitigate costs.

Assessing the resources needed requires setting a standard for performance. After detailed analysis including modelling scenarios, this Master Plan uses a performance standard of responding to Priority 4 (life threatening) incidents in eight minutes or less, 70% of the time, regardless of the local municipality where the 911 call originated from. This standard is in line with Provincially legislated and Council approved response time targets (see Table 1 page 10 for details on the Canadian Triage Acuity Scale).

While considerable infrastructure is required to operate a world class service, such as stations, ambulances and specialized equipment, at its core, effective paramedicine requires highly qualified and compassionate staff. The Master Plan will also be used to help guide workforce development, staff retention and the well-being needs of paramedics.

Resource Needs

This Master Plan identifies the need for an additional \$62.3 million in gross, and an estimated \$31.15 million net investment (based on a 50% land ambulance grant funding assumption) over the period from 2023 to 2031 (approximately \$3.46 million in annual net operating budget) to fund 305 additional frontline paramedics, 39 program support positions (total 344 full-time equivalent staff) and other program operating costs. Further, capital expenditures in the amount of \$27.2 million have been identified to fund the additional stations, ambulances, special response units and logistics vehicle. Resource needs for 2021 and 2022 are already accounted for in the current budget cycle. Paramedic Services completed the 2020 Demand and Capacity Study to cover the period of 2021 to 2031 to understand increases in demand and resource needs. Instead of adding staff to cover resource gaps, the Rapid Response Unit program was converted to ambulances and one 24-hour ambulance was added to cover the demand increase in 2022.

Since 2011, York Region Paramedic Services has been working with experts in emergency services to plan for the future demands of emergency services in the Region while supporting response time performance. Previous Master Plan updates using the consultant's modeling have proven to accurately reflect demand and place the Region's stations in the right locations to meet the needs of residents, as well as plan for growth trends.

CURRENT LEVEL OF SERVICE

York Region has a population of 1.2 million residents and covers 1,778 square kilometres, stretching from Toronto to Lake Simcoe. It comprises nine local municipalities with a range of cities, towns, villages, and rural areas. It includes the Chippewas of Georgina Island First Nation which is located on the east shore of Lake Simcoe comprised of three islands: Snake, Fox, and Georgina.

Currently there are 26 Paramedic Services Response Stations located across York Region. Five additional stations are to be built between 2022 to 2026, and two existing stations will be replaced with new, larger stations to address and expand service capacity. By 2026, there will be a total of 32 paramedic stations, including the headquarters building located at 80 Bales Drive East in Sharon, Town of East Gwillimbury.

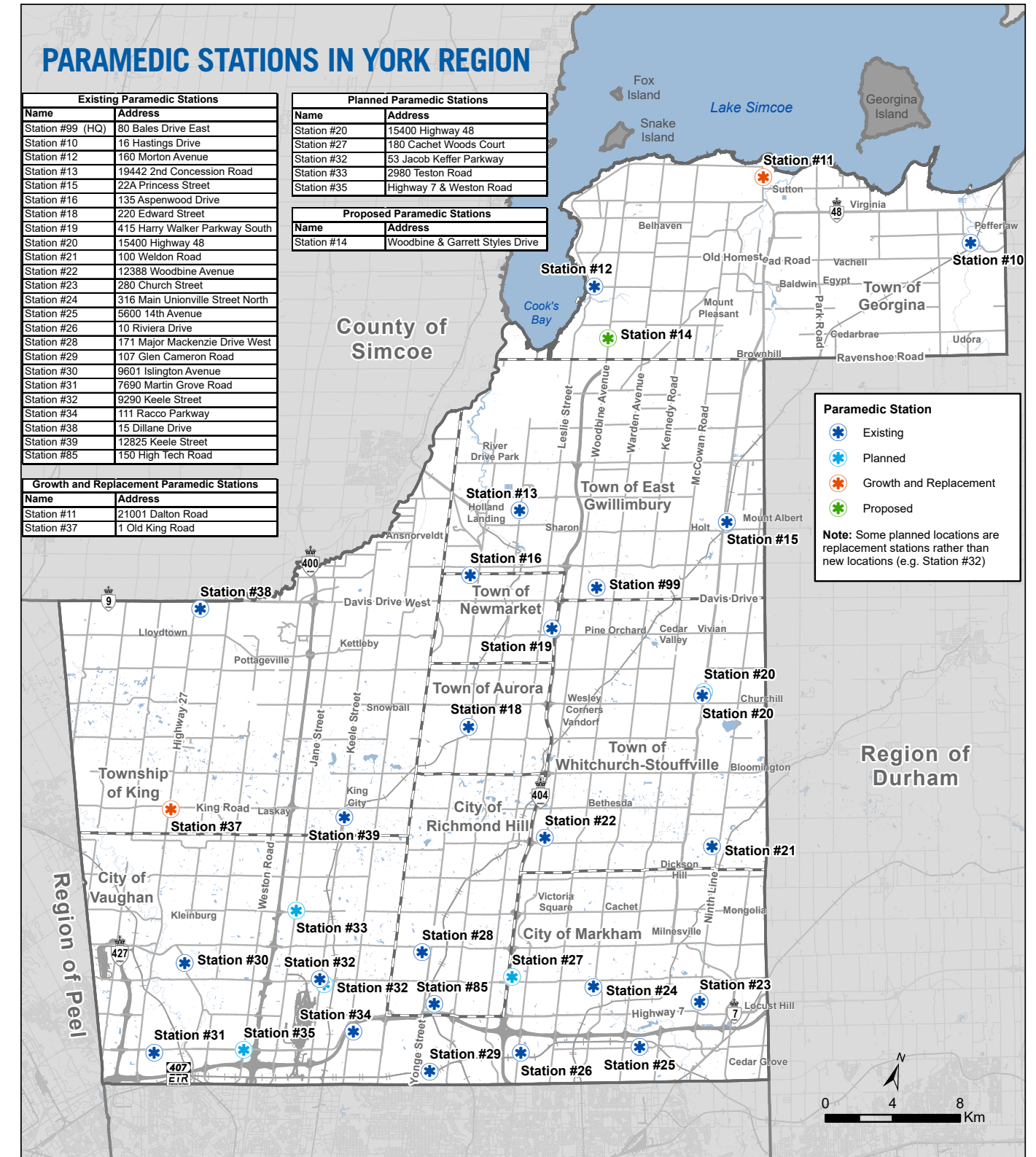
York Region Paramedic Services staffing levels in 2021 were 556 permanent full-time equivalents, including front-line staff (478) and those vital to operations such as professional practice, scheduling and administration (78).

York Region Paramedic Services currently operates 74 ambulances 24 hours a day and an additional 10 ambulances 12 hours a day. At peak hours, 12 p.m. to 12 a.m., there are 44 ambulances staffed. In addition, the service has four Special Response Unit vehicles, five Paramedic Superintendent response vehicles and one Multi-Patient Unit that are operational 24-hours a day.

Response Times

Paramedic resources and facilities are planned and located to enable York Region Paramedic Services to respond to 911 demand within Provincially legislated and Council approved response times.

The Canadian Triage Acuity Scale (CTAS) is a five-level tool used to assess the severity of a patient's condition and the need for timely care. CTAS level 1 is the most severe (resuscitation) and CTAS level 5 is the least severe (non-urgent). Table 1 provides response time targets for sudden cardiac arrests and each CTAS level for York Region.



Source: York Region Corporate Services, Data, Analytics and Visualization Services



Table 1: Response Time Targets for York Region Paramedic Services

Category and examples	Target response time from dispatch to arrival on scene	Targeted percentage to meet response times (%)
Sudden Cardiac Arrest Absence of breathing, pulse	Community Target: Arrival of any person equipped with an AED within 6 minutes Set by the Ministry	60
CTAS 1 - Includes sudden cardiac arrest or other major trauma	8 minutes Set by the Ministry	75
CTAS 2 - Chest pain, stroke, overdose	10 minutes Set by York Region	80
CTAS 3 - Moderate pain or trauma	15 minutes Set by York Region	90
CTAS 4 – Minor trauma, general pain	20 minutes Set by York Region	90
CTAS 5 – Minor ailments, repeat visits	25 minutes Set by York Region	90

While response time performance is based on CTAS scores applied to patients by paramedic assessment on scene, calls to the 911 dispatch system are categorized by a 4-level Call Priority Code. The most commonly dispatched codes are Priority 4 (life threatening – “lights and sirens”) responses for the most severe incidents such as cardiac arrest, chest pain, stroke and trauma and Priority 3 (urgent – non “lights and sirens”).

Data collected for the Demand and Capacity Study over a sample period from January 1, 2018, to September 30, 2019 (pre COVID-19), found a significant variance in response times across the Region due to geographic conditions (lower vs higher volume areas, station locations, road locations, traffic conditions) and resources (staffing levels and ambulance availability due to call volumes and hospital offload times).

The current deployment plan for ambulances and their crews is designed to ensure coverage across the Region. Typically this means resources are shifted from less densely populated areas to more densely populated areas during times of high 911 response demand to optimize resources and to help meet a Region-wide standard. As population density and 911 demand continues to increase, additional resources will be required to achieve 70% Priority 4 performance across the Region and to achieve equity in responses to all local municipalities.

The Demand and Capacity Study is the foundational Master Plan work that identified future demand and resource requirements for York Region Paramedic Services up to 2031. The Study was reported to Council in [November 2020](#).

CHANGING DEMAND

York Region’s population is growing and is set to grow even faster over the next decade. Between 2014 and 2019 the population increased by 7.3%, or about 1.4% per year; forecasts predict that by 2031 the population will rise by a further 30.1%, or 360,000 people, an increase of about 2.2% per year. The speed and amount of growth contributes to the need for additional paramedic resources.

Most of the increase will take place in urban areas such as the City of Markham and the City of Vaughan. Rural areas such as the Town of East Gwillimbury will see greater proportional increases, in some cases doubling in size. Planning for this growth will allow the service to balance resources appropriately to maintain equitable access to paramedic services across all nine local municipalities into the future. Figure 1 below provides an overview of population forecasts in each municipality up to 2031.

Figure 1 : Population Forecast by Local Municipality

Local Municipality	Year				Increase from 2019	Average Yearly Increase
	2019	2021	2026	2031		
Aurora	62,786	64,512	69,514	74,852	19.2%	1.5%
East Gwillimbury	32,877	39,617	53,275	77,758	136.5%	7.4%
Georgina	48,415	51,734	56,640	62,242	28.6%	2.1%
King	27,760	28,990	32,048	34,771	25.3%	1.9%
Markham	347,771	386,698	425,334	458,786	31.9%	2.3%
Newmarket	89,957	92,549	97,054	100,843	12.1%	1.0%
Richmond Hill	208,146	224,827	214,745	258,503	24.2%	1.8%
Vaughan	330,855	351,747	383,379	427,932	29.3%	2.2%
Whitchurch-Stouffville	49,088	52,944	59,040	62,012	26.3%	2.0%
York Region	1,197,655	1,293,618	1,418,029	1,557,699	30.1%	2.2%

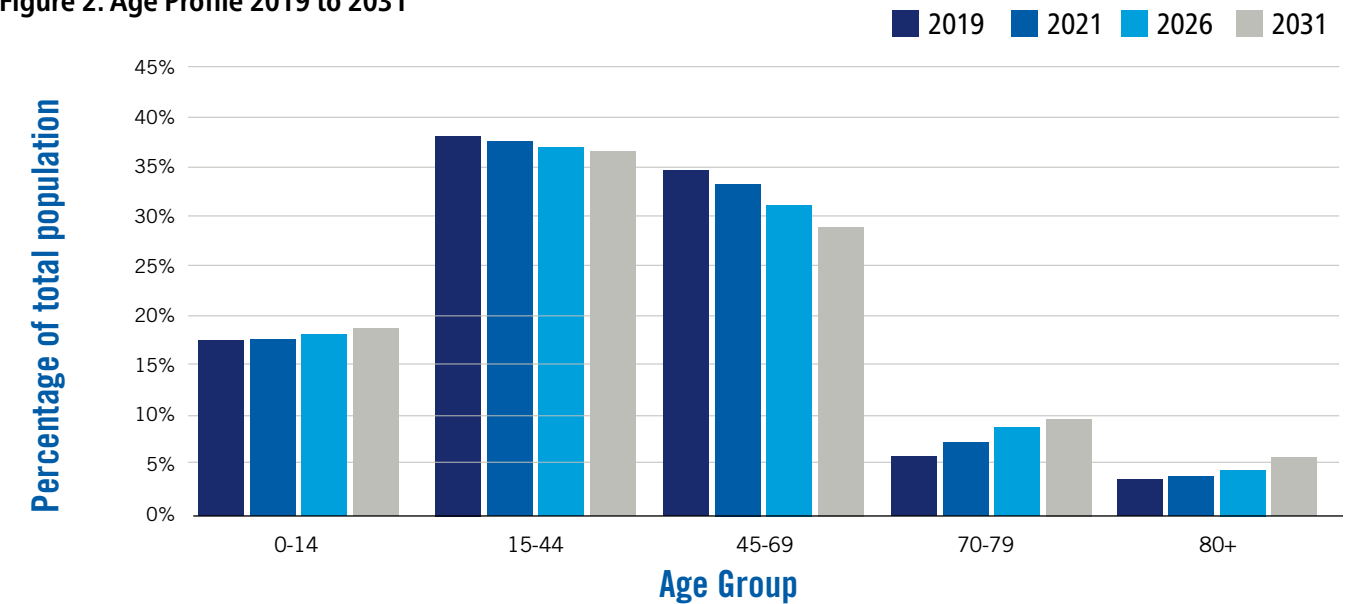
Source: York Region Long Range Planning and Data Analytics and Visualization Services

In addition to a growing population, the age structure of that population is changing. York Region’s seniors’ population is growing faster than any other age group. By 2051, close to one in four (23%) York Region residents will be over age 65. The most significant growth is expected amongst older seniors, those aged 75 and older. In 2021, older seniors accounted for 42% of the total seniors’ population and this is expected to increase to 62% by 2051. Many older seniors require higher levels of care, putting pressure on paramedic services. For example, in 2021, seniors over 75 years old were approximately twice as likely to be hospitalized and/or use paramedic services than adults aged 55 to 74 years old¹.

Figure 2 shows that the population of York Region is both increasing and aging. The proportion of people aged between 15 and 69 is projected to decrease over the forecast period, while the proportion aged over 70 is expected to increase.

1 York Region Paramedic and Seniors Services Survey conducted with seniors, December 2021 – January 2022

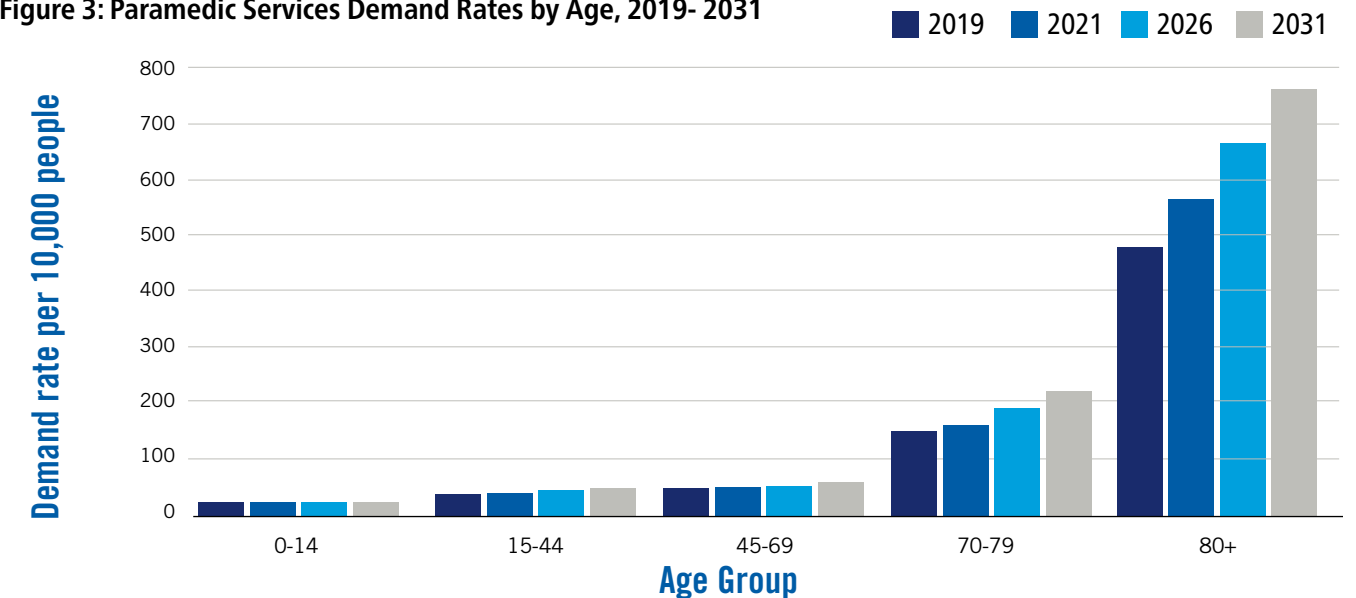
Figure 2: Age Profile 2019 to 2031



Source: Operational Research in Health Limited, Demand and Capacity Study, 2020

Moreover, Figure 3 shows that over the forecast period, the demand rate for paramedic services for those aged over 70 is expected to rise faster than other age groups, with a substantial increase for those aged over 80.

Figure 3: Paramedic Services Demand Rates by Age, 2019- 2031



Source: Operational Research in Health Limited, Demand and Capacity Study, 2020

Older seniors, however, are not the only age group where demand has been increasing. The demand rate (the number of incidents requiring a paramedic service response per 1000 people) for all age groups increased 17.3% between 2014 to 2019 compared to a 7.3% increase in population over the same period.



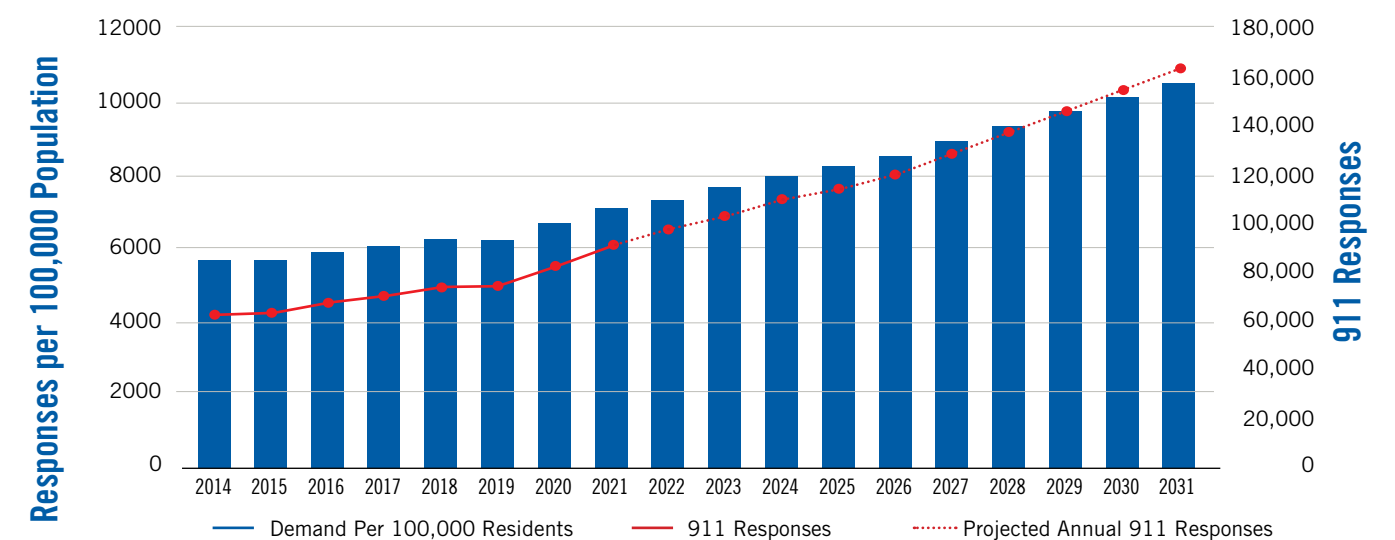
DEMAND PROJECTIONS

The demand projections to 2031 used for this Master Plan are based on historical demand rates, assessed by age, gender group and municipality, combined with population projections. Based on this data, demand is projected to increase by 6.8% per year to 2031 compared to a general population increase of 2.2% per year. In other words, while York Region’s population is forecasted to increase by 30.1% between 2019 to 2031, the number of incidents requiring a paramedic response is expected to increase by 119.2%.

Demand is expected to rise most sharply for residents over 75 years old. As shown in Figure 4, in 2021 paramedics responded to 91,625 incidents and in 2031 paramedics are forecasted to respond to 163,606 incidents, an average annual increase of 6.8%. Further, in terms of average daily incidents, in 2015, paramedics responded to 174 incidents per day compared to 211 incidents per day in 2019, with a projection of 450 incidents per day by 2031.

Because all local municipalities in York Region will see population growth (Figure 1), the demand rate for paramedic services will also increase across the Region, intensifying in existing areas and expanding into new development areas. Note, population projections will also be reviewed against actual population growth and forecasts in the Regional Official Plan to assess appropriate resource needs.

Figure 4: 911 Response Demand 2014 – 2031, York Region Paramedic Services



Source: York Region Long Range Planning and Data Analytics and Visualization Services

ALTERNATIVE SCENARIOS – IMPACT MODELLING

The Demand and Capacity Study identified future demand and resource requirements to 2031. To ensure the correct balance between response time performance and resources required, many response time scenarios were modelled to determine a response time that produced optimal response time performance, while ensuring the most efficient use of resources.

Balancing Response Times Region-wide

Balancing response times Region-wide means the performance standard can be achieved regardless of where the 911 call originates from. Equitable access to care continues to become more challenging as the Region’s population continues to grow and diversify, and 911 calls become more complex. Increasing urbanization is also contributing to response time challenges in terms of traffic congestion, responding in taller buildings, and building design.

The performance standard was determined through testing multiple response time scenarios as shown in Figure 5. Modeling considered the legislative framework for response times, demand factors, and optimizing the use of staff. It also considered what resources would be required to provide equitable and consistent response time performance in all local municipalities (balancing response times).

The methodology for assessing resource needs is based on a performance standard of a response time of eight minutes or less to Priority 4 incidents 70% of the time Region-wide and also in each of the local municipalities. The performance standard used in the previous plan, an 11 minute 29 second response 90% of the time, would not allow for adequate resources to meet current and projected demand rates, or to achieve balanced response times.

While scenarios analysed with lower response time targets would require less resource investment, they may also present risk to patient safety. The model presented in this report was chosen to reduce the risk of delayed responses to critical incidents and reputational harm.



Figure 5: Modelling of Response Time Scenarios

Criteria	Option 1 Region-wide 8 minutes or less 70% of the time and 70% in each local municipality (Recommended)	Option 2 Region-wide 70% of the time and a minimum of 65% in each Municipality	Option 3 Region-wide 75% of the time and a minimum of 70% in each Municipality	Option 4 Region-wide 75% of the time and a minimum of 65% in each Municipality	Option 5 Legislative maximum standard of 11:39 minutes and 39 seconds at the 90th percentile
Meets legislative framework for response times by maintaining current service levels (CTAS)					
Provides balanced response times Region-wide					
Optimizes use of full-time equivalent staff					
Adequately address 911 volume growth and provides system capacity					
Minimize reputational risk					
Aligned with industry best practices					

Source: Operational Research in Health Limited, Final Report, 2022

PROJECTED ADDITIONAL RESOURCE REQUIREMENTS UP TO 2031

Based on projected demand estimates and analysis, and in line with our performance target and planning criteria, the Master Plan identifies the following requirements in addition to the current level of resources (see page 8):

Paramedic Response Stations

Paramedic response stations must be located to ensure efficient response times, both under current conditions and with a view to future planned growth. All 31 current and planned stations were assessed and found to be well-located and are needed to maintain ambulance system capacity. Existing, planned and proposed stations are shown in Map 1 (see page 9).

One additional station will be required by 2025, to be located in South Keswick in the Town of Georgina to meet population growth in the area. This station was identified because the anticipated growth and demand in this area would significantly surpass the current ambulance garage capacity in the area.

Analysis shows the current planned and proposed stations are also well located with respect to service planning beyond 2031. Information about post 2031 initial planning and analysis is provided in Planning Beyond 2031 (see page 33).

Ambulance Resources

Between 2021 and 2031, an additional 50 ambulances will be required.

Forty of these ambulances are required to address the projected increase in service demand. Table 2 identifies the number of weekly hours of ambulance coverage that will be added to the associated local municipalities to improve ambulance coverage and meet 911 call demand. Table 2 also identifies the net new number of ambulances added to the system yearly to provide these additional weekly ambulance hours. The remaining ambulances are required as spares. Having spare capacity ensures that crews can remain in service at the same levels even when ambulances are in for maintenance or otherwise out of service. Two special response units and one logistics vehicle will also be required to meet future demand.

Table 1: Yearly Additional Ambulance Resources Required by Municipality

		Municipality Receiving Ambulance Resources	Net New Ambulance(s)
2022	336	<ul style="list-style-type: none"> • Town of Whitchurch-Stouffville • City of Markham • Township of King 	3
2023	420	<ul style="list-style-type: none"> • Town of Georgina • City of Markham • City of Vaughan 	3
2024	420	<ul style="list-style-type: none"> • Town of Whitchurch-Stouffville • City of Vaughan 	3
2025	420	<ul style="list-style-type: none"> • Town of Whitchurch-Stouffville • Town of Georgina • City of Richmond Hill • City of Vaughan 	4
2026	420	<ul style="list-style-type: none"> • Town of East Gwillimbury • Town of Georgina • City of Markham 	4
2027	336	<ul style="list-style-type: none"> • Town of Georgina • City of Vaughan 	2
2028	504	<ul style="list-style-type: none"> • Town of Aurora • City of Markham • Township of King 	6
2029	336	<ul style="list-style-type: none"> • Town of East Gwillimbury • Town of Newmarket • Town of Whitchurch-Stouffville 	2
2030	312	<ul style="list-style-type: none"> • Town of Georgina • Township of King 	6
2031	444	<ul style="list-style-type: none"> • Town of Newmarket • City of Markham • City of Vaughan • City of Richmond Hill 	7
Total			40

Source: Operational Research in Health Limited, Final Report, 2022

Note: Of the total 50 additional ambulances identified, 10 are spare ambulances



Paramedic Services Staffing Resources

To operate one ambulance for 24-hours, seven days a week, 12 paramedics are required. Similarly, to operate one ambulance for 12-hours, seven days a week, six paramedics are required to ensure adequate relief ratio.

An average staffing increase of 4.3% will be needed annually until 2031. This represents a total of 305 additional full-time equivalents in front-line paramedic staff and 39 full-time support positions by 2031, as noted in Figure 6.

The support positions provide important functions such as professional practice, scheduling and administration, as well as technology and human resources support positions that the previous Master Plan did not include, but are also key to maintaining a safe and effective Paramedic Service.

Figure 6: Paramedic Staffing Resources Identified to Meet Demand, 2023 to 2031

	2023	2024	2025	2026	2027	2028	2029	2030	2031
Full-time Front-Line Paramedics*	36	36	35	35	37	34	29	28	35
Support Staff	7	2	2	7	7	3	1	7	3
Total FTE	43	38	37	42	44	37	30	35	38
Estimated Net Operating Impact**	\$3.31 M	\$2.92 M	\$3.14 M	\$3.49 M	\$3.95 M	\$3.42 M	\$3.10 M	\$3.68 M	\$4.13 M
Weekly Ambulance Hour Coverage Increase	345	420	420	420	336	504	336	312	444

Note: Resources required in 2021 and 2022 have already been accounted for in those approved budgets.

Source: York Region Community and Health Services, Financial Services and Business Planning 2022

* Front-Line Paramedic Staff Includes logistics, Paramedic Superintendents, fleet and scheduling

** Assumes 50% funding through Land Ambulance Service grant for all incremental costs. Measure only of resources identified in the Master Plan. Does not account for base service (e.g., COLA on existing staff and inflation on existing materials/supplies)

Operating Budget Implications

Additional resources have been identified to support the projected increased call volume and ambulance hours, such as increased vehicle costs (fuel, maintenance), medical supplies and equipment. An additional \$62.3 million gross in operating funding will be required over the period 2023 to 2031, primarily for staffing as shown in Figure 6. Assuming the Province will continue to provide 50% land ambulance grant funding over that period, the next Regional property tax contribution would be approximately \$31.15 million (approximately \$3.46 million annually). To fund capital expenditures such as the new ambulances, special response units, logistics vehicles, equipment and stations, an additional \$27.2 million will be required over the period 2023 to 2031. As the province does not provide capital funding, capital costs will be funded through Regional property taxes. These additional capital and operating funding requests will be included in annual budget submissions to Regional Council.

Ambulance Hours

refers to one hour of ambulance service with two paramedics providing services in the community. For example, 168 hours of ambulance capacity equals one week of an ambulance in the community for 24 hours a day.

Relief Ratio

refers to the number of paramedics required to backfill when another paramedic is unavailable to work their scheduled shift due to a leave of absence (such as illness, injury, statutory leave, or vacation). The relief ratio used for the 2020 Demand and Capacity Study was 1.47 staff. This means that for every one paramedic required to meet demand, an additional 0.47 is included to maintain service levels and potential employee leaves of absence. Other frontline positions, such as scheduling, fleet and logistics are typically backfilled with casual staff trained in those areas.



RESOURCE OPTIMIZATION

Current Actions

Against a backdrop of steadily increasing demand, York Region has worked continuously since introduction of the last Master Plan in 2012 to streamline services and maximize efficiencies wherever possible. These initiatives were considered in the analysis for determining resource needs, and include:

- **Alternate Patient Transport Services:** Routine, non-emergency patient transfers from hospital were reduced by encouraging use of alternative patient transport services. Working in partnership with Regional hospital partners, since 2018 Paramedic Services has reduced non-emergency transfers within the system by an average of 22% per year. The result is improved availability of paramedic resources for emergencies.
- **Redeployment of Multi-Patient Unit:** The Multi-Patient Unit is a large capacity response unit with the capacity to treat and transport eight stretcher patients and 12 ambulatory patients. It was stationed at Headquarters in East Gwillimbury. Analysis showed it should be relocated to southern York Region where there is better access to the highway network and 911 calls. In 2021, the Multi-Patient Unit was redeployed to Station 26 in the City of Markham. Additionally, more paramedics were trained to use these vehicles. Placing this resource in a more optimal location and increasing the number of paramedics trained to drive it has led to improved availability of the Multi-Patient Unit and more frequent deployment.
- **Reallocation of Rapid Response Unit Resources:** Paramedic Services has nine Rapid Response Units. The Rapid Response Units are vehicles staffed with paramedics, but without all of the equipment of a regular ambulance. Their purpose is to augment ambulance responses in areas with higher call volumes by stabilizing patients until an ambulance can arrive. Each Rapid Response Unit requires two front line paramedics to maintain 12-hour, seven days a week of coverage. Upon review, it was determined that allocating these resources instead to regular ambulances would be more efficient with minimal impact to response times. As a result, in 2021 the Rapid Response Unit program was reduced from nine Rapid Response vehicles to one, permitting reallocation of 16 front line paramedics to two new 24-hour ambulances stationed in high demand areas. Transport capacity within the system has increased without needing to increase operating costs.

- **Transfer of Care:** Time spent at hospital by York Region Paramedic Services while transferring patients to York Region hospitals has reduced 32% since 2010 and has been consistently below the Province's 30-minute average target since 2014. York Region Paramedic Services and York Region hospitals outperform the Canadian average². This has in part been made possible through funding received through the [Council-approved Memorandum of Understanding](#) with the hospitals, which helped bring poor transfer of care times under control, the Provincial Dedicated Offload Nurse Program, which funds dedicated nurses in emergency departments to receive low-acuity patients brought by ambulance, and the ongoing collegial relationship between Paramedic Services and the hospitals to identify emergency issues and find solutions. In 2019, Provincial funding of \$1.2M for dedicated offload nurses saved an estimated 15,300 hours in ambulance time, improving service efficiency and a cost avoidance of approximately \$3.9 million.
- **Maximizing co-location opportunities:** Currently ten paramedic stations are co-located with fire stations, and one is co-located with York Region Police. This is important as the use of existing Regionally owned land, cooperatively purchased land or co-location with allied agencies creates efficiencies in land and building costs (such as the proposed station in Keswick South). To optimize resources, any future station builds will consider co-location opportunities with allied agency partners and/or Regionally owned lands.
- **Computer Aided Dispatch/Mobile Data Application:** York Region Paramedic Services partnered with the Ministry of Health in 2018 to develop and test a Computer-Aided Dispatch/Mobile Data Application. The system provides automatic information updates and real time data about 911 call information to paramedics. This has contributed to paramedics potentially reaching incident scenes sooner, reduced time on scene, and paramedics needing less time to document care reports.

System Innovations that Could Support Demand Mitigation but Require Provincial Support

Demand projections used in the analysis assume all incidents will require a York Region Paramedic Services ambulance to respond to the call and, in almost all cases, to transport the patient to a hospital.

However, there are opportunities that could allow us to make even better use of our resources by addressing and mitigating demand at the source. Many of these innovations require decisions and support at the Provincial level before they can be implemented at the Regional level and should be the focus of targeted advocacy efforts. Some significant opportunities are described below.

- 2 **Based on percent of ambulance time lost to hospital turnaround,** [2020 MBNCanada Performance Measurement Report](#)

New Models of Care

New Models of Care are innovative, Provincially legislated initiatives that enable paramedics to treat patients on scene (“Treat and Release”), transport patients to other destinations, and/or refer patients to another health care provider (“Treat and Refer”) thereby deferring the ambulance transport to hospital.

Provincial legislation requires that paramedics transport patients to hospital unless they expressly refuse, even if the paramedic’s clinical opinion is that the patient’s condition is stable and does not require a visit to the hospital emergency department.

Treat and Release refers to a model of care where patients are assessed and/or treated by paramedics on-site and choose not to be transported to hospital. In addition to avoiding unnecessary transport to the hospital, this model also provides the added benefit for patients to receive care in their home. Increasing Treat and Release rates reduces the amount of time ambulances are travelling to hospitals, and the amount of time crews must spend at hospitals. Time spent at the incident scene, however, increases.

Some examples of this model of care put in place by Paramedic Services include:

- The COVID-19 Medical Directive which began in April 2022, provided paramedics with guidance on how to identify low acuity COVID-19 symptom patients who could be assessed and released from paramedic care rather than be transported to hospital
- The Palliative Care Patients Receiving Care at Home Program which began in January 2022, enables paramedics to provide on-scene treatment within the home and refer patients to other health care providers (see page 27 for additional details)

In 21% of incidents, York Region paramedics respond to patients that have only minor injuries/illnesses and choose to seek further assistance on their own, rather than Paramedic transport to hospital. For Treat and Release to be even more effective, Provincial legislation is required that would permit paramedics to discharge patients on-scene after assessment and/or treatment.

To assess the potential savings impact of expanded Treat and Release and make a case to the Province for legislative changes, two scenarios were modeled. In scenario 1, paramedics were permitted to treat and release 29% of 911 call incidents, and in scenario 2, they were permitted to treat and release 36% of incidents. In both scenarios, even with increased time at the incident scene, the total time paramedics spent responding to incidents would decrease, allowing vehicles to become available more quickly. If paramedic services were permitted to treat and release patients, the resource needs detailed in this Master Plan could be reduced by 39.5 or 51.2 full-time equivalents respectively.

Time Spent at Hospital

Transfer of care times could increase as demand increases. If crews need to spend more time in hospital emergency departments waiting to transfer care of patients to the hospital, paramedic response times will decline. The more time paramedics spend waiting at hospitals, the more they are unavailable to respond to 911 service calls in the community. Inefficient use of ambulance and staffing resources increases costs.

Although transfer of care times has remained below the Province’s 30-minute average target in the Region, the risk of increases is high due to factors outside the Region’s control, such as hospital capacity and staffing. Ministry of Health funding for the Dedicated Offload Nurse Program has not kept pace with increasing demand and hospital staffing challenges. In [February 2022](#), Regional Council asked the Minister of Health to increase funding for the Dedicated Offload Nurse Program at York Region’s hospitals.

The transfer of care time used in the analysis was 49 minutes and 49 seconds, for 90% of the transports to hospitals. Three scenarios were modeled to assess the impact that increased time spent at the hospital could have on response times. Table 3 provides an overview of scenarios modelled demonstrating the potential impact of increased time at hospital at the 90th percentile on response times. For example, if paramedics spend 60% more time at hospital (80 minutes), response times across the system would increase by two minutes and six seconds at the 90th Percentile.

Table 3: Impacts of Increased Time at Hospital on Response times

	Time at Hospital in Minutes	Increase to Response Times Based on Time Spent at Hospital
20%	60 minutes	30 seconds
40%	70 minutes	1 minute, 12 seconds
60%	80 minutes	2 minutes, 6 seconds

Source: Operational Research in Health Limited, Final Report, 2022

Dispatch Modernization

911 calls for paramedic service in York Region go to the Provincially-run Georgian Central Ambulance Communications Centre. The dispatcher determines how quickly a response is needed based on how the 911 caller answers the dispatcher's questions.

As the information gathered by dispatch staff is limited, calls have tended to be over prioritized to limit risk to the patient. Currently over 76% of 911 responses are dispatched as lights and siren responses, where less than 10% require lights and sirens transport to hospital, and less than 1% are truly critically ill patients. When calls are over prioritized, it causes overuse of paramedic resources who are then unavailable to respond to true emergencies, leading to risks to public safety and contributing to inefficient use of resources.

The Province is working to implement the Medical Priority Dispatch System, a modern medical triage algorithm system, to enable better differentiation and triage of emergencies and ensure patients in need of the most urgent care receive it in the appropriate time frame with the resources available. Ontario's Medical Priority Dispatch System, once in place, will help paramedics respond more efficiently by triaging calls to determine the appropriate level and speed of response required.

For York Region Paramedic Services, dispatch modernization could reduce the number of lights and sirens responses to approximately 40% based on the experiences of other jurisdictions.

Implementation of the Medical Priority Dispatch System at Georgian Central Ambulance Communication Centre was planned for spring 2019. It has been delayed due to the COVID-19 pandemic, however implementation is expected in second quarter of 2023.

Call Diversion

Additionally, a more precise dispatch system, when staffed by clinicians, can divert calls where appropriate to another health resource ('hear and treat') instead of requiring an ambulance to respond. Call Diversion aligns with dispatch modernization because it is meant to reduce or divert non-emergency responses.

Call Diversion can also support frequent caller initiatives, identifying individuals or locations that call 911 frequently to understand the underlying cause of the issue and potentially employ preventative alternatives. There are jurisdictions such as Niagara Region where Call Diversion is used. This model is currently under evaluation by Niagara Region and results are expected later in 2022.

However, Call Diversion requires investment and legislative changes by the Ministry of Health. To support a case for advocacy to the Province, three levels of Call Diversion were modelled, with a projected 3%, 6% or 8% of calls being diverted away from using paramedic services. Under these scenarios, if Call Diversion was implemented by the Province, the resources detailed in this Master Plan could be reduced by 23.5 to 39.5 full-time equivalent staff (or -3% to -5.1%).

Palliative Care

Due to limited access to home and primary care in the community, a growing number of residents rely on the 911 system for conditions that could be treated more effectively through primary or community care. Improved access to care is needed, particularly for palliative and end of life care.

In 2020, York Region Paramedic Services was approved by the Ministry of Health to deliver a new palliative care service. Eligible patients receiving palliative care who call 911 have the option to be treated on-scene for pain and symptom management by trained paramedics. All paramedics are trained in the principles of palliative care and community resources.

This program, fully funded through a research grant, was implemented in January 2022 and is already helping to reduce paramedic transports to Emergency Departments when appropriate. To date paramedics have responded to approximately 10 calls; outcome data is being collected and will be analyzed for impacts.

Using scenarios evaluated in the Master Plan, these new models of care, once permitted and funded by the Province, may enhance resource savings opportunities and efficiencies in the future.

New Fleet Technologies

Paramedic Services is working with Public Works to advance long-term energy and green-house gas emission reductions in its fleet, including investigating opportunities to pilot electric ambulances, in support of the Region's [Energy Conservation Demand Management Plan](#).

Currently the Service operates 16 hybrid ambulances which have reduced greenhouse gas emissions by 140 tonnes, reduced fuel consumption by 58,577 litres of gasoline and saved \$15,000 on brake replacement since 2017. Further, every ambulance is equipped with anti-idle technologies that have reduced engine hour idle time by 92,824 hours, reduced fuel consumption by 338,692 litres of gasoline and reduced greenhouse gas emissions by 858 tonnes.

In addition to reductions in green-house gas emissions, use of electric ambulances could result in significant savings of approximately \$124,724 per electric ambulance over its 10-year lifecycle. With 74 ambulances currently, and 50 more to be added by 2031, ultimately average annual cost avoidance could be in the range of \$1.5 million annually.

Capital costs could be managed by accessing the various government funding opportunities and incentives currently available. Further analysis will be conducted to assess the full cost implications related to electric ambulances and the related infrastructure to maintain them (such as charging stations and batteries).



Community Paramedicine

Community Paramedicine has an important role in supporting more efficient emergency operations by providing clinical support to patients in their homes. Proactive, non-emergency services help keep residents living well and improve their quality of life, while reducing pressure on the health care system and providing service levels appropriate to need.

In addition, through proactive approaches the number of individuals making frequent calls to the 911 system is reduced, reducing overuse of the emergency paramedic system and improving its efficiency. A recent McMaster study found an overall decrease in 911 calls by 19% in multiple communities in Ontario where community paramedicine programs were implemented.³ From 2020 to 2021, the York Region Paramedic Services' CP@Clinic reduced 911 calls at one of the participating seniors housing locations by 17 calls (15%). For every 911 call prevented, an ambulance is available to respond to another emergency in the community. Further savings are realized by the Ministry of Health funded acute and primary care systems.

3 Prehospital Emergency Care, [Reducing 911 Emergency Medical Service Calls By Implementing A Community Paramedicine Program for Vulnerable Older Adults in Public Housing In Canada: A Multi-Site Cluster Randomized Controlled Trial](#), Agarwal et al., February 2019

York Region Paramedic services currently provides the following Community Paramedic programs:

	Description	Results (Estimate of 911 Calls Diverted)
CP@Clinic/ CP@Home	This is an evidence-based collaborative program conducted in partnership with McMaster University where Community Paramedics provide programs in seniors' housing buildings and in clients' homes	<ul style="list-style-type: none"> Between January 3, 2021 and January 3, 2022, 798 frequent callers to 911 (465 or 58% of these were seniors) were supported through these programs While this program is designed for health promotion and prevention, connection to service providers and system navigation, this model has shown decreased reliance on emergency system supports for participating clients
Emergency and Transitional Housing Program	In response to the COVID-19 Pandemic, this program provides regular clinic hours at emergency housing (homeless shelter) locations and/or homeless drop-in centers across York Region where paramedics provide clients with primary health assessments, health coaching and education, health care system navigation, influenza vaccination and human service referrals where appropriate	<ul style="list-style-type: none"> In 2021, 280 clients were provided physician based, primary care and/or substance use support. Due to the lack of accessible healthcare for this population, it can be assumed that each client interaction within this program may have resulted in a 911 call Approximately 280 calls were diverted, a value of approximately \$78,680 saved to Paramedic Services and \$163,800⁴ to the healthcare system in terms of reduced costs for ambulance resources and a visit to the emergency department
Community Paramedicine for Long-Term Care	Supports people who are currently on the long-term care waitlist, as well as individuals who are eligible or soon to be eligible for placement on the long-term care waitlist, to remain safe and stable in their own homes as part of the Province's plan to address systemic barriers in long-term care bed development and the growing demand for long-term care	<ul style="list-style-type: none"> Since October 2021, Community Paramedics provided in-home or virtual supports for 246 individuals

Many of York Region's Community Paramedicine programs are pilot projects aimed at filling gaps in primary care and in home and community care, without a long-term Provincial policy or funding framework. The success of community paramedicine programs requires legal clarity and sustainable, long-term funding commitments by the Province.

Council's advocacy to the Province for sustainable funding of Community Paramedicine programs is important to establishing a community paramedicine model that is sustainable for the future.

4 [2020 MBNCanada Performance Measurement Report](#)

Strengthening the Role of Paramedics in the Health Care System

Although emergency paramedics operate as an extension of hospital emergency departments and community paramedics extend the primary care system into people's homes, paramedic services have traditionally not been treated as part of the health care system in Ontario. For example, since paramedics are not a regulated health care profession, once they complete care, they cannot receive information from the hospital regarding a patient's condition or outcome data useful to improving the quality of care.

Sector leaders across Canada continue to advocate for paramedics to become a permanent component of the health care system in Ontario, including primary care. The following three policy frameworks have been recently developed to advocate for a better integration of paramedics in the health care system:

- [Principles to Guide the Future of Paramedicine in Canada](#), commissioned by the Paramedic Chiefs of Canada and supported by York Region Paramedic Services, this study establishes guiding principles to shape paramedicine in Canada. It recommends that governments prioritize patients and their communities, provide health care along a health and social continuum, practice within an integrated health care framework, and enact legislation that provides professional autonomy.
- [Community Paramedic Policy Framework](#), jointly developed by the Ontario Association of Paramedic Chiefs and the Association of Municipalities of Ontario and submitted to the Minister of Health and Minister of Long-Term Care, recommends to the Provincial Government that paramedic skills be maximized to be able to provide both emergency and primary care.
- [Policy Framework on the Future of Paramedicine in Ontario: Charting a New Course for Paramedic Services to do More for Healthcare](#), developed by the Ontario Association of Paramedic Chiefs, recommends that the Provincial Government include paramedics in the *Regulated Health Professions Act, 1991* and create a regulatory college, strengthen dispatch, and expand community paramedicine.

As outlined in the Council approved [York Region Response to the Emergency Health Services Modernization Discussion Paper](#), York Region is aligned with these sector leaders and their recommendations to effectively advance the role of paramedics as set out in their respective frameworks described above.

Partnerships

Partnerships with health and social service providers also contribute towards service efficiencies by permitting Paramedic Services to influence program development and delivery of local health care needs in the community. For example, Paramedic Services has established strong partnerships with York Region's local hospitals, community planning tables, and Ontario Health Teams. Collaborations with hospitals have contributed to reduced transfer of care times, and partnerships with local health service providers have resulted in local services that specifically target unmet community health needs, helping to reduce transfers to emergency departments.

Through collaboration, paramedics will continue to help improve coordination and service alignment for processes such as referrals and care delivery to enhance the patient care experience. Referrals directly connect residents and caregivers to health and social services and reduce reliance on emergency departments for assistance. Paramedic assessment and referral programs have been found to increase local home care and community service use up to 60%.⁵ In 2021, York Region Paramedic Services' Paramedics Referral Program served 1,465 patients and resulted in 2,173 referrals to community partners.

Further, partnerships with York Region Public Health are helping to support harm reduction and address opioid addiction related incidents in the community. Since February 2021, paramedics have distributed 177 Take-Home Naloxone Kits to patients and their family or friends. This program is helping to reduce accidental opioid related deaths (80% of which occurred in private residences in York Region in 2020) by providing naloxone kits and education on overdose prevention and response to individuals in need.

⁵ [Report on the Status of Community Paramedicine in Ontario](#), Leyenaar et al., 2019

RISKS OF NOT INCREASING RESOURCES

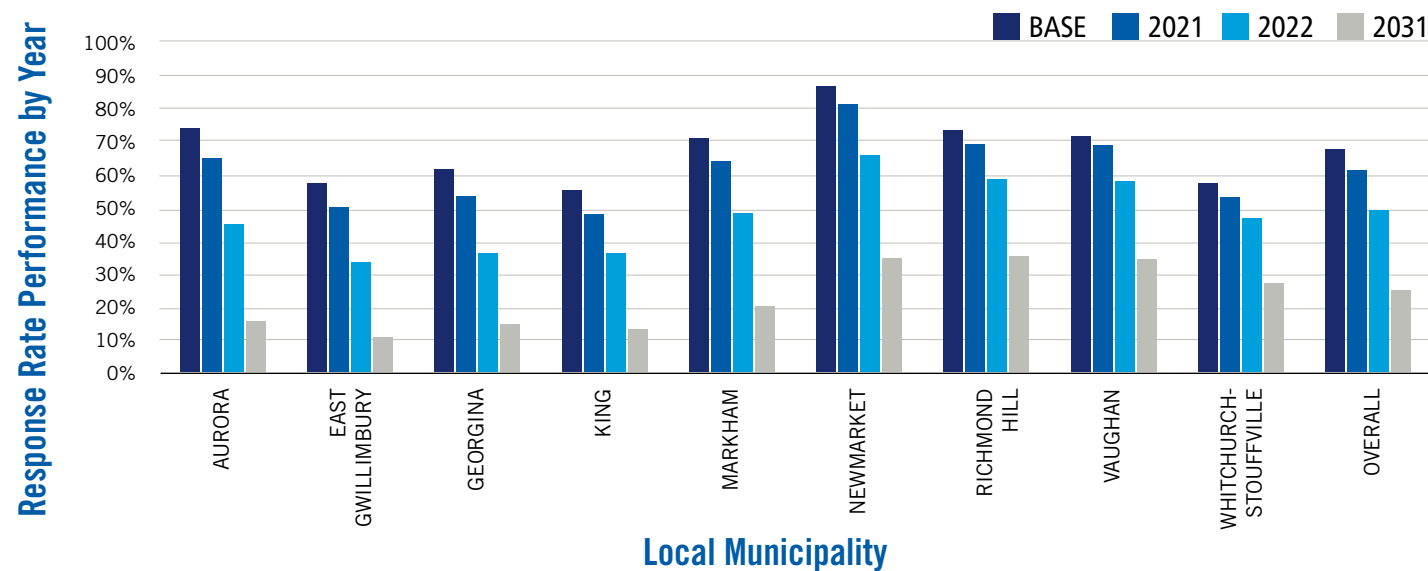
York Region Paramedic Services provides an essential service to all residents of the region, wherever they may reside, at times of great need and stress. Over 80% of residents across the region rate themselves as satisfied with the services York Region Paramedic Services provides.⁶ Maintaining this level of trust and confidence requires consistently meeting the standards set by the Region and the Province. This in turn requires having the right numbers of well-trained people, backed up by reliable equipment, located in the right places to serve communities across the region most efficiently.

Equitable response is key to the trust residents place in York Region Paramedic Services. A growing and aging population brings challenges. Over the next decade, York Region Paramedic Services will have to serve new developments and operate in more densely populated areas. The time to respond to incidents in mid- to high-rise housing will increase (due to greater vertical distance, multiple floors, overall building design, and traffic congestion). Certain kinds of incidents, especially those correlated with aging, will become more frequent.

As part of the modelling analysis, a 'Do Nothing' scenario was included which clearly details the impact of demand if there are no corresponding changes in resources to match. If no resources are added by 2031, only 25% of 911 calls for Priority 4 life threatening conditions would receive a response in eight-minutes or less, meaning patients experiencing cardiac arrest or life-threatening emergencies would have to wait longer. In addition to impacts on the patient, such a response rate would fail to meet current legislated and Council approved response time targets.

As shown in Figure 7, the modelling analysis indicated that while all local municipalities would see a decline in response rate performance in a "Do Nothing" scenario, the impact would be greater on rural communities, as their population increase is expected to be proportionately greater over the same period. In other words, in addition to falling unacceptably below mandated standards across the board, inequality in response times among local municipalities would worsen.

Figure 7: "Do Nothing Scenario", Response Time Performance to Life Threatening Calls in 8-minutes or less



Source: Operational Research in Health Limited, Demand and Capacity Study, 2020

6 York Region 2021 Annual Community Opinion Report

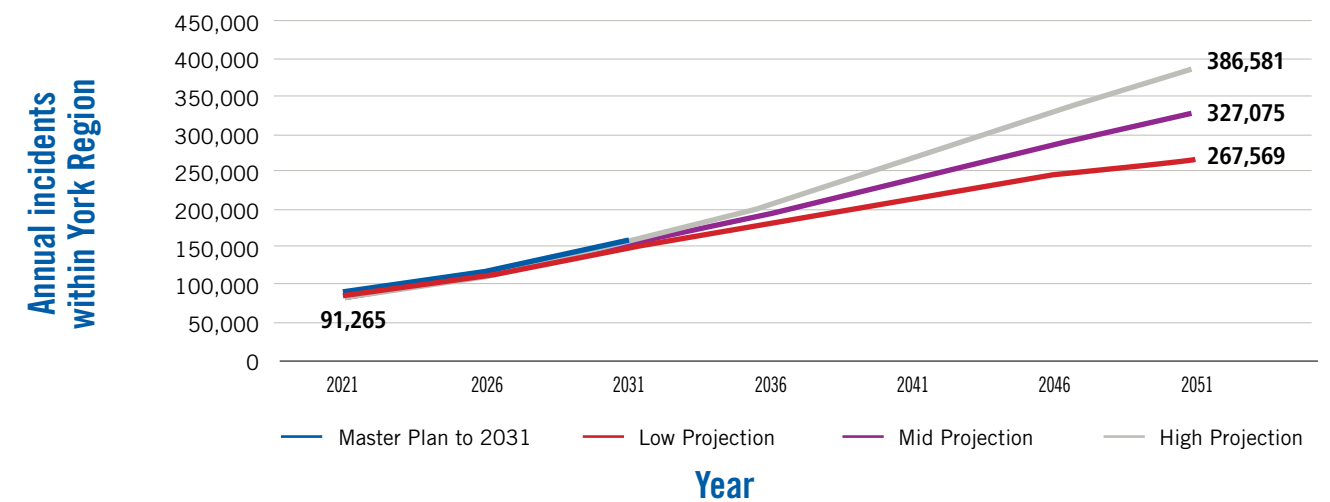


PLANNING BEYOND 2031

Demand Projections Beyond 2031

Looking beyond the period covered by this Master Plan, Figure 8 below provides modelling projections of 911 call demand up to 2051. With steadily increasing 911 demand over the next 20 years, the resources identified in this new Master Plan will also be necessary to set the Service up for the future and will need to be evaluated later in this decade to ensure we have sufficient resources beyond 2031. This future expansion in the Region signals the need for continued planning for capital and staffing resources to prepare for the expected growth beyond this Plan.

Figure 8: 911 Demand Projections 2019-2051, York Region Paramedic Services



Source: Operational Research in Health Limited, Demand Projections, 2022

The hub-station model is where paramedics report to a larger central station and are then deployed to a network of existing satellite stations. Hub stations in the community have been used by some services to build station capacity .

Paramedic Stations Beyond 2031

Additionally, beyond 2031 and to maintain the appropriate number of ambulances available within the community, Paramedic Services is evaluating the benefits of a dynamic hub station model to support future growth. Appendix 1, Paramedic Station Heat Maps, shows that the intensification of demand in 2021 continues through to 2051. The Heat Maps are a modeling approach that demonstrate that this future hub station strategy may align well with the Service's existing stations as the existing stations are appropriately placed to meet 911 response demand and shows how demand projections correspond with future station plans. Maps 2021, 2031 and 2051 in Appendix 1 provide an overview of current, planned and proposed stations in relation to incident demand projections. For example, both Map 2031 and Map 2051 show how demand projections in high-density areas correspond with future station plans. As station capacity in the high-density areas is reached, a hub station location could be used to store, equip and deploy ambulances to the high demand areas. Therefore, the hub station model could allow for improved efficiency and deployment into the system for a growing workforce as demand continues to increase.

CONCLUSION

York Region Paramedic Services provides life-saving care to more than 1.2 million residents living across the Region, from dense urban areas to rural communities. Residents place great trust in York Region Paramedic Services to deliver the services they need, often in stressful and uncertain situations.

While Paramedic Services currently meets the response time targets set by the Region and the Province, much of this success relies on having the right people and equipment in the right locations. It is important that the Service continues to evolve to meet the requirements of a rapidly growing population that is also getting older and needs greater support. Moreover, the role of the York Region Paramedic Services will also evolve, as paramedics become more integrated into the health care system, offering improved health care access in the community to address unmet needs or gaps in primary care.

In building this updated Master Plan, alternative scenarios were considered to optimize response performance and to ensure Paramedic Services can efficiently maintain quality service in the community and public confidence in emergency services. This Master Plan identified additional resource requirements of approximately \$3.46 million net in incremental operating expenses annually (total \$31.15 million). Further, capital expenditures in the amount of \$27.2 million have been identified to fund the additional stations, ambulances, special response units and a logistics vehicle. This level of resources would provide a solid foundation for proactive and effective resourcing to respond to the unique and evolving needs and build on the strengths of York Region's diverse and thriving communities to 2031.

Actions that would optimize resources and could mitigate costs were modeled. Significant cost savings are possible, however, implementation of these actions requires leadership and investment by the Province.

Looking ahead, the updated Master Plan provides an implementation pathway that leverages proven data to understand resource requirements to service population demand to 2051 in all nine local municipalities.

Since the inception of York Region Paramedic Services in 2000, Regional Council support has been instrumental in building a Service that has been able to grow, adapt and stay viable to the changing needs and demands of the Region's residents.





APPENDICES

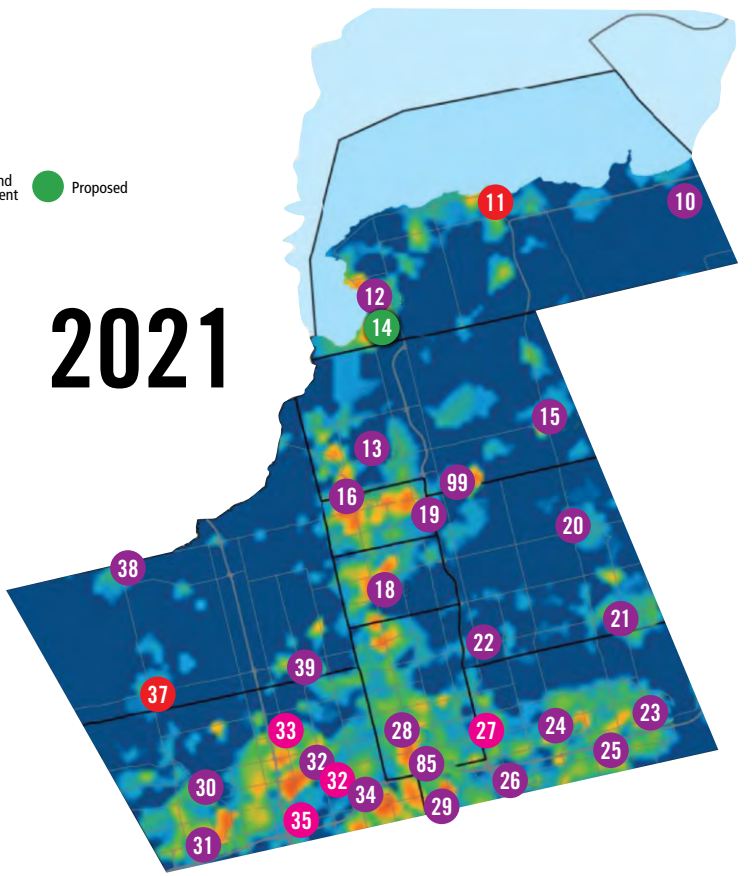
Appendix 1: Paramedic Station Heat Maps

DEMAND
 Lowest Highest

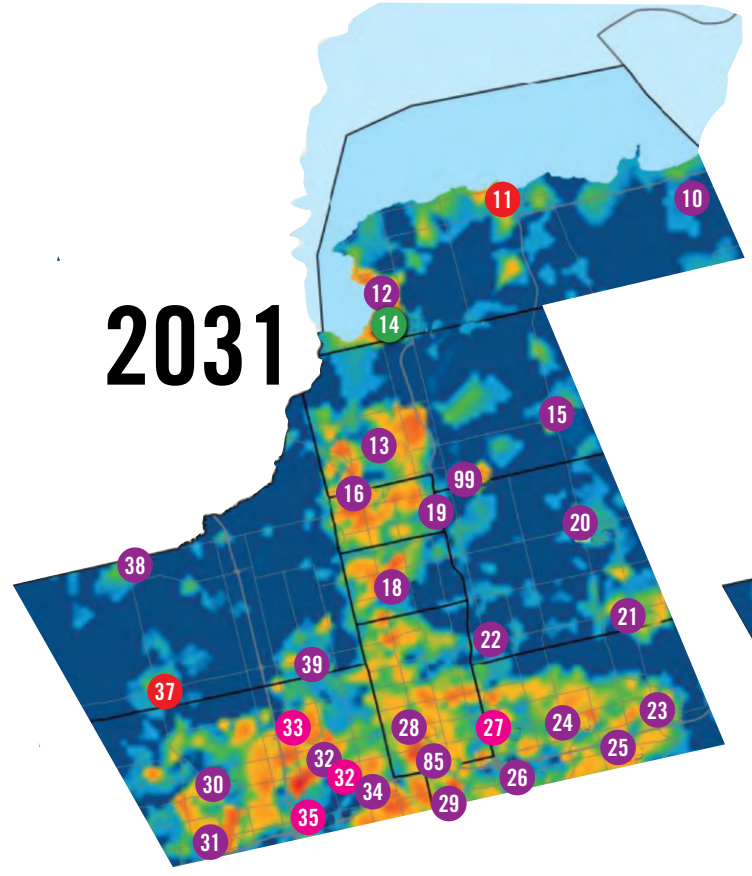
STATIONS Existing Planned Growth and Replacement Proposed

LEGEND Highways LTM Waterways

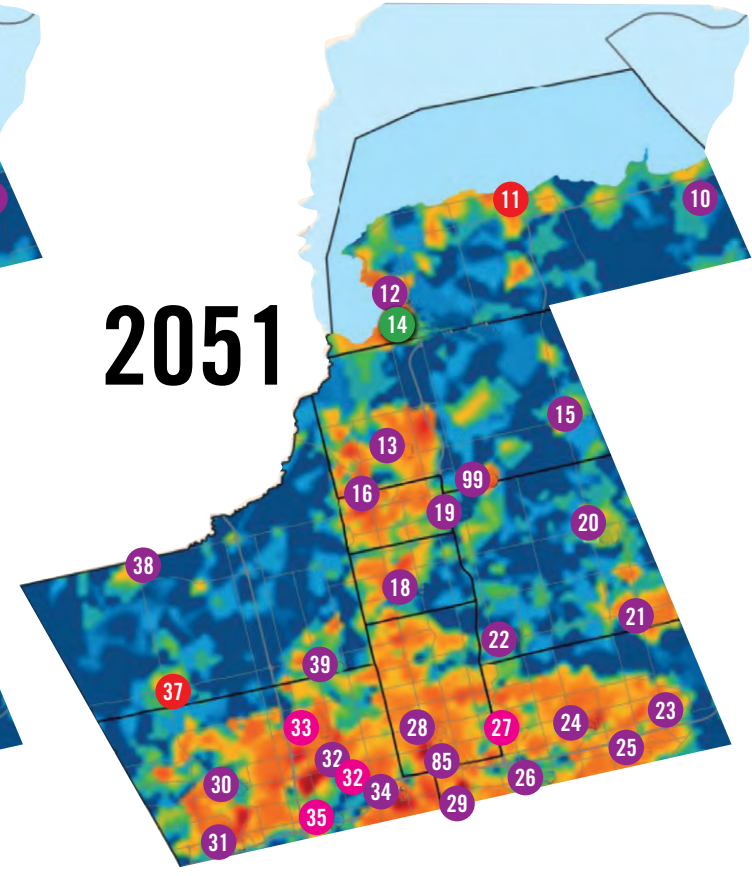
2021



2031



2051





york.ca/paramedics
@YorkParamedics

Good afternoon,

Attached is the Notice of Adoption for the York Region 2022 Official Plan.

The Official Plan describes how the Region plans to accommodate future growth and development and includes policies to build complete communities, promote affordable housing, set growth targets, delineate employment lands and protect natural and agricultural systems.

The Regional Official Plan has been sent to the Province of Ontario's Ministry of Municipal Affairs and Housing for approval. When the Regional Official Plan is approved by the Province, the 2022 Plan will replace the existing 2010 Regional Official Plan.

York Region thanks the public, local municipalities, Indigenous communities and stakeholders for their participation in developing the York Region 2022 Official Plan.

A consolidated York Region 2022 Official Plan that reflects Regional Council's June 30, 2022 decision will be available at york.ca/haveyoursay in the near future.

For additional information about the York Region 2022 Official Plan, please contact futureyork@york.ca

Accessible formats or communication supports are available upon request.

Thank you,

York Region Long Range Planning

Notice of Adoption of an Official Plan

THE REGIONAL MUNICIPALITY of YORK

In accordance with Section 17 (22) and 26 of the *Planning Act, R.S.O 1990, C.P.13*, the Council of the Regional Municipality of York passed [By-law No. 2022-40](#), adopting the York Region 2022 Official Plan, on June 30, 2022. This Notice of Adoption is issued pursuant to Section 17(23) of the *Planning Act*.

PURPOSE and EFFECT of this Adoption:

The York Region 2022 Official Plan includes policy and mapping updates required to conform to provincial plans. The Official Plan describes how the Region plans to accommodate future growth and development while meeting the needs of existing residents and businesses in the Region. The Plan includes policies to build complete communities, promote affordable housing, set growth targets, delineate employment lands and protect natural and agricultural systems. A series of background and direction reports presented to York Regional Council throughout the Municipal Comprehensive Review process supported development of the draft Plan in November 2021. Since November, staff actively engaged with the public, local municipalities, Indigenous communities, and stakeholders to develop the York Region 2022 Official Plan.

The York Region 2022 Official Plan can be viewed at york.ca/haveyoursay as further modified by Council on [June 30, 2022](#).

Effect of Written and Oral Submissions on the Decision: The Region received written and oral submissions regarding the draft Regional Official Plan. All written and oral submissions received on the draft Official Plan were considered in making the decision. A number of submissions led to revisions to the draft of the Official Plan. Additionally, detailed responses to submissions regarding the draft Official Plan were included in the reports dated [June 16, 2022](#) and [June 30, 2022](#) which were presented to Council, prior to the adoption of the Official Plan.

For additional information: Information about this Official Plan Adoption is available for inspection electronically upon request. To make a request or for any inquiries, please contact Sandra Malcic, Director, Long Range Planning, at 1-877-464-9675, extension 75274 or sandra.malcic@york.ca

When the decision will become final: The Minister of Municipal Affairs and Housing is the approval authority for this proposed plan adoption. Any person or public body will be entitled to receive notice of the decision of the approval authority if a written request to be notified of the decision is made to the approval authority. Please address your request to:

Mr. Sean Fraser
Regional Director (Acting)
Ministry of Municipal Affairs and Housing
Municipal Services Office – Central Ontario
777 Bay St, 13th Floor
Toronto, ON, M7A 2J3

Dated: July 8, 2022
c.c. Regional Clerk, Regional Clerk's Office, Corporate Services Department





Office of the Warden, C.A.O. & Clerk
Hastings County

235 Pinnacle St. Postal Bag 4400, Belleville ON
K8N 3A9

Tel: (613) 966-1311
Fax: (613) 966-2574
www.hastingscounty.com

July 4, 2022

The Honourable Doug Ford
Premier of Ontario
Minister of Intergovernmental Affairs
Premier's Office
Room 281
Legislative Building, Queen's Park
Toronto, ON M7A 1A1

VIA email: doug.fordco@pc.ola.org

Dear Premier Ford:

Re: Hastings County Council – June 30, 2022 – Expanding Amber Alert System

Please be advised that the Council of the County of Hastings, at its regular meeting held June 30, 2022, passed the following resolution:

Moved by: Councillor Tom Deline
Seconded by: Councillor Loyde Blackburn

WHEREAS we have all become aware of the recent tragic death of Draven Graham, and 11 year old child on the autistic spectrum, after walking away from the family home;

WHEREAS the Amber Alert has been very effective in announcing to the public, children who have been abducted and;

WHEREAS a similar alert program for those who have special needs who leave family custody would seem to be warranted in the Province of Ontario;

BE IT RESOLVED THAT the County of Hastings request the Province of Ontario to develop and implement a community warning program similar to Amber Alert for those persons of special needs or circumstances who leave the caregivers or locations and potentially put themselves at risk;

AND THAT copies of this resolution be forwarded to Premier Ford, the leaders of the Opposition Parties in Ontario, the District School Boards, all Hastings County Municipalities, and the local Ontario Provincial Police Service to ask them to support the resolution.

Carried

I trust you will find this in order; however should you have any questions or concerns, please do not hesitate to contact me at 613-966-1311, ext. 3205 or via email at bradleyc@hastingscounty.com.

Yours Truly,

A handwritten signature in black ink that reads "Cathy Monzon-Bradley". The signature is written in a cursive, flowing style.

Cathy Monzon-Bradley
County Clerk

Copy: The Honourable Stephen Lecce, Minister of Education to all Ontario School Boards
Mr. Peter Tabuns, Interim Leader NDP - Leader of Official Opposition
Mr. Steven Del Duca, Leader of the Liberal Party
All Ontario Municipalities
Ontario Provincial Police Local Detachments - Centre Hastings and Bancroft
Hastings County Member Municipalities

535
The Corporation of the
MUNICIPALITY OF TWEED

255 Metcalf St., Postal Bag 729
Tweed, ON K0K 3J0
Tel.: (613) 478-2535
Fax: (613) 478-6457



Email: info@tweed.ca
Website: www.tweed.ca
facebook.com/tweedontario

July 4, 2022

Ministry of Agriculture, Food and Rural Affairs
1 Stone Road West
Guelph, ON N1G 4Y2

Dear Minister:

Re: Ontario Wildlife Damage Compensation Program

We are writing to you today on behalf of our municipality regarding the administration fees related to wildlife damage claims. This program is necessary to protect our farm producers from the devastating losses incurred when they lose livestock to predators.

At the June 28, 2022 Regular Council Meeting the attached Resolution was passed by Council.

Our Council's concern is the administration fee paid to municipalities to administer the program on the Ministry's behalf which was recently increased from \$30.00 per claim to \$50.00 per claim.

We have recently contracted for a new Livestock Investigator resulting in the following costs directly related to wildlife claims:

Hourly Rate: \$25.00/hour
Mileage Rate: .50/km

On the most recent invoice for this service there were three wildlife claims with costs as follows:

1. April 28, 2022 – 3 hours + mileage = \$95.00
2. May 5, 2022 – 2.5 hours + mileage = \$75.00
3. May 8, 2022 – 3.5 hours + mileage = \$120.00

There is also time spent by municipal staff in preparing the wildlife claims for submission and monitoring the claims for payment to the livestock owner.

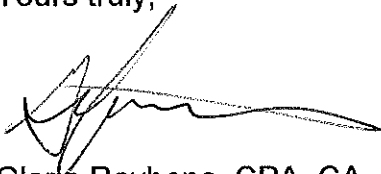
This results in a loss on each wildlife claim for our taxpayers to bear to be able to provide this necessary service to our farm producers.

Ministry of Agriculture, Food and Rural Affairs
Page 2
July 4, 2022

We respectfully request that the Ministry consider increasing the administration fee on wildlife claims to help offset the increasing costs associated with Livestock Investigation.

We look forward to hearing from you about this matter at your earliest convenience.

Yours truly,

A handwritten signature in black ink, appearing to read 'Gloria Raybone', with a long horizontal flourish extending to the right.

Gloria Raybone, CPA, CA
CAO/Treasurer

Encl.

cc. Association of Municipalities of Ontario
Ontario Municipalities

Municipality of Tweed Council Meeting
Council Meeting**Resolution No.**

442.

Title:

Ministry of Agriculture, Food and Rural Affairs

Date:

Tuesday, June 28, 2022

Moved by

Brian Treanor

Seconded by

Jacob Palmateer

WHEREAS the Ontario Ministry of Agriculture, Food and Rural Affairs administers the Ontario Wildlife Damage Compensation Program to provide compensation to farm producers for livestock killed by wildlife;

AND WHEREAS Ontario Municipalities administer the Program on behalf of OMAFRA by appointing a Livestock Investigator and staff to work on wildlife damage claims;

AND WHEREAS the costs associated with wildlife damage claims typically exceed the administration fee of \$50.00 per claim as provided to the Municipality by OMAFRA;

NOW THEREFORE BE IT RESOLVED THAT the Council of the Municipality of Tweed request the Ministry of Agriculture, Food and Rural Affairs to review the administration fee provided to

Municipalities for the administration of the Ontario Wildlife Damage Compensation Program:

AND FURTHER, that this Resolution be circulated to the Association of Municipalities of Ontario (AMO) and all Ontario Municipalities for their consideration and support.

Carried_____
Mayor

Handwritten signature of J. Albert in cursive script.

And Further That should the current moratorium on accommodation reviews and school closures be lifted, we ask that the moratorium remain in place for schools that qualify for the RNEF until a thorough review of the education funding formula is completed;

And Further That before templates required by the 2018 Pupil Accommodation Review Guide (PARG) are developed, there be consultation with school boards and community groups including the Community Schools Alliance.

And Further That a copy of this resolution be forwarded to Ontario municipalities, Community Schools Alliance, local MP's and MPP's and the Premier of Ontario.

Carried

I trust you will find this in order; however should you have any questions or concerns, please do not hesitate to contact me at 613-548-9400, ext. 302 or via email at jamini@frontenacounty.ca.

Yours Truly,



Jannette Amini, Dipl.M.M., M.A. CMO
Manager of Legislative Services/Clerk

Copy: Community Schools Alliance
Mark Gerretsen, MP, Kingston and the Islands: mark.gerretsen@parl.gc.ca
Scott Reid, MP, Lanark-Frontenac-Kingston: scott.reid@parl.gc.ca
Ted Hsu, MPP, Kingston and the Islands: tedhsu.mpp.co@ola.org
John Jordan, MPP, Lanark-Frontenac-Kingston: info@johnjordanlfk.com
Ontario Municipalities

**MISSISSAUGA**

RESOLUTION 0144-2022
adopted by the Council of
The Corporation of the City of Mississauga
at its meeting on July 6, 2022

0144-2022

Moved by: P. Mullin

Seconded by: C. Parrish

Whereas the Ontario AMBER Alert is a warning system that quickly alerts the public of a suspected abduction of children who are in imminent danger;

Whereas the goal is to broadcast as much information about the child, the abductor and suspect vehicles as quickly as possible so the public can respond with any relevant information that might lead to the child's safe return;

Whereas people are encouraged to share the AMBER Alert with as many people as possible. If a child or vulnerable person is abducted, spreading the information quickly is critical to their safe return;

Whereas an AMBER Alert makes the public aware to keep an eye out for the child, vulnerable person, suspect and the vehicle described in the alert. If they spot them, try to gather as many details as they can, including the specific location where they saw them, the time, the direction they were travelling in and any other identifying details that will help to locate them;

Whereas an AMBER Alert gives citizen's instructions to call 9-1-1 or the phone number included in the alert immediately if they have a tip or a sighting related to an AMBER Alert.

Whereas an AMBER Alert will only be activated if the police have confirmed that an abduction has taken place; and the victim is a child or a person of proven physical or mental disability; and, there is reason to believe the victim is in danger of serious physical injury, and there is information available that, if broadcast to the public, could assist in the safe recovery of the victim.

Whereas it is essential to remember that an AMBER Alert is not always appropriate in every circumstance and that their continued effectiveness depends on ensuring that they are only used in cases that meet the above criteria;

Whereas the recent tragic death of 11-year-old Draven Graham showed that the AMBER Alert system is flawed when it comes to vulnerable children who can go missing but are not abducted;

And whereas it is clear that there needs to be an addition to the alert system to allow for law enforcement to send out an alert for vulnerable children who go missing under circumstances that do not involve an abduction but are at serious risk of injury or death;

Therefore be it resolved that the Council of the City of Mississauga endorse the following;

1. That the Minister of the Solicitor General and the Commissioner of the Ontario Provincial Police, as well as the Premier's Office, be requested to make the necessary changes to the AMBER alert system and create a new alert called the Draven Alert, which will protect vulnerable children who have not been abducted but are at high risk of danger, injury or death and alert the public that they are missing.
2. That this motion be sent to all municipalities across Ontario and the Association of Municipalities Ontario (AMO) for endorsement.

Recorded Vote	YES	NO	ABSENT	ABSTAIN
Mayor B. Crombie	X			
Councillor S. Dasko	X			
Councillor P. Mullin	X			
Councillor C. Fonseca	X			
Councillor J. Kovac	X			
Councillor C. Parrish	X			
Councillor R. Starr			X	
Councillor D. Damerla	X			
Councillor M. Mahoney			X	
Councillor P. Saito	X			
Councillor S. McFadden	X			
Councillor G. Carlson	x			

Carried (10-0-2-Absent)

July 6, 2022

Honourable Steve Clark
Minister of Municipal Affairs and Housing
17th Floor, 777 Bay St.
Toronto ON M7A 2J3

Via Email

Dear Minister Clark:

Re: Removal of Municipal Councillors Under Prescribed Circumstances

City Council, at its meeting held on May 30, 2022, considered the above-noted matter and passed Resolution No. R-220530-013 as follows:

"WHEREAS across municipal councils in Ontario there have been appalling instances of misogyny and hatred; and

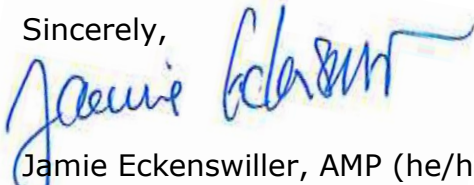
WHEREAS the powers of the Office of the Integrity Commissioner do not include the ability to recommend expulsion of councillors;

NOW THEREFORE BE IT RESOLVED THAT City Council direct staff to send a letter to the Ministry of Municipal Affairs and Housing with copies being sent to the federal government, provincial government, Association of Municipalities of Ontario (AMO), and all Ontario municipalities, requesting that the Ministry:

- 1. Study the merits of allowing the recall of municipal councillors under carefully prescribed circumstances, including displays of hatred, misogyny and all forms of discrimination; and**
- 2. Facilitate strengthened and ongoing orientation and training sessions for councils, local boards, and committees."**

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,



Jamie Eckenswiller, AMP (he/him)
Deputy Clerk
City of Owen Sound

cc. Government of Canada
Government of Ontario
Association of Municipalities of Ontario
All Ontario Municipalities



July 06, 2022

Premier Ford
Legislative Building
Queen's Park
Toronto, ON M7A 1A1

Sent via email: premier@ontario.ca

Honourable Premiere Ford,

Re: Grey Highlands Council resolution 2022-421 – Support for the Town of the Blue Mountains motion re: Voter's List Information for Candidates

Please be advised that the following resolution was passed unanimously at the July 06, 2022 meeting of the Council of the Municipality of Grey Highlands.

2022-421

Dane Nielsen, Tom Allwood

That Council receive the correspondence from the Town of the Blue Mountains for information; and

That Council direct staff to forward a letter of support to all those indicated in the resolution from the Town of the Blue Mountains and the Association of Municipalities of Ontario.

By a vote of 7-0, CARRIED.

Yea: Dane Nielsen, Paul McQueen, Aakash Desai, Paul Allen, Tom Allwood, Cathy Little, and Danielle Valiquette

Nay: None.

The Municipal Elections Act states in s. 23(4) (emphasis added):

Copies for candidates

(4) On the written request of a certified candidate for an office, **the clerk shall provide him or her with the part of the voters' list that contains the names** of the electors who are entitled to vote for that office. 1996, c. 32, Sched., s. 23 (4); 2016, c. 15, s. 17 (2).

The Municipality of Grey Highlands

206 Toronto Street South, Unit One - P.O. Box 409 Markdale, Ontario N0C 1H0
519-986-2811 Toll-Free 1-888-342-4059 Fax 519-986-3643
www.greyhighlands.ca info@greyhighlands.ca

This wording limits Municipal Clerks from providing mailing addresses to candidates who may wish to send out candidate information to the electorate within their municipality and has provided confusion amongst those wishing to interpret this legislation. It is the hope that through this campaign, that the Ministry of Municipal Affairs and Housing will conduct a review of this section of the legislation to provide the clarity being sought and potentially amend the legislation to allow for the release mailing addresses of the electorate in addition to the names provided to Candidates.

I have attached the original motion from the Town of The Blue Mountains for your information.

If you require anything further, please contact this office.

Sincerely,

Raylene Martell

Raylene Martell
Director of Corporate and Legislative Services/Municipal Clerk
Municipality of Grey Highlands

Encl.

Cc: All Ontario Municipalities via email
Minister of Municipal Affairs and Housing via email: Steve.Clark@pc.ola.org
Canadian Civil Liberties Association via email: administration@ccla.org
Association of Municipalities of Ontario via email: resolutions@amo.on.ca



The Town of The Blue Mountains
Council Meeting

Title: Mayor Soever Notice of Motion May 10, 2022

Date: Tuesday, May 24, 2022

Moved by: Mayor Soever

Seconded by: Councillor Hope

WHEREAS it is in the best interest of good government and the democratic process that all Ontarians have access to candidate information during the upcoming municipal elections; and,
WHEREAS the clerks of some municipalities do not supply the mailing addresses of voters on the voters list to candidates, thereby limiting the access of voters who have mailing addresses outside the municipality to candidate information, effectively disenfranchising them;
BE IT RESOLVED THAT the Council of the Town of The Blue Mountains expresses its support for the inclusion of the mailing addresses of voters on voter's lists provided to candidates;
AND THAT a copy of this resolution be sent to all municipalities in Ontario to ask for their support;
AND THAT a copy of this resolution be sent to the Premier of Ontario and the Minister of Municipal Affairs and Housing;
AND THAT a copy of this resolution be sent to the Canadian Civil Liberties Association

YES: 6

NO: 0

CONFLICT: 0

ABSENT: 1

The motion is Carried

YES: 6

Mayor Soever

Deputy Mayor Bordignon Councillor Hope

Councillor Matrosovs

Councillor Sampson

Councillor Bill Abbotts

NO: 0

CONFLICT: 0

ABSENT: 1

Councillor Uram

Good afternoon,

Attached, please find a copy of **Notice of Study Completion-2022 Transportation Master Plan**. This notice has been posted on york.ca and will be promoted on social media.

The Regional Municipality of York is planning for the future and has completed an update to the Transportation Master Plan. Research, analysis and community input has guided the updates. Thank you to all who participated and provided feedback.

The Transportation Master Plan is the long-term vision for York Region's transportation network, encompassing strategy, initiatives and infrastructure by looking ahead 30 years and planning for growth and supporting the changing needs of travellers.

This notice of completion places the Transportation Master Plan on public record for a 30-day review period, beginning July 7, 2022. The Plan can be reviewed and downloaded at york.ca/TMP

The Transportation Master Plan was updated through Approach #1 of the Municipal Class Environmental Assessment master planning process.

We invite you to review the 2022 Transportation Master Plan and direct any comments or outstanding concerns by August 7, 2022 to:

The Regional Municipality of York
 Transportation Operations, Public Works
 Phone: 1-877-464-9675 ext. 75000
 TTY: 1-866-512-6228
 Email: transportation@york.ca

If you have any questions about this study, please contact:

- Director of Transportation Infrastructure and Planning, Brian Titherington, at 1-877-464-9675 ext. 75901 or brian.titherington@york.ca
- Manager, Transportation and Long-Term Planning, Lauren Crawford at 1-877-464-9675 ext. 73115 or lauren.crawford@york.ca

It may be appropriate for your office to forward this notice to your elected officials and staff as required.

Thank you,

Our working hours may be different. Please do not feel obligated to reply outside of your scheduled working hours. Let's work together to help foster healthy work-life boundaries.

Teresa Vader (she/her) | Communications and Community Engagement Specialist,
 Strategic Initiatives and Programs, Transportation Operations, Public Works

 The Regional Municipality of York | 17250 Yonge Street | Newmarket, ON L3Y 6Z1
 (289) 716-3053 | Teresa.Vader@york.ca | york.ca

Our Mission: **Working together to serve our thriving communities – today and tomorrow**

2022 TRANSPORTATION MASTER PLAN UPDATE

NOTICE OF STUDY COMPLETION

A TRANSPORTATION NETWORK FOR THE FUTURE

The Regional Municipality of York is planning for the future and has completed an update to the Transportation Master Plan. Research, analysis and community input has guided the update. Thank you to all who participated and provided feedback.

The Transportation Master Plan is the long-term vision for York Region's transportation network, encompassing strategy, initiatives and infrastructure by looking ahead 30 years and planning for growth and supporting the changing needs of travellers.

This notice of completion places the Transportation Master Plan on public record for a 30-day review period, beginning Thursday, July 7, 2022. The plan can be reviewed and downloaded at york.ca/TMP

**We invite you to review the 2022
Transportation Master Plan and direct
any comments or outstanding concerns
by Monday, August 8, 2022 to:**

The Regional Municipality of York
Transportation Operations, Public Works
Phone: 1-877-464-9675 ext. 75000
TTY: 1-866-512-6228
Email: transportation@york.ca

The Transportation Master Plan was updated through Approach #1 of the Municipal Class Environmental Assessment master planning process.

This notice was issued on Thursday, July 7, 2022. Accessibility formats or communication supports are available upon request.

Wayne Emmerson
York Region Chairman and CEO

This study is being conducted in accordance with Approach #1 of the *Municipal Class Environmental Assessment* document (October 2000, as amended in 2007, 2011 and 2015). Personal information submitted (e.g. name, address, phone number) is collected, maintained and disclosed under the authority of the *Environmental Assessment Act* and the *Municipal Freedom of Information and Protection of Privacy Act*. Personal information you submit will become part of a public record that is available to the general public, unless you request that your personal information remain confidential.



**BONFIELD TOWNSHIP
OFFICE OF THE DEPUTY CLERK**

365 HIGHWAY 531

BONFIELD ON P0H 1E0

Telephone: 705-776-2641 Fax: 705-776-1154

Website: <http://www.bonfieldtownship.com>

Email: deputyclerk@bonfieldtownship.com

RESOLUTION OF COUNCIL
July 12th, 2022

No. 4

Moved by Councillor Corbett

Seconded by Councillor Vaillancourt

WHEREAS the Ontario Amber Alert is a warning system that quickly alerts the public of a suspected abduction of children who are in imminent danger; **AND WHEREAS** the goal is to broadcast as much information about the child, the abductor and suspect vehicles as quickly as possible so that the public can respond with any relevant information that might lead to the child's safe return; **AND WHEREAS** people are encouraged to share the Amber Alert with as many people as possible. If a child or vulnerable person is abducted, spreading the information quickly is critical to their safe return; **AND WHEREAS** an Amber Alert makes the Public aware to keep an eye out for the child, vulnerable person, suspect and the vehicle described, in the alert. If they spot them, try to gather as many details as they can, including the specific location where they saw them, the time, the direction they were travelling in and any other identifying details that will help to locate them; **AND WHEREAS** an Amber Alert gives citizens instructions to call 9-1-1 or the phone number included in the alert immediately if they have a trip or a sighting related to an Amber Alert;

An Amber Alert will only be activated if:

- The police have confirmed that an abduction has taken place; and
- There is reason to believe the victim is in danger of serious physical injury, and there is information available that, if broadcast to the public, could assist in the safe recovery of the victim.

AND WHEREAS it is essential to remember that an Amber Alert is not always appropriate in every circumstance and that their continued effectiveness depends on ensuring that they are only used in cases that meet the above criteria; **AND WHEREAS** the recent tragic death of 11-year-old Draven Graham showed that the Amber Alert system is flawed when it comes to vulnerable children who can go missing but are not abducted; **AND WHEREAS** at the time this motion was written, there have been almost 90,000 citizens who had signed a petition on Change.Org requesting that a Draven Alert be created; **AND WHEREAS** it is clear that there needs to be an addition to the alert system to allow for law enforcement to send out an alert for vulnerable children who go missing under circumstances that do not involve an abduction but are at serious risk of injury or death; **THEREFORE** be it resolved that the Township of Bonfield and its Council endorse the following:

1. That the Minister of the Solicitor General and the Commissioner of the Ontario Provincial Police, as well as the Premier's Office, be requested to make the necessary changes to the Amber Alert system and create a new alert called the Draven Alert, which will protect vulnerable children who have not been abducted but are at high risk of danger, injury or death and alert the public that they are missing.
2. That this motion be sent to all municipalities across Ontario and the Association of the Municipalities of Ontario (AMO) for endorsement.

Carried Randall McLaren

DIVISION VOTE

FOR

AGAINST

Declaration of Pecuniary Interest/Conflict of Interest

Declared interest, abstained from discussion, and did not vote on the question.

CERTIFIED to be a true copy of Resolution No. 4 of the Township of Bonfield's Regular Council Meeting of July 12th, 2022, and which Resolution is in full force and effect.

Andrée Gagné
Deputy Clerk-Treasurer



Township of Perry

PO Box 70, 1695 Emsdale Road, Emsdale, ON POA 1J0

PHONE: (705)636-5941

FAX: (705)636-5759

www.townshipofperry.ca

July 12th, 2022

Via Email

justin.trudeau@parl.gc.ca

karina.gould@parl.gc.ca

The Right Honourable Justin Trudeau, P.C., M.P.
Prime Minister of Canada
80 Wellington Street
Ottawa, ON L1A 0A2

The Honourable Karina Gould, P.C., M.P.
Minister of Families, Children and Social Development
House of Commons
Ottawa, ON K1A 0A6

Dear Prime Minister Trudeau and Minister Gould,

**RE: Township of Perry – Support Town of Aurora Council Resolution
“Private Member’s Bill C-233 “Keira’s Law””**

Please be advised that at their last regular meeting of Council on Wednesday July 6th, 2022, the Council of the Corporation of the Township of Perry supported the following resolution:

“Resolution #2022-286

Moved By: Margaret Ann MacPhail

Seconded By: Joe Lumley

Be it resolved that the Council of the Corporation of the Township of Perry hereby supports the Town of Aurora’s Resolution, Motion 10.1, dated May 24, 2022 re: Private Member’s Bill C-233 “Keira’s Law”;

And further that Council directs staff to provide a copy of this resolution of support to the Right Honourable Justin Trudeau, Prime Minister of Canada, The Honourable Karina Gould, MP, Minister of Families, Children, and Social Development; The Honourable Candice Bergen, Interim Leader of the

Conservative Party of Canada; Yves-Francois Blanchet, MP, Leader of the Bloc Quebecois; Jagmeet Singh, MP, Leader of the New Democratic Party; MP Tony Van Bynen; MP Leah Taylor Roy; MP Scott Aitchison; Town Clerk Michael de Rond, Town of Aurora, and all Ontario municipalities.

Carried.

Your attention to this matter is greatly appreciated.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Beth Morton'.

Beth Morton
Clerk-Administrator

cc: Candice Bergen, Interim Leader of the Conservative Party of Canada
Yves-Francois Blanchet, Leader of the Bloc Quebecois
Jagmeet Singh, Leader of the New Democratic Party
MP Tony Van Bynen
MP Leah Taylor Roy
MP Scott Aitchison
Michael de Rond, Clerk, Town of Aurora
All Ontario Municipalities

BM/ec



MUNICIPALITY OF SHUNIAH

420 Leslie Avenue, Thunder Bay, Ontario P7A 1X8
 Phone: (807) 683-4545 Fax: (807) 683-6982
 Email: shuniah@shuniah.org www.shuniah.org

July 13th, 2022

The Honourable Doug Ford
 Premier of Ontario
 Minister of Intergovernmental Affairs
 Premier's Office
 Room 281
 Legislative Building, Queen's Park
 Toronto, ON M7A 1A1

Via Email: doug.fordco@pc.ola.ca

Dear Premier Ford:

RE: Letter of Support – The County of Hastings and The Municipality of Brighton – Expanding the Amber Alert System

Please be advised that, at its meeting on June 12th, 2022, the Council of the Municipality of Shuniah resolved to support the resolution adopted June 30th, 2022 by the County of Hastings, and the resolution adopted June 20th, 2022 by the Municipality of Brighton.

A copy of the above noted resolution is enclosed for your reference and consideration.

Yours truly,

Kerry Bellamy
 Clerk
 KB/jk

Cc:

Hon. Michael Kernzer, Solicitor General of Ontario
 Mr. Thomas Carrique, Commissioner of the OPP
 Hon. Patty Hajdu, MP Thunder Bay Superior North
 Hon. Marcus Powlowski, MP Thunder Bay Rainy River
 Hon. Lise Vaugeois, MPP Thunder Bay Superior North
 Hon. Kevin Holland, MPP Thunder Bay-Atikokan
 Association of Municipalities of Ontario
 All Ontario Municipalities



COUNCIL RESOLUTION

Resolution No.: 247-22

Date: Jul 12, 2022

Moved By: *A. Burt*

Seconded By: *A. Burt*

THAT Council hereby supports the resolution from the County of Hastings and Municipality of Brighton regarding the request to make the necessary changes to the Amber Alert System and create a new alert called the Draven Alert, which will protect those persons of special needs or circumstances who leave the caregivers or locations and potentially put themselves at risk;

AND THAT the Clerk be directed to forward a copy of this resolution to Premier Doug Ford; Solicitor General of Ontario Michael Kernzer; Commissioner of the Ontario Provincial Police Thomas Carrique; local MP's Patty Hajdu and Marcus Polowski and local MPP's Lise Vaugeois and Kevin Holland; the Association of Municipalities of Ontario (AMO) and to all municipalities in Ontario.

Carried

Defeated

Amended

Deferred

Wendy Larche
Signature

Municipality of Shuniah, 420 Leslie Avenue, Thunder Bay, Ontario, P7A 1X8



Kiran Saini
Deputy Clerk
Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7
Email: ksaini@newmarket.ca
Tel: 905-953-5300 ext. 2203
Fax: 905-953-5100

July 15, 2022

Sent to: [REDACTED]

Dear Nancy Margetts:

RE: Proclamation Request – September – Make Canada Gold

I am writing to advise that your proclamation request has been approved in accordance with the Council-approved [Proclamation, Lighting Request and Community Flag Raising Policy](#), and the Town of Newmarket will proclaim September as Make Canada Gold. Your proclamation request will be communicated on the Town's Twitter account, and on the Town's website on the Proclamation and Lighting Request page.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in yellow on September 1, 2022 to recognize Make Canada Gold. Please note that the lighting will occur from sunset until 11:00 PM.

If you have any questions regarding the above, please feel free to contact the undersigned.

Yours sincerely,

Kiran Saini

Deputy Clerk

A handwritten signature in black ink that reads "Kiran Saini".

/kh



July 15, 2022

Sent to: [REDACTED]

Dear Nancy Margetts:

RE: Proclamation Request – September - Make Canada Gold

On behalf of the Town of Newmarket Council I am pleased to recognize September as Make Canada Gold.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in yellow on September 1, 2022 from sunset until 11:00 PM.

Thank you for submitting your request and for your contributions to the community.

Yours sincerely,

John Taylor
Mayor

Childhood Cancer Canada

P.O. Box 17, 20 Queen Street W., Toronto ON M5H 3R3
www.childhoodcancer.ca
Charitable No. 13189 7654 RR0001



City of Newmarket
395 Mulock Dr. PO Box 328 STN MAIN
Newmarket ON

July 6, 2022

To whom it may concern,

Childhood Cancer Canada runs an annual campaign called “Make Canada Gold” to help raise awareness for Childhood Cancer Awareness Month in September.

Our goal is to have monuments and historical buildings all across Canada lit up gold (R255 G166 B0 Yellow) for September 1, 2022 – the first day of Childhood Cancer Awareness Month – and we would like to add **Riverwalk Commons and the Fred A. Lundy Bridge** to the locations participating.

Cancer is the leading cause of death by disease of Canadian children and 1 in 5 children will not survive beyond 5 years after diagnosis. With approximately 1,500 children and youth diagnosed each year, it is a cause close to the hearts of many Canadian families.

Childhood Cancer Canada supports children and their families through a variety of programs and support such as the Emergency Fund, Empower Packs, Survivorship Scholarships, the Benevolent Fund, and more.

Since 2004, the foundation has been the primary charitable funding partner of clinical trials and childhood cancer research for C17 Council (Children's Cancers & Blood Disorders), comprised of Canada's leading pediatric oncologists and hematologists. Childhood Cancer Canada also funds sequencing of hard-to-cure childhood cancers through the PROFYLE (PRrecision Oncology For Young peopLE) program to identify new therapies that are tailored to each patient and to improve the outcomes in hard-to-cure childhood cancers.

Please let us know if this is something you are able to help facilitate, and if so, our next steps.

For more information on our organization and programs, please visit childhoodcancer.ca.

Sincerely,

Sandi Hancox
Executive Director
sandi@childhoodcancer.ca
(416) 489-6440



Kiran Saini
Deputy Clerk
Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7
Email: ksaini@newmarket.ca
Tel: 905-953-5300 ext. 2203
Fax: 905-953-5100

July 15, 2022

Sent to: shelley@prostatecancerbc.ca

Dear Shelley Werk:

RE: Proclamation Request – September 1 – 30, 2022 - Prostate Cancer Awareness Month

I am writing to advise that your proclamation request has been approved in accordance with the Council-approved [Proclamation, Lighting Request and Community Flag Raising Policy](#), and the Town of Newmarket will proclaim September 1 – 30, 2022 as Prostate Cancer Awareness Month. Your proclamation request will be communicated on the Town's Twitter account, and on the Town's website on the Proclamation and Lighting Request page.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in blue on September 2, 2022 to recognize Prostate Cancer Awareness Month. Please note that the lighting will occur from sunset until 11:00 PM.

If you have any questions regarding the above, please feel free to contact the undersigned.

Yours sincerely,

Kiran Saini

Deputy Clerk

A handwritten signature in black ink that reads "Kiran Saini". The signature is stylized and cursive.

/kh



September is Prostate Cancer Awareness Month and Prostate Cancer Foundation BC and our support initiative, Prostate Cancer Support Canada, would like to request that you **"Light up in Blue"** for all or part of September to show support for the #1 cancer in men.

Our mission is to raise awareness about prostate cancer for the month of September by having as many landmarks, bridges and buildings across Canada light up in blue.

We will be promoting our Light up in Blue on our social media platforms and through our newsletters that go out across Canada.

[#lightupinblue](#) [#prostatecancerawareness](#) [#showyourblue](#)

To participate, please contact Shelley Werk at Prostate Cancer Foundation BC
shelley@prostatecancerbc.ca 604 574-4012

We thank you very much for your wonderful support!



Prostate
Cancer
Foundation BC

www.prostatecancerbc.ca



www.prostatecancersupport.ca



Kiran Saini
Deputy Clerk
Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7
Email: ksaini@newmarket.ca
Tel: 905-953-5300 ext. 2203
Fax: 905-953-5100

July 15, 2022

Sent to: lday@alzheimer-york.com

Dear Lisa Day:

RE: Proclamation Request – September – World Alzheimer’s Month

I am writing to advise that your proclamation request has been approved in accordance with the Council-approved [Proclamation, Lighting Request and Community Flag Raising Policy](#), and the Town of Newmarket will proclaim September 2022 as World Alzheimer’s Month. Your proclamation request will be communicated on the Town’s Twitter account, and on the Town’s website on the Proclamation and Lighting Request page.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in dark blue on September 21, 2022 to recognize World Alzheimer’s Day. Please note that the lighting will occur from sunset until 11:00 PM.

If you have any questions regarding the above, please feel free to contact the undersigned.

Yours sincerely,

Kiran Saini

Deputy Clerk

A handwritten signature in black ink that reads "Kiran Saini".

/kh



July 15, 2022

Sent to: lday@alzheimer-york.com

Dear Lisa Day:

RE: Proclamation Request – September - World Alzheimer's Month

On behalf of the Town of Newmarket Council I am pleased to recognize September 2022 as World Alzheimer's Month.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in dark blue on September 21, 2022 from sunset until 11:00 PM.

Thank you for submitting your request and for your contributions to the community.

Yours sincerely,

John Taylor
Mayor

July 6, 2022

Did you know that one in two Canadians think they can't live well with dementia and that one in four Canadians believe their life would be over after getting at diagnosis? That is according to an Alzheimer Society of Canada 2017 Awareness Survey. And it is for this reason, we are again asking the Town of Newmarket to proclaim September World Alzheimer's Month.

By raising awareness about this fatal disease, we can change the stigma associated with a diagnosis and ensure people receive the support they need to live well after a diagnosis. Often friends and family disappear after a person is diagnosed with dementia, leaving caregivers and those living with the disease alone at a time when they need the most help. Social interaction has shown to slow the progression of the dementia.

With a proclamation issued by the Town of Newmarket, you are showing the more than 17,000 York Region residents who have been diagnosed with Alzheimer's disease and other dementias (ADOD) - and for 10 to 12 people directly impacted by each person who receives a diagnosis – they are not alone.

Other information about dementia:

- Dementia is a general term for the loss of memory, language, problem solving and other thinking abilities that are severe enough to interfere with day-to-day living. There are a variety of types of dementia, with Alzheimer's disease being one of them.
- There is no cure for dementia.
- One in five Canadian caregivers of people living with dementia have experienced stigma.
- 46 per cent of Canadians admit they would feel ashamed or embarrassed if they had dementia.
- 66 per cent of caregivers find the experience isolating.
- 87 per cent of caregivers wish people understood the realities of caring for someone living with this disease.

AS York has been providing supports to both the person living with dementia and their caregivers since 1985.

Sincerely,
Lisa Day
Freelancer
Communications and social media coordinator



2-240 Edward Street, **Aurora**, ON L4G 3S9
Tel: 905-726-3477 / 1-888-414-5550 / Fax: 905-726-1917 / www.alzheimer-york.com
Charitable Registration # 10670 5429 RR0001
Offices and Programs across York Region

Thornhill (Markham)

Georgina

Whitchurch-Stouffville

Richmond Hill

Vaughan





Kiran Saini
Deputy Clerk
Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7
Email: ksaini@newmarket.ca
Tel: 905-953-5300 ext. 2203
Fax: 905-953-5100

July 15, 2022

Sent to nana@coachesontario.ca

Dear Nana Yaw Serbeh:

RE: Proclamation Request – September 17 – 25, 2022 – National Coaches Week

I am writing to advise that your proclamation request has been approved in accordance with the Council-approved [Proclamation, Lighting Request and Community Flag Raising Policy](#), and the Town of Newmarket will proclaim September 17 – 25, 2022 as National Coaches Week. Your proclamation request will be communicated on the Town's Twitter account, and on the Town's website on the Proclamation and Lighting Request page.

If you have any questions regarding the above, please feel free to contact the undersigned.

Yours sincerely,

Kiran Saini

Deputy Clerk

A handwritten signature in black ink that reads "Kiran Saini".

/kh



July 15, 2022

Sent to: nana@coachesontario.ca

Dear Nana Yaw Serbeh:

RE: Proclamation Request - September 17 – 25, 2022 – National Coaches Week

On behalf of the Town of Newmarket Council I am pleased to recognize September 17 – 25, 2022 as National Coaches Week.

Thank you for submitting your request and for your contributions to the community.

Yours sincerely,

A handwritten signature in black ink that reads "John Taylor".

John Taylor
Mayor



July 13th, 2022

His/Her Worship John Taylor
Town of Newmarket
395 Mulock Drive, PO Box 328, STN Main
Newmarket, Ontario L3Y 4X7

Dear Mayor Taylor,

On behalf of the Coaches Association of Ontario, we would like to thank you for reviewing our request to issue an official proclamation recognizing National Coaches Week from September 17th – 25th in Town of Newmarket.

National Coaches Week encourages Canadians to say thanks and celebrate the tremendous positive impact coaches have on athletes and communities. This week will focus on putting a spotlight on coaches and give this, largely volunteer, integral part of Canadian sport a thanks.

With events held across the province and country to celebrate coaching, National Coaches Week provides coaches with the recognition they deserve for the time they devote to ensuring Canadians live an active, healthy lifestyle. I am requesting that September 17th to 25th, 2022 be publicly proclaimed National Coaches Week in Toronto to say thanks to the more than 300,000 coaches who call Newmarket and Ontario home.

Throughout the week, communities all across Ontario will be showing their support for coaches through community events, proclamations and lightings to celebrate and recognize coaches. For more information on our organization and the 7th annual National Coaches week initiative, please visit www.coachesontario.ca/coachesweek.

The Coaches Association of Ontario is an independent, non-profit, coach-led organization, founded in 2002, that strengthens development opportunities and provides resources, representation and recognition for coaches in all sports of all levels. We believe coaches' contributions should be financed and rewarded appropriately, and the Coaches Association of Ontario advocates that sports and the coaching profession continue in a culture of innovation, continual renewal and professional development.

I look forward to working with you on this years' National Coaches Week.

Thank you,

Jeremy Cross | Executive Director

Coaches Association of Ontario

Suite 200A | 1 Concorde Gate | Toronto, ON M3C 3N6 | 416-426-7088



Coaches Helping Coaches www.coachesontario.ca

200A-1 Concorde Gate, Toronto, ON M3C 3N6 (416) 426-7086



Jaclyn Grossi
Acting Deputy Clerk
Town of Newmarket
395 Mulock Drive
P.O. Box 328 Station Main
Newmarket, ON L3Y 4X7
Email: jgrossi@newmarket.ca
Tel: 905-953-5300 ext. 2207
Fax: 905-953-5100

June 10, 2022

Sent to: emily@mitocanada.org

Dear Emily:

RE: Proclamation Request – September 24, 2022 – World Mitochondrial Disease Week

I am writing to advise that your proclamation request has been approved in accordance with the Council-approved [Proclamation, Lighting Request and Community Flag Raising Policy](#), and the Town of Newmarket will proclaim September 24, 2022 as World Mitochondrial Disease Week. Your proclamation request will be communicated on the Town's Twitter account, and on the Town's website on the Proclamation and Lighting Request page.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in green on September 23, 2022 to recognize World Mitochondrial Disease Week. Please note that the lighting will occur from sunset until 11:00 PM.

If you have any questions regarding the above, please feel free to contact the undersigned.

Yours sincerely,

A handwritten signature in black ink that reads "JGrossi".

Jaclyn Grossi

Acting Deputy Clerk

/kh



June 10, 2022

Sent to: emily@mitocanada.org

Dear Emily:

RE: Proclamation Request – September 24, 2022 – World Mitochondrial Disease Week

On behalf of the Town of Newmarket Council I am pleased to recognize September 24, 2022 as World Mitochondrial Disease Week.

In addition, the Riverwalk Commons and Fred A. Lundy Bridge located on Water Street will be illuminated in green on September 23, 2022 from sunset until 11:00 PM.

Thank you for submitting your request and for your contributions to the community.

Yours sincerely,

John Taylor
Mayor



Hello,

World Mitochondrial Disease Week is back September 18 - 24th to raise awareness for mitochondrial health and disease (mito) on a global scale! Thank you again for joining us last September to Light Up for Mito.

Last year, we experienced record-breaking social media engagement. We had over 48 Canadian and over 237 international landmarks shining brightly in green!

Mitochondria are the energy source of our cells. We all have trillions of them and need them to fuel our muscles, brains and lives. Without them, we cannot survive.

We ask you to join us again in 2022 for another record-breaking campaign to make this global initiative a great success!

This is our formal request for Newmarket Riverwalk Commons & Fred A. Lundy Bridge be lit up in green on Saturday, September 24th, 2022.

Please reply to this email to affirm your participation and provide MitoCanada with instructions on what we need to do to ensure your landmark is included in our global initiative. Thank you for your consideration and support.

Sincerely,

Emily Ing
Event and Community Awareness Coordinator, MitoCanada Foundation
www.MitoCanada.org
Charity Registration #- 81258 6667 RR0001

What is Mitochondrial Disease

Without energy, we cannot survive. It is as simple – and complex – as that.

The human body is fueled by trillions of microscopic powerhouses called mitochondria. Present in almost every cell in our bodies, these tiny but mighty, energy-producing structures generate the energy we need to survive.

When mitochondria are dysfunctional, the impact on the body can be devastating. Those affected can suffer a myriad of symptoms that cause health and quality of life to decline and, for too many, result in death.

Every 30 minutes, a child is born with mitochondrial disease. There are hundreds of illnesses associated with mitochondrial dysfunction, including dementia, ALS, Parkinson's disease, cancers, and the list is growing. Mitochondrial disease can affect anyone at any age. There is no cure.

MitoCanada is dedicated to creating a world where all lives are powered by healthy mitochondria. Learn how to protect yourself and those you love at MitoCanada.org.