

Financial impact analysis of service delivery models

The Regional Municipality of Peel

Private and confidential

March 19, 2019

March 21, 2019

Tel: 416-601-6150
Fax: 416-601-6151

Private and confidential

Mr. Stephen VanOfwegen
Commissioner of Finance and Chief Financial Officer
Regional Municipality of Peel
10 Peel Centre Drive
Brampton ON L6T 4B9

Dear. Mr. VanOfwegen,

We are pleased to submit our report summarizing the analysis that we have completed on the financial impact of municipal service delivery models. We would like to take this opportunity to thank Gary Scandlan and Daryl Abbs from Watson & Associates Economists Ltd. for their assistance in determining the expected financial impact as it relates to development charges, as well as providing expertise on municipal restructuring in the Province of Ontario. We would also like to thank the Regional Municipality of Peel's staff who assisted us in providing information for us to complete our review.

This report is intended solely for the information and use of Mr. Stephen VanOfwegen and management of the Regional Municipality of Peel. Deloitte has not performed its services on behalf of or to serve the needs of any other person or entity. Accordingly, Deloitte expressly disclaims any duties or obligations to any other person or entity based on its use of the attached report. Deloitte has not performed an audit or review through this report on the Regional Municipality of Peel or the other local governments mentioned in the report. Accordingly, Deloitte does not express any form of assurance on accounting matters, financial statements, any financial or other information or internal controls. The observations that have been made in this report were designed to assist the Regional Municipality of Peel's management in reaching their own conclusions that they are planning on sharing with the Province of Ontario through the Regional government review.

Yours sincerely



Matt Colley
Partner
Deloitte LLP

Table of contents

Executive summary	1
Background	11
Methodology	17
Dissolution	20
Amalgamation	29
Efficiencies	38
Appendix A: Assumptions	41
Appendix B: Overview of changes in the Locals' tax levies	51
Appendix C: Financial Metrics	53
Appendix D: Case studies	56
Appendix E: Review of case law and arbitration results	61
Appendix F: Results of analysis for development charges and rate impact of wholesale-retail model	67
Appendix G: Bibliography	71

Executive summary

Introduction

One of the most significant financial challenges for Ontario's municipalities over the next 10 years will be the infrastructure financing deficit, which is currently estimated to be \$60 billion for Ontario municipalities (Association of Municipalities Ontario, 2018). Municipal infrastructure is used to provide key services to residents of Ontario, including drinking water, sewage and waste disposal, social housings, roads and bridges, transit and parks and recreational facilities. The Association of Municipalities of Ontario has noted that the infrastructure used to provide these services is under pressure, as many of these assets were first built in the 1950's and 1960's (Reid, 2018). In Ontario, some of the significant infrastructure challenges have historically been addressed through regional governments, which are designed to provide certain area-wide municipal functions in a more economical manner by establishing a larger tax base to support services where significant infrastructure investments are required.

We have been asked by the Regional Municipality of Peel ("the Region" or "Peel") to examine the financial implications of moving from the current state model of a two tiered municipal government model (i.e. Regional and Local Municipal governments), to three specific governance scenarios:

- Efficiencies to be explored without a governance change
- Dissolution of the Region (the extinguishment of regional government in Peel)
- Amalgamation of the Local Municipalities ("the Locals"), which include the City of Mississauga ("Mississauga"), the City of Brampton ("Brampton"), and the Town of Caledon ("Caledon"), with the Region (one government providing local and regional services)

The Region's request was made to prepare for the upcoming Province of Ontario ("the Province")'s review of Ontario municipalities that are currently governed under a two-tiered governance model. The Province has announced that its review will be conducted to assess whether governments are currently operating as efficiently and effectively as possible. As such, the financial implications determined under this report will serve to assist the Region in preparing for its discussions with the Province.

The financial analysis completed in this report also considers past case law and arbitration results as the best evidence to allocate assets and liabilities in the absence of an agreement between willing parties. It is believed that using this type of legal precedence is the best evidence to determine the financial outcomes of the scenarios that have been defined. We recognize that it is essential for our methodology to consider governance structure changes in alignment with key arbitration principles, such as the Cummings principles, which asserts that municipalities should be compensated in the event residents lose access to a particular benefit as a result of the transaction – these principles are important to consider, especially as they may impact how asset allocation decisions are made, as well as affect the ease of transition.

In addition to the above, when comparing these options, we have been asked to calculate the estimated impact on the following measures over a 10 year time horizon:

Resident impact

- Property tax per average home value of \$484,000
- Utility rates per average household water consumption of 290m³

Total impact

- Total property tax paid by each jurisdiction
- Total utility rates charged by each jurisdiction

Municipal financial metrics

- Debt to operating revenue
- Interest expense to operating revenue
- Operating balance to operating revenue
- Operating and capital balance to total revenue
- Annual repayment limit
- Net debt

Findings

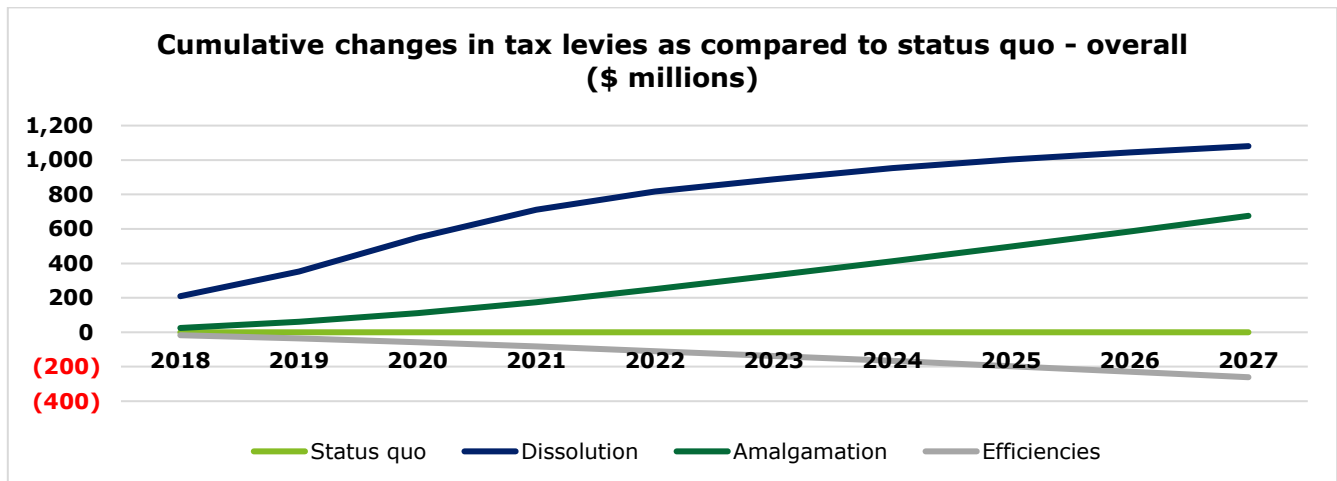
Based on the analysis contained in this report, we have calculated the following impacts of the scenarios described above. Deloitte does not provide a recommendation on which option should be selected, as this report is limited to strictly financial analysis. The impacts of our analysis are summarized as follows:

- Amalgamation will require additional tax levies of \$676 million that will need to be raised when compared to the status quo over the next 10 years. However, out of the three governance restructuring options, amalgamation requires the most tax levies in year 10 as operating costs are the most significant due to the estimated impact of harmonizing wages amongst the Region and Locals.
- Dissolution will ultimately require additional annual tax levies of \$1,081 million that will need to be raised when compared to the status quo over the next 10 years. Dissolution is more costly than amalgamation initially due to initial investments required to duplicate regional services locally. Once these investments are made, the harmonization impact of wages is less pronounced as harmonization would only occur between the Region and individual local governments (as opposed to the Region and all local governments under amalgamation).
- Efficiencies will generate tax savings of \$261 million, if realized, that will reduce tax requirements when compared to the status quo over the next 10 years.

Impact on property tax levies

It is expected that taxes will increase over the next 10 years due to inflation and the need to address the existing infrastructure financing deficit across all governments. By the 10th year, it is expected that dissolution and amalgamation will require more taxes to be raised than the status quo.

While dissolution does require a more significant up front investment (one time costs), the cumulative change in tax levies over time under amalgamation demonstrates that amalgamation has the potential to be more costly over time as the impacts of harmonization are more significant and are not expected to be reversed. Overall view of changes in tax levies for the overall region is included below and expanded for each of the Locals in **Appendix B**.



Utility rates per average household water consumption of 290m³

Under amalgamation there are no impacts to utility rates as water and wastewater services are already provided at the regional level.

Upon dissolution, an assumption has been made that the delivery model would remain the same and that a joint utility board (i.e. the base case) could be formed by the Locals. This model was used as our base case given that it was considered to have the least financial impact on the taxpayers. In this delivery model, the joint utility board would be responsible for all asset ownership, asset management, and operational activities, as well as customer-facing activities, such as the billing process. As such, there is no expected impact on utility rates, which result from changes in the municipalities’ DC revenues, under dissolution. The Locals’ debt capacity, however, will be affected, especially as the board’s assets and liabilities would be apportioned to each of the municipalities for accounting purposes.

There is, however, an alternate service delivery model that has been used in Ontario. The Locals could elect to use a wholesale-retail model whereby a board would be responsible for significant water and wastewater assets, such as water and wastewater treatment facilities and large diameter linear mains, and the Locals would be responsible for smaller diameter linear assets for water distribution and wastewater collection. In this model, the Locals would need to fund anticipated maintenance and replacement costs through their respective utility rates. Watson & Associates Economists Ltd. prepared a sensitivity analysis, which examined how each of the Locals’ utility rates may change in the event this separate model is used. The following table summarizes Watson & Associates Economists Ltd.’s analysis, which examines utility rates for 2019 based on forecasted water and wastewater volumes (m³) and budgets:

	Water – rate/m ³			Wastewater – rate/m ³				
	Current rates	Forecasted rates (\$)	Change in rates (%)	Change in revenue (\$ million)	Current rates	Forecasted rates (\$)	Change in rates (%)	Change in revenue (\$ million)
Peel	\$1.4725				\$1.1367			
Mississauga		\$1.5504	5%	\$4.6		\$1.1665	3%	\$1.9
Brampton		\$1.4306	(3%)	(\$1.8)		\$1.1216	(1%)	(\$0.7)
Caledon		\$2.5064	70%	\$4.0		\$1.1928	5%	\$0.2

The above analysis indicates that Mississauga and Caledon’s residents would be most negatively affected if a wholesale-retail model is implemented subsequent to dissolution to account for additional infrastructure maintenance and replacement costs that will not be funded if utility rates remained the same. For further details concerning Watson & Associates Economists Ltd.’s analysis, please refer to **Appendix F**.

One additional consideration to note is that as the report assumes that a joint utility board would be in place for dissolution, the Locals will need to consider how the board’s financial results will be reflected in their year-end financial statements. In particular, Canadian public sector accounting standards, which are a series of accounting regulations and standards followed by public sector entities for financial reporting purposes, indicates that the Locals would need to assess whether they control the board’s day-to-day operations. In the event the Locals are seen to have full control over how the board operates its business, then the board’s financial results may need to be proportionately consolidated or included in each of the Locals’ financial statements. If this approach is taken, then the boards’ liabilities, such as long-term debt, would be reflected in the Locals’ year-end financial results which may ultimately impact their financial metrics. For the purposes of this report, we will assume that a proportional consolidation approach would be used. However, additional investigation would be required to ensure that that this accounting approach is valid.

Financial Metrics

The Region, Mississauga, and Brampton have all obtained “AAA” credit ratings from Standard and Poors, and are three of eight municipalities in Canada that have obtained this rating. Based on our review, we have estimated that each municipality is able to withstand a dissolution or amalgamation without upsetting borrowing limits. However, if dissolution were to occur, we estimate that Mississauga would see a significant

improvement in financial metrics, to the detriment of Brampton and Caledon, given that Mississauga has a larger commercial and industrial tax base which would be available for their exclusive use. On amalgamation, the Region would see a deterioration of financial metrics, but would theoretically improve its borrowing capacity. On dissolution, Caledon would face significant financial challenges and is not viable on their own in the event that a governance model changes. Details of how the Region and the Locals' financial metrics change in each of the reviewed governance models are available in **Appendix C**.

Dissolution – Key Impact on Municipalities

- Mississauga benefits the most from dissolution, especially as it sees positive trends in financial metrics. Significant changes in financial metrics for dissolution in comparison to the status quo, include: increase of operating balance to operating revenue by 6.7%, increase of total balance to total revenue by 10.1%, and increase of \$2.4 million for net assets.
- Caledon does not maintain healthy financial ratios in the case of dissolution. In particular, the municipality does not have a sufficient tax base which can be used to supplement the additional expenditures that it will need to fund on a standalone basis. Significant changes in financial metrics for dissolution in comparison to the status quo, include: decrease of operating balance to operating revenue by 28.8%, decrease of total balance to total revenue by 25.3%, and increase in debt to operating revenue by 23.8%.
- Brampton's debt related metrics are most impacted upon dissolution. Upon dissolution, as noted in the earlier section, the city would be required to recognize a proportion of the board's long-term debt as part of the municipality's financial statements to comply with accounting regulations. As a result, the municipality is predicted to proportionately consolidate long-term debt related to water and wastewater assets. In particular, under dissolution, Brampton's debt to operating revenue, when compared to the status quo, will increase by 27.9%.

Amalgamation – Key Impact on the new city

- Amalgamation has a minor negative impact on the new city's financial metrics, such as operating balance to operating revenue and total balance to total revenue ratio (please refer to **Appendix C** for further details). No significant changes are observable, which can be attributed to the relatively strong financial positions that are currently reported by Mississauga and Brampton.
- Debt ratios under amalgamation become more favourable for the new city as the debt consolidated from the local municipalities is much less in comparison to the additional assets and revenues it collects.

Approach for the Financial Analysis

In reviewing the financial implications of the defined options, all regional and local services were analyzed based on publicly available information, using a common, standardized approach as it related to FTE, asset, debt and reserve allocations, other operating expenses, and capital expenditures. Some services, however, were reviewed in greater detail given that they were perceived to significantly influence the municipalities' total tax requirements.

Dissolution

Dissolution of a regional government is not a common occurrence in Canada or globally. The research we have conducted indicates that dissolution is not usually done with the objective of financial savings for one municipality over another, as it is intentionally moving away from the desired economies of scale that a regional government should provide. In the examples we have found where dissolution did occur, we found that the reason for dissolution was due to either a previous amalgamation that became ineffective, or due to smaller communities not needing the same service levels as other communities in the Region (e.g. urban versus rural constituents often have different service level needs).

Our research also indicates that if dissolution does occur, significant effort will be required amongst the local municipalities to negotiate how assets and services should be divided, and could result in the local municipalities going to arbitration to determine how to allocate Regional assets. As such, precedence established by both case law and arbitration results were used to guide our approach to dissolution. We recognized that, on average, the arbitrator considered general principles such as the original source of

funding to determine how to best allocate resources amongst the affected parties, as well as considered how compensation should be awarded in the event residents were seen to lose access to benefits they previously enjoyed.

A review of how dissolution impacts some key service lines is summarized in the below table:

Service area	Summary of impact
Water/ wastewater	Under the base case scenario, services would be maintained and provided by a joint utility board, which includes all of the Locals.
Police	<p>Upon dissolution, this report assumes that Brampton and Mississauga would establish their own standalone police boards. Use of discrete police boards is a common approach in Ontario, especially in similar sized single-tier municipalities, such as the City of London and the City of Hamilton. Although not considered in this report, Brampton and Mississauga could elect to use a different delivery model whereby services are provided under a joint police board. For instance, the City of Ottawa, the City of Nepean and the Town of Gloucester had a joint police board before the three municipalities were formally amalgamated in 2001. Caledon, on the other hand, is expected to assume the Region’s current contract with the Ontario Provincial Police.</p> <p>The Locals are predicted to be responsible for more than \$108.0 million of forecasted capital expenditures over the next 10 years to ensure that they have the right infrastructure and assets in place to serve their residents, such as two police headquarters buildings. One-time costs of \$47.5 million and \$50.9 million for Mississauga and Brampton, respectively, will need to be incurred to account for temporary management staff who will assist the two cities transition to local police boards.</p>
Roads	Deloitte previously performed a regional roads assessment in 2017, which was formally approved by the Regional Council. Under this study, the dissolution study showed that the Locals would need to increase the number of their front-line employees to maintain current service levels, which has the potential to increase salary and wage costs by \$1.4 million on annual basis. Development charges of \$10.8 million, previously collected by the Region, may also be lost which would translate to higher tax requirements.
Waste management	The Region of Peel currently outsources collections and disposal services, and it is assumed that this would continue if dissolution of the Region were to occur. Since waste processing is dependent on the Peel Integrated Waste Management Facility in Brampton, it was assumed that Brampton would be allocated the asset and enter into service agreements with Mississauga and Caledon to provide waste processing services to their residents. Exact quantification of the savings or costs resulting from this transfer was not determinable at the time of this report.
Housing	For the purposes of maintaining current service levels, a greater number of management staff will be needed to provide system oversight and manage operations for the local facilities which will result in ongoing operating costs for each of the Locals (Mississauga: \$4.2 million; Brampton - \$2.4 million; and Caledon - \$0.4 million).
Development charges	<p>In a dissolution, development charge (DC) revenues are anticipated to decrease given that revenues will only be generated from growth-related development that take place within each of the Locals’ areas versus the overall region. The narrowed DC scope is predicted to increase tax-supported costs by \$186.2 million over a 10-year period.</p> <p>Rate-supported costs, on the other hand, are not estimated to be affected by the governance change based on the assumption that all water and wastewater services are administered by a local board, which is comprised of the Locals.</p>

Transitioning to single-tier municipalities will require more consideration, especially as the Locals will need to reach an agreement as to how the Region’s assets and liabilities should be allocated. In addition, the Locals would need to consider how they would finance one-time transitional and transactional costs which result from the need to change the governance structure, create and implement a transition plan, engage members of the public, perform due diligence procedures, and determine whether existing agreements with vendors need to be terminated. These additional costs may be substantial in nature, especially if arbitration is required to finalize the transition process. However, given the lack of data around these costs available to the Region, we did not quantify the potential expenditures in our analysis.

Amalgamation

Unlike dissolution, amalgamation of local governments occurs on a more frequent basis and there are recent examples in Ontario, Canada and globally of where amalgamation has occurred. Recent studies, such as the Fraser Institute’s 2015 report on Municipal Amalgamation in Ontario have concluded that amalgamations do not result in a reduction of taxes for residents.

Our analysis in this report indicates that amalgamation will likely cause increases to property taxes to all tax payers across the region. Savings as a result of FTE reductions are more than offset by additional costs related to wage harmonization. Upon amalgamation, given the decrease in net assets caused by these additional costs, this could negatively impact the Region’s existing credit rating. These studies have concluded that while amalgamations do have the potential to create efficiencies and economies of scale, these efficiencies are usually offset by an increase in service levels that are typically required to ensure that all residents within the new amalgamated local government receive the same level of service. We believe that service level harmonization is a possible outcome, which would likely increase the costs of providing services, especially as service levels would be increased for all taxpayers in the new municipality. However, at the time of this report, input from the Locals regarding service level harmonization could not be obtained. As a result, this report assumes that service levels do not change upon amalgamation. Amalgamations also can theoretically be used to create more economies of scale to deal with significant infrastructure challenges (sharing the burden of future infrastructure costs); these economies of scale would allow the Region to better handle infrastructure financing deficits due to increased borrowing capacity of the new municipality.

A review of how amalgamation impacts key service lines is summarized in the below table:

Service Area	Summary of Impact
Corporate support services	Under amalgamation, it is expected that there would be a significant reduction of management level positions due to the centralization of administration. However, similar levels of front-line employees would be maintained to ensure that they can continue to offer similar service levels. The combined impact of terminations and wage harmonization would result in a net cost of \$151 million over a 10-year period.
Transit and TransHelp	Under amalgamation, centralization of administration will likely reduce the need for management positions, but similar levels of front-line employees would be needed to sustain service levels. The combined impact of terminations and wage harmonization would result in a net cost of \$29.4 million over a 10-year period.
Fire	Similar to corporate support services, there is an expectation that there could be a reduction in the management positions for Fire departments. Existing front-line staff, including firefighters, would undergo a wage harmonization process. The combined impact of these personnel changes would result in net savings of \$15 million over a 10-year period.
Parks and recreation	After amalgamation, it is expected that the new “City of Peel” would generate less revenues from its recreational programs, as it would reduce the amount of revenue that could be charged to non-local residents. The change in user classification, therefore, is expected to reduce the higher user fees that they would have previously collected in the status quo scenario.

Service Area **Summary of Impact**

Parks and recreation is also expected to incur net costs of \$199.9 million over a 10-year period – the majority of this increase is attributable to the wage harmonization of front-line employees, but also includes the compensation costs associated with terminated management personnel that were made redundant through amalgamation. The service’s net costs arising from amalgamation are predicted to be larger than the other services given that, on average, it employs a larger proportion of front-line employees.

Roads Upon amalgamation, the new City is anticipated to incur net costs of \$95.3 million over a 10-year period, which results from savings associated with the elimination of redundant personnel that is offset by wage harmonization costs.

DCs An amalgamation is estimated to have a neutral impact on the new municipality’s DC for both tax-supported and rate-supported costs. No significant variances are anticipated given that the new municipality would be able to leverage pre-existing processes, such as those that are used to provide water and wastewater services to residents.

Based on past examples of amalgamations, transitioning to a new governance model will require careful planning and analysis, which may be complex in nature. The new city, for example, would need to consider how the new governance structure would maintain its flexibility and responsiveness to citizens, especially as the taxpayers in each of the current areas would want their needs to be fairly represented. Other qualitative factors, such as harmonization of service levels, updates to current policies and processes, as well as change management activities needed to support existing employees would need to be examined. These transitional activities are anticipated to take time. Rushing amalgamation could create further challenges for the new city to address, such as identifying how the costs of restructuring would be funded or mitigated, as well as whether all services need to be harmonized (Miljan & Spicer, 2015).

Harmonized Ratios and Rates under Amalgamation

Our analysis has assumed that the tax ratios and rates that are used by the Locals under status quo would be carried over under amalgamation. However, there is a strong possibility that the new amalgamated entity could undertake harmonization process of tax ratios, as well as tax rates.

Background of Tax Ratios

Under the current property tax assessment model, properties are classified into different classes, such as residential, farm, multi-residential, commercial, and industrial. Different property classes are used to allow municipalities to set different tax rates based on local priorities, as well as identify properties which are subject to receive tax reductions due to the uniqueness of their nature.

Municipalities, however, are bound to a provincial legislation which limits how the tax burden can be shared between the property classes. The province’s legislation sets out a “range of fairness” which identifies target ranges for tax ratios that are expressed in relation to the tax rate of the residential property class. It is possible for municipalities to change the province’s original tax ratios for farm, commercial, industrial, multi-residential, and pipeline property classes. However, changes are typically made to eliminate the impact of any reassessment related tax shifts that occur during a reassessment cycle.

Peel is the only region where the setting of tax ratios is delegated to the existing lower-tier municipalities.

Harmonization of Tax Ratios

In the event of an amalgamation, without the lower-tier municipalities to which tax ratio setting authority can be delegated, the Region has estimated that harmonized tax ratios would result in the residential taxpayers in Mississauga facing an average increase of approximately 2.07%, whereas both Caledon and Brampton residents would see a small decline in their tax rates. The commercial taxpayers in Brampton

would see an increase of 5.02% in their taxes, whereas commercial taxpayers in Mississauga would see a reduction of 5.25% in their taxes.

The following table shows the change in tax rates and levies for year 2018, resulting from a situation where there is a move from unique tax ratios for each local municipality to harmonized tax ratios under amalgamation.

Property Class	Change in Tax Rates (%)			Change in Tax Levy (CAD \$000s)		
	Brampton	Caledon	Mississauga	Brampton	Caledon	Mississauga
Residential (RT)	(0.67%)	(0.12%)	2.07%	(\$4,440)	(\$119)	\$14,929
Farm (FT)	(31.75%)	1.58%	(29.87%)	(\$98)	\$20	(\$3)
Multi-residential (MT)	(15.01%)	(15.40%)	2.62%	(\$3,872)	(\$72)	\$1,392
Commercial (CT)	5.02%	2.33%	(5.25%)	\$4,005	\$176	(\$8,098)
Industrial (IT)	3.69%	(3.60%)	(2.76%)	\$851	(\$112)	(\$1,098)

Harmonization of Tax Ratios and Tax Rates

The Region has estimated that if harmonized tax rates were to be utilized, the residential tax-payers in Mississauga would face a dramatic increase in their tax rates of 14.58%, whereas Brampton taxpayers would see a sharp decline of 16.42%. This is due to the fact that residents of Mississauga currently have the lowest tax rate, despite contributing the most tax dollars overall to the Region. This is due to the fact that Mississauga residents generally have the highest Current Value Assessment and highest population amongst the three local municipalities.

The following table shows the change in tax rates and levies for year 2018, resulting from a situation where there is a move from unique tax rates for each local municipality to one harmonized tax rate under amalgamation.

Property Class	Change in Tax Rates (%)			Change in Tax Levy (CAD \$000s)		
	Brampton	Caledon	Mississauga	Brampton	Caledon	Mississauga
Residential (RT)	(16.42%)	1.04%	14.58%	(\$109,352)	\$1,052	\$105,316
Farm (FT)	(42.57%)	2.76%	(21.27%)	(\$132)	\$34	(\$2)
Multi-residential (MT)	(28.49%)	(14.42%)	15.20%	(\$7,348)	(\$67)	\$8,075
Commercial (CT)	(11.64%)	3.52%	6.36%	(\$9,294)	\$266	\$9,815
Industrial (IT)	(12.75%)	(2.48%)	9.16%	(\$2,936)	(\$77)	\$3,638

Efficiencies

During our engagement, we were asked to identify whether there were any efficiencies that could be explored without requiring a change in governance structure. For this part of our review, we focused on services where there was potential duplication occurring (similar services being performed by upper and lower tier governments), as well as focusing on where local and regional governments could work together more to achieve more efficiency and effectiveness of services.

On an overall basis, we acknowledged that both the Region and the Locals have achieved efficiencies on a standalone basis, but that further efficiencies could be achieved if all of the municipalities in the region

collaborated with one another. A review of how efficiencies impacts key service lines is summarized in the below table:

Service Area	Summary of Impact
Corporate support services	Corporate support services could be centralized at the Region to minimize growth of back-office employees for all municipalities within the region by investing in automation tools which reduce personnel time spent on manual and repetitive tasks. This investment decision would require the Region and the Locals to assess their current information technology environment to select a suite of programs that are best suited for the needs of all entities, and would involve a transformation in mindset to a more service oriented delivery approach. In general, greater leverage of automation tools are anticipated to lead to a 10% reduction in wages for front-line employees.
Transit and TransHelp	TransHelp services could be downloaded to the local municipalities to eliminate redundant management level positions, which could translate to \$2.5 million of cost savings over a 10-year period.
Fire	Fire services are currently provided by each of the Locals. To maximize greater economies of scale, as well as reduce back-office and management costs, resources could be centralized and maintained at the regional level. Cost savings could not be quantified at this time due to the lack of publicly available information, however this is a potential efficiency that could be explored with all parties.
Parks and recreation	Similar to fire services, management and back-office functions could be centralized to achieve overall savings at the Local level. In addition, all municipalities could achieve more efficiencies through use of additional technologies to address work order management and scheduling of time and attendance. Cost savings could not be quantified at this time due to the lack of publicly available information, however this is a potential efficiency that could be explored with all parties.
Roads	Due to similarities in the nature of services provided amongst the Region and the Locals, there is a potential to achieve greater efficiencies through the centralization of management and back-office functions. Procurement of goods and services could also be centralized to maximize economies of scale when negotiating for favourable prices with vendors. Cost savings could not be quantified at this time due to the lack of publicly available information, however this is a potential efficiency that could be explored with all parties.
Paramedic services	Fire and paramedics services were considered for a potential consolidation. However, based on a review completed by the Region, the merger of the two service lines was not considered to be feasible, especially as the two services had a different workplace culture, mandated by a different set of legislative requirements, and possessed different skill sets which would require extensive training to share responsibilities. In addition, fire and paramedics services were considered to operate under a different service deployment model. For example, fire services use fixed fire stations in order to ensure that there are dedicated resources in a given area, but paramedic services rely on mobile ambulance posts.

Limitations of our analysis

The analysis in this report is a best estimate of the potential financial impacts that could occur if the scenarios described in this report do occur. In carrying out our work, we worked closely with the Region’s financial staff to estimate and quantify the potential impacts. The data used to support our work has been based on publicly available information, such as the Financial Information Returns of each municipality, the operating and capital budgets, the Region’s and Locals’ financial statements, and the Ontario public sector salary disclosure. It should be noted that this information is not a complete set of data for each municipality and that our analysis may be impacted by data that we were unable to obtain. Additionally, this work was

completed without discussing or interviewing representatives of each of the local municipalities, which could contribute materially to our analysis.

The analysis contained in this report is solely limited to the financial implications of the specific scenarios described and does not consider any other potential impacts. If any of these scenarios were to actually occur, this analysis would be impacted by actual negotiations and agreements by the parties involved, which may lead to different outcomes than what are described in this report.

Background

Purpose

The Region was established in 1974 to provide community wide services to the residents of Brampton, Caledon, and Mississauga. After the June 2018 Ontario Provincial Election, the Province of Ontario committed to reviewing the Regional governments in Ontario to ensure that upper and lower-tier municipalities are efficient and accountable to their constituents.

In preparation for this review, the Region has engaged Deloitte to determine the financial implications of three specific scenarios that it believes will help in preparation for the review of the Region, which include:

1. Efficiencies that should be explored without a change in Governance structure
2. Dissolution of the Region of Peel
3. Amalgamation of the Local Municipalities

Summary of Case Law and Arbitration Results

In Ontario, several municipalities, which were restructured in the 1990s, engaged in arbitrations to decide how their resources and obligations needed to be divided and allocated. As the arbitration results are now considered to be legal precedence, municipalities need to consider whether past practices continue to be applicable and if so, how the arbitration results need to be integrated into their restructuring approach. In this paper, the arbitration supporting the dissolution of the municipality of Haldimand-Norfolk in 2002 will be explored.

The dissolution of Haldimand-Norfolk was guided based on a general principle which indicated that assets and reserves needed to be divided based on how the resources were originally funded. In limited circumstances in which taxpayers' access to the assets and their associated benefits were affected, the municipalities receiving the assets needed to provide compensation to the transferor as stated in the Cummings principle (please refer to **Appendix E** for further details), which was established 60 years ago, but served as the basis for more recent restructuring transactions which occurred in the 1990s.

When assets and liabilities were allocated, the arbitrator reviewed the measures that were used to calculate the adjustments. In general, the arbitrator supported use of a weighted assessment for the majority of assets and liabilities that were to be allocated, especially as population and households were not considered to appropriately consider how the assets were originally funded.

In situations where a municipality's residents lost access to an asset and its associated benefits, the arbitrator deemed it necessary for the municipality to be given a compensation adjustment. However, compensation was considered to be awarded on rare occasions, especially as most allocations were perceived to have occurred on an equitable basis.

The Haldimand-Norfolk example also elaborated on how specific assets, liabilities and reserves could be allocated. Key findings of the arbitrator's decisions were as follows:

- Water and wastewater assets and liabilities (excluding long-term debt) were divided based on the average water and wastewater revenues over a five-year period;
- Long-term debt for water and sewer assets was divided by considering how the principal and interest payments were to be made, as well as the DCs which were received to support those assets; and
- Reserves were often allocated based on weighted assessment, but in limited situations considered who originally contributed to the reserve.

For further details supporting this arbitration, as well as examples which describe the establishment of service providers, please refer to **Appendix E** below.

Summary of Case Studies

The Province of Ontario (“the Province”) consulted with a special advisor regarding various municipalities’ governance structures in the 1990s (Miljan & Spicer, 2015) to determine if they were operating efficiently and effectively. The consultations were performed in response to growing concerns about municipalities’ fiscal viability, fragmentation of services, and number of elected officials and bureaucrats who provided similar services in various levels of government. The Province’s reviews suggested that amalgamations would generally result in savings for the taxpayer, which served as the basis for several amalgamations, such as the City of Toronto and the City of Ottawa. Elsewhere in the country, other municipalities, such as the City of Winnipeg and the City of Montreal were created to achieve similar results.

Supporters of an amalgamated municipality indicated that the governance structure would result in the following benefits:

- Harmonization of services to reduce risk of establishing “have” and “have-not” areas;
- Reduction of silos given that municipalities would be encouraged to collaborate;
- Reduction of competition for economic development which would decrease risks of inefficiencies and poor land use decisions; and
- Achievement of economies of scale for region-wide services, such as water and transportation (Reese, 2004).

Studies conducted on amalgamation suggest that amalgamations did not achieve all of their stated objectives, which often led to increased service costs (Reese, 2004), reduced cost savings or benefits than originally desired (Reese, 2004), and reduced sense of local identity (Miljan & Spicer, 2015). The results of these studies, as well as sustained levels of frustration expressed by their local constituents, have, on rare occasions, encouraged dissolutions to occur.

Dissolutions, in comparison to amalgamations, have occurred less frequently. Past governance structure changes have exemplified that dissolutions are not easy to complete. In a variety of examples (see **Appendix D**), dissolutions often required municipalities to complete extensive studies to determine which obligations and resources they were accountable for, as well as how they were to provide their services to residents. Not all dissolutions have been successful. For instance, in the Island of Montreal, the City of Montreal and newly established de-amalgamated jurisdictions are governed by a complex multi-level structure which has not simplified how services are ultimately provided to residents.

Given the complexity of changing governance structures it is imperative to complete a comprehensive analysis to determine whether a restructuring transaction is truly required. The following sections of the report will describe the methods used to determine the financial implications arising from various governance changes.

Overview of the local municipalities

Governance Structure

The Region and its Locals are currently governed under a two-tier municipal model. The current governance structure allows the Region to provide area-wide services, whereas the locals offer services that are more catered to their specific residents. Examples of services currently provided by each of the tiers are shown below:

Service	Peel	Locals
Water / Wastewater (sewer)	✓	
Storm water		✓
Roads	✓	✓

Service	Peel	Locals
Long-term care	✓	
Social assistance/welfare	✓	
Social housing	✓	

Service	Peel	Locals
Waste collection & disposal	✓	
Parks & recreation		✓
Police ¹	✓	
Paramedics	✓	
Fire		✓
Transit ^{2,3}	✓	✓

Service	Peel	Locals
Children’s services	✓	
Libraries		✓
Licensing		✓
Economic development		✓
Planning & development	✓	✓
Parking		✓

Note 1: Peel Regional Police serve Brampton and Mississauga, while Caledon is served by a contract with the Ontario Provincial Police (“OPP”).

Note 2: Caledon does not currently provide transit services.

Note 3: the Region provides only accessible transportation services to residents with physical, cognitive, visual, sensory or mental health disabilities.

The Region

The Region supports more than 1.4 million residents in Mississauga, Brampton and Caledon. As discussed in the Governance Structure section, the Region provides unique services that are only provided at the regional level, such as water and wastewater services. To minimize service interruptions, the Region has been actively investing in both its existing and new infrastructure. To date, the Region maintains \$13.9 billion of tangible capital assets (historical cost), but some of the municipality’s critical assets, such as those contributing to water and wastewater services will need to be replaced over the next 20 years. To minimize potential risk of incurring a significant infrastructure financing deficit, the Region has been preparing for its anticipated asset replacements through use of infrastructure levies. Based on the Region’s conservative use of tax dollars and long-term financial sustainability, the municipality has maintained its “AAA” credit rating for 22 consecutive years.

Mississauga

Mississauga is responsible for managing and maintaining \$10.1 billion of capital assets (based on historical cost), and has identified an infrastructure financing deficit of \$1.5 billion (over the next 20 years) based on immediate needs (The City of Mississauga, 2018). Mississauga has attracted 73 Fortune 500 companies and significant industries include banking and finance, pharmaceuticals, electronics and computers, and aerospace. Standard and Poor’s has given Mississauga an “AAA- Stable credit rating” noting the strong economy and population growth.

Mississauga’s unique location and geography has created its diverse culture, with 33 waterfront destinations overlooking the Lake of Ontario, 520 parks and woodlands, and 18 libraries. Along with a heritage museum, art installations across the city, and a city center to promote its diversity and culture. Mississauga also hosts a multitude of different recreation facilities and sports arena’s for different events and their local sports teams. Furthermore, Mississauga is home to the third-largest transit system in Ontario “MiWay” and Metrolinx is currently planning and developing a light transit railway system in the City. Moreover, the City is serviced by 7 major highways and is home to Canada’s largest international airport, which has helped Mississauga continually increase economic activity.

Brampton

Brampton is responsible for managing and maintaining \$5.2 billion in capital assets (based on historical cost), but estimates that it has an infrastructure financing deficit of \$743 million over the next 10 years based on immediate needs (The City of Brampton, 2018). The city is home to nearly 65,000 total businesses, including significant businesses such as Rogers Communications, FCA Canada, and Loblaw's. The city's largest employment sector is the manufacturing industry, but the retail and wholesale trade industries represent other prominent employers in the area. Brampton currently receives a "AAA – Stable" credit rating from Standard and Poor's and receives this rating because of strong liquidity and lack of long term debt.

Brampton offers its residents a multitude of different recreational facilities, several sports arenas and one multi-use secondary facilities, seven city libraries, and 6,000 acres of parkland. Brampton provides transit to its residents through its transit service, "Züm", which has enabled growth and offers numerous routes around the city and a GO station with connecting trains and buses to other cities.

Caledon

Caledon, with a population of over 65,000 residents, is the largest geographical municipality in the Region, with a land size of near 700 square kilometers. The town maintains and manages \$639 million of tangible capital assets (based on historical cost), and has an estimated infrastructure financing deficit of \$180 million over the next 10 years (The Town of Caledon, 2013) based on immediate needs. Caledon's most significant businesses include Verdi Alliance Group of Companies, Canadian Tire, and Husky Injection Molding Systems. Caledon is the only municipality in the region not to obtain a credit rating. In the future, Caledon aims to use zoning laws to attract more industries and increase economic growth.

Caledon consists of both rural farmland, and several urban communities, with 74 municipal parks, and has fewer urbanized areas and industrial space in comparison to the other municipalities in the region. Despite its population, Caledon has a robust cultural and historical environment – the town has a museum, provides its residents various recreational and fitness programs, and operates various public libraries. Caledon does not provide transit service to its residents, but its transportation needs are met by some of Brampton's transit lines, the GO Bus, and Caledon Community Services for disabled and senior residents. Caledon's policing service is provided through the Ontario Provincial Police.

General Statistical Information

Metrics	Region of Peel	Mississauga	Brampton	Caledon
Demographic Information				
Current population – 2016¹	1,381,739	721,599	593,638	66,502
Forecasted population – 2041²	1,970,000	920,000	890,000	160,000
Land area (km²)¹	1,247.0	292.4	266.4	688.2
Labour force – 2016¹	753,110	394,640	319,620	38,845
Number of occupied private dwellings¹	430,180	240,913	168,011	21,256
Jurisdiction Information				
2017 weighted assessment per capita	N/A	\$211,762	\$140,066	\$220,907

¹ This information is based on the 2016 census results (Statistics Canada, 2017).

² This information is based on the Region's updated growth forecasts (Graham-Watson, 2017).

Metrics	Region of Peel	Mississauga	Brampton	Caledon
2017 Residential tax revenue (includes payment-in lieu of taxes)	\$734,334,787	\$302,258,434	344,626,358	\$47,791,485
2017 Non-residential tax revenue (includes payment-in lieu of taxes)	\$272,006,686	\$167,755,817	105,737,010	\$12,677,719
S&P credit rating	AAA	AAA	AAA	Not Rated

Key Revenue Streams

In Canada, municipalities raise their revenues using multiple sources, which include property taxes, utility rates, user fees, senior government grants, donations, and DCs. For the purposes of this analysis, property taxes, utility rates, and DCs will be assessed in greater detail as these revenue streams are ones that the municipality directly controls or influences and have significant impact on taxpayers.

Property tax in the Region consists of three components which represent the Local, the Region, and the Province of Ontario ("the Province")'s share (for education) of revenues. Each of these portions is based on the budgetary needs of the jurisdictions, as well as the Province's education funding requirements. In the Region, the Locals have the authority to set their own tax ratios – this approach is unique to the Region in the province.

For the purposes of this analysis, the Province's education funding requirements were excluded given that they were not considered to be a differential that was subject to change under the proposed governance structure changes. The tax rate is expressed as a percentage of a property's assessed value, and is dependent on the property classification. Different tax rates are applied to different property classes to share tax burden among specific taxpayer groups. In general, commercial, industrial and multi-residential properties pay higher taxes than residential properties.

Utility rates fund water and wastewater expenditures within the Region. The Region sets its rates based on anticipated water consumption volumes which take large commercial water users into account.

DCs are one-time fees levied by municipalities on new residential and non-residential properties to help pay for a portion of the growth-related capital infrastructure requirements. DCs are determined and accounted for by service line. For most municipalities, growth-related spending authority is approved annually as part of the municipality's budgeting process with only those capital projects included in the current DCs Background Study (refer to **Appendix D** for further details of these studies) being eligible for funding.

As per the Province of Ontario's Development Charges Act, 100% of growth-related capital costs for services, such as water, wastewater, storm and roads can be recovered from DCs subject to a number of limitations. All other eligible services, however, are subject to a 10% discount so that a portion of the costs are borne by municipalities. DCs and any associated deductions serve to isolate which of the infrastructure costs can service growth and development to minimize the impact on existing taxpayers.

DC calculations are guided by the requirements of the Development Charges Act which provides for a number of reductions, deductions, service limitations, and exemptions on certain types of development. As a result, they do not recover the full cost of development. Generally, DCs only recover 75%-80% of the growth-related costs (after identification of other considerations such as Benefit to Existing ("BTE") development, which represent non-growth related costs, and Post Period Benefit, which represent costs that would be internally funded but eventually recovered from external developers).

Growth within a municipality must consider both residential and non-residential (industrial, commercial and institutional) development. Growth allocation is, therefore, specific to the individual municipality. Each of the municipalities' growth amount, type, and location (including residential/non-residential benefit) would need to be considered on a standalone basis.

Methodology

Overall Financial Analysis

Overview of the Approach

Financial Analysis for Dissolution, Amalgamation and Efficiencies

To determine the financial implications of restructuring the Region’s current governance structure, each of the options (i.e. efficiencies, amalgamation, and dissolution) were assessed using a four-step approach noted below:

1: Design the framework

- Review consolidated expenditures for 2017 and identify significant services provided by the Region and the Locals
- Determine reasonable delivery models for significant services under each scenario

2: Compile the data

- Develop a deep understanding of the in-scope services through review of financial data (e.g. budgets, financial information returns, and financial statements)
- Explore potential approaches with the Region’s employees, and gather their input regarding key assumptions which could be used
- Consider past experiences presented by case studies

3: Develop assumptions

- Consider how changes in the overall service delivery model would financially impact the Region and the Locals, as well as the overall services
- Determine key areas, which would be significantly affected by the proposed options, such as changes to the ownership of tangible capital assets, allocation of long-term debt, and personnel

4: Analyze implications

- Integrate assumptions with key findings identified in steps 2 and 3 to consider the financial implications over a 10-year period
- Translate the financial impacts of each of the options by illustrating how they will impact the individual taxpayer / ratepayer, as well as the Region’s current credit rating

Step 1: Design the Framework

All services (including Ontario Works and childcare) were analyzed using a common, standardized approach as it related to FTE, asset, debt and reserve allocations, other expenses outside of FTE, and capital expenditures, as referenced in the assumptions in **Appendix A**. Some services, however, were reviewed in greater detail given that they were perceived to significantly influence the municipalities’ total tax requirements. To help determine which services required more detailed analysis, the Region and the Locals’ FIRs were consolidated and then assessed to identify the services which would be most affected by the governance changes, as well as generated a significant proportion of the overall costs and was accountable for a large proportion of tangible capital assets.

Based on the above review, the following services were considered for further analysis:

Amalgamation	% of Net Expenditures	Dissolution	% of Net Expenditures
Transit	11%	Water and Wastewater	11%
Roads	9%	Police services	11%
Parks and recreation	8%	Roads	9%

Amalgamation	% of Net Expenditures	Dissolution	% of Net Expenditures
Corporate management	5%	Housing services	5%
Fire services	5%	Waste Management	4%
Remaining services – each	<1-4%	Remaining services – each	<1-4%

For efficiencies, a modified approach was used whereby services were compared to alternate service delivery models, such as shared service centres or centralized models. When services were considered to have potential duplications, it was scoped-in for further analysis. Alternate service delivery models were ultimately considered as the deciding factor as voluntary collaboration often led to improved economies of scale (Slack & Bird, 2013).

Step 2 and 3: Compile the Data and Develop Assumptions

These two stages were performed concurrently based on the data which was acquired. In particular, data from FIRs, budgets, asset management plans, case law and arbitration results, and case studies allowed global assumptions to be identified and developed.

Global assumptions, which were applied consistently in all assessed options, included:

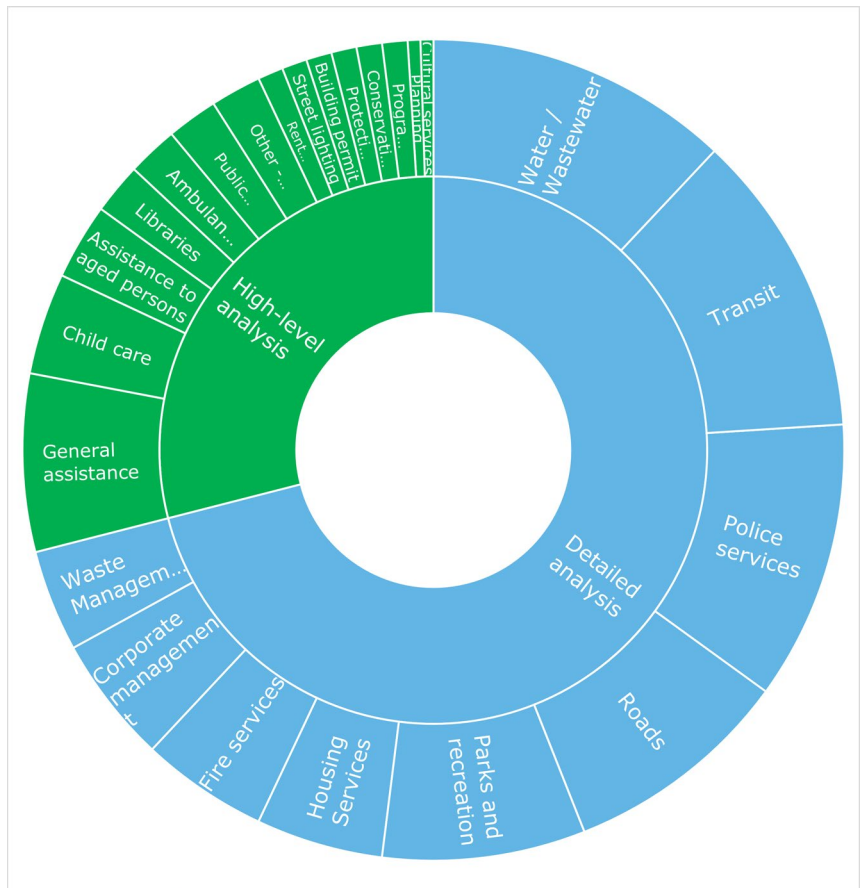
- Exclusion of service level harmonization;
- Growth rates applied to forecast changes in revenues and expenditures;
- Types of services which were considered to be unique to a specific jurisdiction or completed by more than one jurisdiction; and
- Rates used to estimate compensation and severance costs, including harmonization of salaries and wages.

A detailed list of assumptions used is available in **Appendix A**.

Step 4: Analyze Implications

In general, the financial analysis considered how the Region and the Locals would be affected by the various governance models. This required the financial analysis to incorporate key elements, which included impacts on:

- Personnel – to identify redundant or duplicated Full Time Equivalent (“FTE”) positions or cases where more FTEs would be needed, such as in the case of dissolution;
- Other income statement areas – to assess whether additional costs would be incurred to support a specific restructuring transaction;



- Assets and their associated expenditures – to determine whether the transfer of assets would adversely affect the financial viability of a jurisdiction, especially in situations where additional capital costs could limit an area’s ability to fund all anticipated spending without resorting to use of external funding sources, such as long-term debt; and
- Contracts – to explore whether any of the scoped-in services had contracts that were subject to significant early termination clauses.

Costs associated with the key elements, when identifiable, were embedded into the financial analysis to forecast how the municipalities would need to respond by adjusting their property taxes, utility rates, or DCs. Based on the financial forecasts, the results were translated into key outputs to summarize how each of the governance models would impact a taxpayer or an external credit rating agency.

Outputs of the Analysis

Key outputs of the analysis include:

Resident Impact

- Property Tax Per Average Home Value of \$484,000
- Utility Rates Per Average Household Water Consumption of 290 m³

Total Impact

- Total property tax paid by each jurisdiction
- Total utility rates charged by each jurisdiction

Municipal Financial Metrics

- Debt to Operating Revenue
- Interest Expense to Operating Revenue
- Operating Balance to Operating Revenue
- Operating and Capital Balance to Total Revenue
- Annual Repayment Limit
- Net Debt

Dissolution

The following is an analysis of the service lines that would be most affected by the dissolution of the Region of Peel. The Dissolution scenario was calculated assuming that all of the services of the region would be pushed down to the locals, where possible. In cases where a downloading of services would not be reasonable, alternative dissolution strategies were used (i.e. Water and Waste Water).

Upon dissolution, there would be one-time transitional costs for areas such as governance, planning and implementation, community and staff engagement, legal due diligence, accounting and finance due diligence, and information and communication technology. However, due to the lack of data around these costs available to the Region, we did not quantify this in our analysis.

Water/Wastewater

Summary of Regional Services

Currently, water and wastewater services are being performed at a regional level. Water services entail the treatment, distribution and transmission of water across the local municipalities. Wastewater services entail collection/conveyance along with treatment and disposal.

The current state of these services from the 2017 FIR is provided below:

Current State	
(000's)	Peel
Operating Expenses (Opex)	\$426,844
Revenue	\$408,838
Net Book Value of Tangible Capital Assets	\$7,333,439
Construction In Progress	\$786,436

Under dissolution, we explored three options on how the service could be dissolved:

- Option 1: The formation of a joint utility board
- Option 2: Form a joint utility board for significant assets, but download smaller linear assets (e.g. distribution/collector assets) to local municipalities (Wholesale, retail model)
- Option 3: Select one municipality to provide the water and wastewater services to the other local municipalities

Based on a discussion with the Region's Management, Management concluded that a joint utility board would be the base assumption for water and wastewater assets that would be undertaken by the locals on dissolution, as there are examples across Canada and Ontario where joint utility boards manage water and wastewater assets. In addition, this model was considered to cause less financial impacts on the average taxpayer. A wholesale-retail model would be examined under a sensitivity analysis.

Asset Allocation

Under a joint utility board, all of the assets and liabilities related to water services currently residing with the Region of Peel would be assigned to the joint utility board. At the end of the fiscal year, the joint board would be proportionately consolidated by the locals, which would likely be determined based on water consumption by local municipality.

FTE Impact

Similarly, all of the FTEs residing with the Region of Peel designated under water services will be assigned to the joint board. As such, we are assuming that there are no harmonization costs, no severance payments and no changes to the composition of FTE in this scenario following dissolution.

Other Operating Costs (Excluding FTE’s)

The ongoing operational costs for administering the joint board will be allocated to the three local municipalities upon proportionate consolidation. We estimate these operational costs to be 1.2% of total water services operating expenses. This would translate to additional costs of \$5.1 million in the 2017 baseline year, which would total \$72.8 million over the 10-year period based on past case studies (Queensland Treasury Corporation, 2012).

Capital Expenditure Impact

No significant impacts related to capital expenditures were identified as a differential in the dissolution option.

Contractual Rights & Obligations

We have noted that the Region has privatized part of its water services, and has a significant contract with the Ontario Clean Water Agency (OCWA) to operate and maintain their water treatment plant. Under a joint utility board model, we have assumed that this would not trigger any termination penalties and that the contract with OCWA could continue similar to how the service is delivered in the current state. Based on this assumption, there is not expected to be a significant impact by moving to a joint utility board.

Police

Summary of Regional Services

In the current state, police services for Mississauga and Brampton are being performed at a regional level. Peel has contracted out police services in Caledon to the Ontario Provincial Police (OPP).

The current state of services from the 2017 FIR is provided below:

Current State	
(000’s)	Peel
Opex	\$419,152
FTEs	2,811
Part-time Employees	95
Revenue	\$41,794
Net Book Value of Tangible Capital Assets	\$154,049
Construction In Progress	\$15,189

In analyzing police services under dissolution, we have assumed that Caledon will assume the Region’s contract for their police services with OPP, and that minimal impact will occur as a result of this.

There are several examples of large cities in Ontario such as London and Barrie who maintain police presence at a local level. Given that Mississauga and Brampton are larger than these cities, we would assume that upon dissolution, rather than having one joint board for the two municipalities, they would maintain their own governance boards for their respective municipalities.

Asset Allocation

Under this governance structure, we have assumed that existing assets owned by the Region of Peel related to police services would be allocated to Mississauga and Brampton based on the location of where these assets reside. Upon this initial allocation, \$93.9M would be allocated to Mississauga and \$54.4M would be allocated to Brampton. In order to right-size the assets upon dissolution at both Mississauga and Brampton, the following investments would need to be made (refer to **Appendix A** for the assumptions used):

Category	Mississauga	Brampton
Building Improvements		\$4.4M
Buildings		\$12.7M
Equipment & Furnishings	\$34.0M	
Land		\$7.2M
Land Improvements		\$1.5M
Leasehold Improvements		\$0.5M
Work in Progress		\$2.2M
Total	\$34.0M	\$28.7M

FTE Impact

In analyzing the FTE impact, it has been assumed that there would need to be additional management staff on-boarded to oversee the service delivery. This would translate to \$47.5M in Mississauga, and \$50.9M in Brampton over the 10-year period.

Other Operating Costs (Excluding FTE's)

No other operating costs were identified as a differential in the dissolution option. The municipalities, however, could consider creating a shared service agreement whereby corporate functions, such as payroll and finance, could be completed by a centralized function. The exact benefits or costs could not be quantified for this report given that this data was not available at the time of this report.

Capital Expenditure Impact

Upon dissolution, additional capital expenditures of \$108.0M for the 10-year period would be required over and above the Region of Peel's forecasted capital expenditures for Police Services as there would be increased infrastructure costs associated with maintaining the additional assets purchased upon dissolution (refer to **Appendix A** for the assumptions used).

Contractual Rights & Obligations

Under a dissolution option, Brampton and Mississauga would negotiate their own police contracts, and Caledon would continue to assume their existing contract with the OPP.

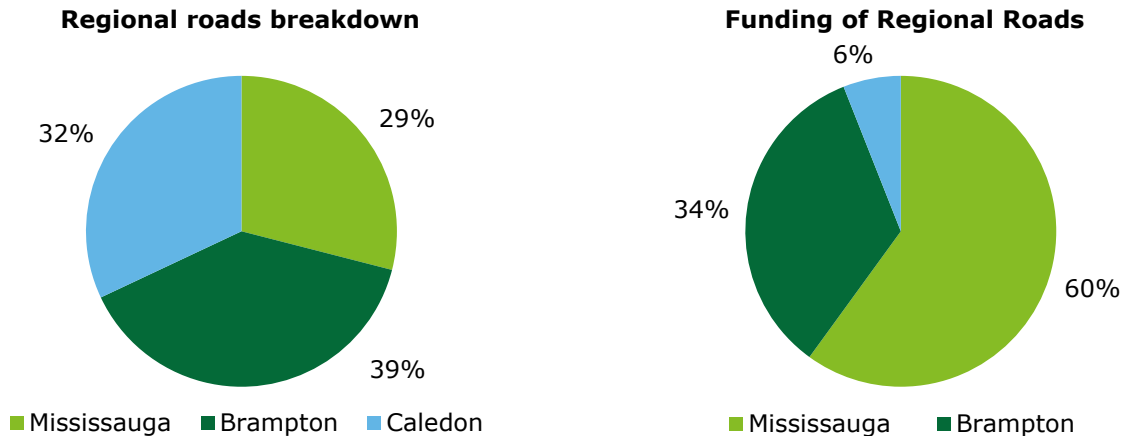
Roads

The analysis of Regional roads has been derived from a 2017 report by Deloitte to the Region on the financial implications of transferring Regional Roads.

Summary of Regional Service

The Region is responsible for building, managing and maintaining arterial regional roads (designed and maintained for traffic movement), while the local municipalities are responsible for managing the local roads (provide access to and from properties). A key point in the 2017 Deloitte report was that Arterial roads managed by the Region by lane KM are not aligned to the weighted assessments in which the local municipalities fund regional roads.

The Region currently spends approximately \$82M (based on 2017 FIR) on operating expenses, which a significant portion (approximately 50%) relates to contracted services, while only 10% relate to salaries and wages. Roads are a capital intensive business, with the Region budgeting for \$131.2M for capital related expenditures in 2018.



Asset Allocation

Dissolution of the Region would require that Regional roads would be allocated to each of the local municipalities based on the lane km that were in each of the jurisdiction. Lane kilometres per jurisdiction has been determined to be the most reasonable asset allocation methodology as each municipality would now be responsible for the lane kilometres that are located within their own jurisdiction.

FTE Impact

In the 2017 Deloitte Report on Regional roads, Deloitte worked with each municipality to determine the number of FTE’s that would be required to service Regional roads. Through that report, Deloitte noted that the following FTE’s would be reallocated on a download of Region roads staff to the local municipalities:

Region of Peel	Brampton	Caledon	Mississauga	Net Impact
(147)	69	43	38	3

Given that each municipality already had a roads department, the Region and Local municipalities estimated that the FTE impact from transferring Regional Roads would be minimal.

The report identified that it was expected to cost \$2.8M more to download Regional roads, mainly due to increased costs in Caledon to expand its road program. Included in the \$2.8M incremental operating cost, it is noted that \$1.4M of those costs were related to Regional staff (who would not be made available to the local municipalities) that had to remain at the Region to maintain regional traffic planning and coordination amongst the municipalities. The 2017 report did not contemplate a full dissolution of the Region, and therefore the \$2.8M of incremental costs would be reduced by \$1.4M due to the elimination of those regional functions that could not be allocated, resulting in a reduced incremental cost of \$1.4M annually to operate regional roads at the local level. The incremental costs is mainly derived from staffing harmonization costs.

Other Operating Costs (Excluding FTE’s)

No other operating costs were identified as a differential in the dissolution option.

Capital Expenditure Impact

No significant impacts related to capital expenditures were identified as a differential in the dissolution option.

Contractual Rights and Obligations

It is assumed that since each local municipality has existing contracts with service providers and their own internal staff to service their roads, these contracts could be used to service a download of regional roads. Therefore, it is expected that there will be minimal financial impact from contracts as a result of transferring regional roads to the local municipalities.

It is important to note however that there are expected to be significant DCs impacts as a result of transferring regional roads. Based on the most recent DC study by the Region (in 2015), it was estimated that approximately \$10.8M of DC revenue that was expected to be collected by the Region would be put at risk as a result of downloading Regional roads to local municipalities. This risk would therefore lead to an increase in property taxes in order to recover regional roads' expenditures.

Waste Management Services

Summary of Regional Service

Waste management services can be divided into Collections, Processing and Disposal. In the current state, waste collections and disposal are privatized and sourced through independent contracts. The Region maintains an integrated waste management facility located in Brampton which is the largest asset relating to the processing function. The current state of services from the 2017 FIR is provided below:

Current State

(000's)	Peel
Opex	\$162,676
Revenue	\$21,759
Net Book Value of Tangible Capital Assets	\$59,409
Construction In Progress	\$203

In a dissolution scenario, collections and waste disposal would continue to be privatized, but new contracts would need to be negotiated at a local level. Waste processing would need to be assumed at a local level.

Asset Allocation

The most significant asset related to waste processing is the integrated waste management facility located in Brampton. Given the difficulty of dividing an asset that is unique and expensive in nature, the facility would likely be allocated to Brampton based on geographical location. In turn, Brampton would need to enter into a service delivery contract with Mississauga and Caledon to provide discounted waste processing services to compensate for receiving control of the asset. All associated debt and reserves relating to this facility would be allocated to Brampton as well.

Upon dissolution, it is important to note that the landfill closure and post-closure liability associated with both active and closed landfill sites would need to be allocated to the Locals. As of December 31, 2017, the Region managed twenty landfill sites – nineteen of which were closed – and recognized an associated \$37.8 million in liabilities in the financial statements. Site specific balances were not identifiable for us to accurately determine each Local's share of the landfill closure and post-closure liability. However, in the event a dissolution occurs, the landfill liabilities would need to be allocated to the Locals using weighted assessment value as established by case law and arbitration results (for further details please refer to **Appendix E**).

FTE Impact

All FTEs currently supporting the integrated waste management facility would be assumed by Brampton. These costs would be incorporated in the amount recovered from Mississauga and Caledon.

Other Operating Costs (Excluding FTE’s)

A key consideration under this scenario would be termination costs associated with existing waste management contracts at the Region of Peel. Using an assumption that terminating these contracts would involve a penalty of 3 months service cost, the total one-time transition cost would be \$18.4 million based on the 2017 baseline FIR.

Another key consideration under this scenario would be the increase in the cost for contracted services for the local municipalities as a result of having to negotiate new independent contracts for solid waste disposal with reduced purchasing power. Assuming a 6.8% increase in rates, which was developed based on an estimate from the Region, this would translate to \$3.4 million in additional expenses based on the 2017 baseline FIR, which will translate to \$41.4 million over the 10-year period.

There would be a similar increase in the cost for contracted services related to waste collection as well. However, due to the lack of data around the volume discounts available to the Region, we did not quantify this in our analysis.

Capital Expenditure Impact

Upon dissolution, capital expenditures incurred related to the integrated management facility would be incurred by Brampton. This cost would be taken into consideration in determining the rates Mississauga and Caledon would pay to Brampton to act as a service provider.

Contractual Rights & Obligations

Refer to Other Operating Costs (Excluding FTE’s) for details surrounding contractual rights & obligations.

Housing

Summary of Regional Service

In the current state, housing is being performed at a regional level. The current state of services from the 2017 FIR is provided below:

Current State	
(000’s)	Peel
Opex	\$144,144
FTEs	527
PTEs	769
Revenue	\$48,646
Net Book Value of Tangible Capital Assets	\$587,029
Construction In Progress	\$5,647

Asset Allocation

Under a dissolution scenario, a key consideration is how the assets in this service line would be allocated to the local municipalities. For assets in this particular service line, they would need to be allocated based on the location of where these assets reside. Based on this model, \$370M would be allocated to Mississauga, \$189.5M would be allocated to Brampton and \$27.4M would be allocated to Caledon. To ensure consistency, the allocation of debt would mirror where the assets are allocated. Based on a review of the assets being

allocated to each of the local municipalities, it is assumed that there are no additional assets that would need to be purchased to maintain service levels for this service line upon dissolution.

FTE Allocation

From an FTE perspective, when this service is downloaded to the local levels, there would need to be additional management staff on-boarded to oversee the service delivery. This would translate to \$4.2M in Mississauga, \$2.4M in Brampton and \$0.4M in Caledon over the 10-year period. With respect to front line staff, the existing staff at the Region of Peel would need to be allocated to the three municipalities; it is assumed that no additional front line staff will need to be on-boarded to maintain service delivery as existing front line staff are already aligned to provide services by location.

Other Operating Costs (Excluding FTE's)

No other operating costs were identified as a differential in the dissolution option.

Capital Expenditure Impact

No significant impacts related to capital expenditures were identified as a differential in the dissolution option.

Contractual Rights & Obligations

Under a dissolution option, all of the local municipalities would negotiate their own contracts.

Development Charges

Disclaimer

The following section was supplied by Watson & Associates Economists Ltd.

Tax-supported Services

Under the dissolution scenario, it is anticipated that there will be an increase in tax-supported costs over the 10-year period of approximately \$186.2 million or an increase of 21% relative to the status quo. A major driver for the shift in growth-related costs over to the tax payer is the benefit to existing development cost on roads.

For an example, under status quo, if a new growth-related regional road was planned in North Mississauga as a result of growth in Mississauga and Brampton, all growth in the region may be considered in the DC calculations. However, under a dissolution scenario, Mississauga may only consider growth within its borders when determining the growth-related share of the costs. As a result, the growth-related share of the costs would decrease, which would shift the costs over to the tax payers. Deloitte's 2017 roads analysis supports this view, especially as the study determined that \$10.8 million of costs would be transferred from DCs to taxpayers on an annual basis based on the estimated reduction of DC revenues in a dissolution scenario.

Rate-supported Services

Two scenarios were reviewed for the dissolution scenario with respect to water and wastewater service delivery.

1. Local Board – for this scenario, it was assumed that all water and wastewater services would be administered by a local board comprised of the local municipalities. Additionally, the local board would be responsible for all assets, no matter the location. As a result, it was anticipated that there would be no change in the DC revenues or rate-supported costs relative to the status quo.
2. Wholesale/Retail Model – for this scenario, a wholesale/retail service delivery model was assumed where a local board would be responsible for all treatment and major transmission/feeder main services and assets. Each local municipality would then be responsible for the localized pipes/assets located within their jurisdictions. The Region's DC capital program was divided into those capital projects that would be the responsibility of the local board vs. each of the local municipalities. As a result, it was anticipated that there would be an additional \$4.3 million (or 6.9%) in additional rate-supported costs relative to the status quo. As discussed above with tax-supported services, the

increase in rate-supported costs is a result of the shift from growth-related to non-growth-related costs due to growth now only being considered within each local municipality versus region-wide.

Summary of Financial Analysis

The following tables summarize how each of the two scenarios examined under dissolution impacts tax-supported and rate-supported costs.

Dissolution – Local Board Model

Summary of Tax-supported Costs (2018-2027)

Costs by Municipality (\$000s)	Status Quo	Dissolution	Change (\$)	Change (%)
Local Board	\$297,814	-		
Mississauga	\$279,305	\$379,528		
Brampton	\$199,025	\$543,639		
Caledon	\$108,886	\$148,029		
Total	\$885,030	\$1,071,196	\$186,166	21.0%

Summary of Rate-supported Costs (2018-2027)

Costs by Municipality (\$000s)	Status Quo	Dissolution	Change (\$)	Change (%)
Local Board	\$63,171	\$63,171		
Mississauga	-	-		
Brampton	-	-		
Caledon	-	-		
Total	\$63,171	\$63,171	-	0.0%

Dissolution – Wholesale-Retail Model

Summary of Tax-supported Costs (2018-2027)

Costs by Municipality (\$000s)	Status Quo	Dissolution	Change (\$)	Change (%)
Local Board	\$297,814	-		
Mississauga	\$279,305	\$379,528		
Brampton	\$199,025	\$543,639		
Caledon	\$108,886	\$148,029		
Total	\$885,030	\$1,071,196	\$186,166	21.0%

Summary of Rate-supported Costs (2018-2027)

Costs by Municipality (\$000s)	Status Quo	Dissolution	Change (\$)	Change (%)
Local Board	\$63,171	\$21,744		
Mississauga	-	\$15,500		
Brampton	-	\$24,604		
Caledon	-	\$5,654		
Total	\$63,171	\$67,502	\$4,331	6.9%

Amalgamation

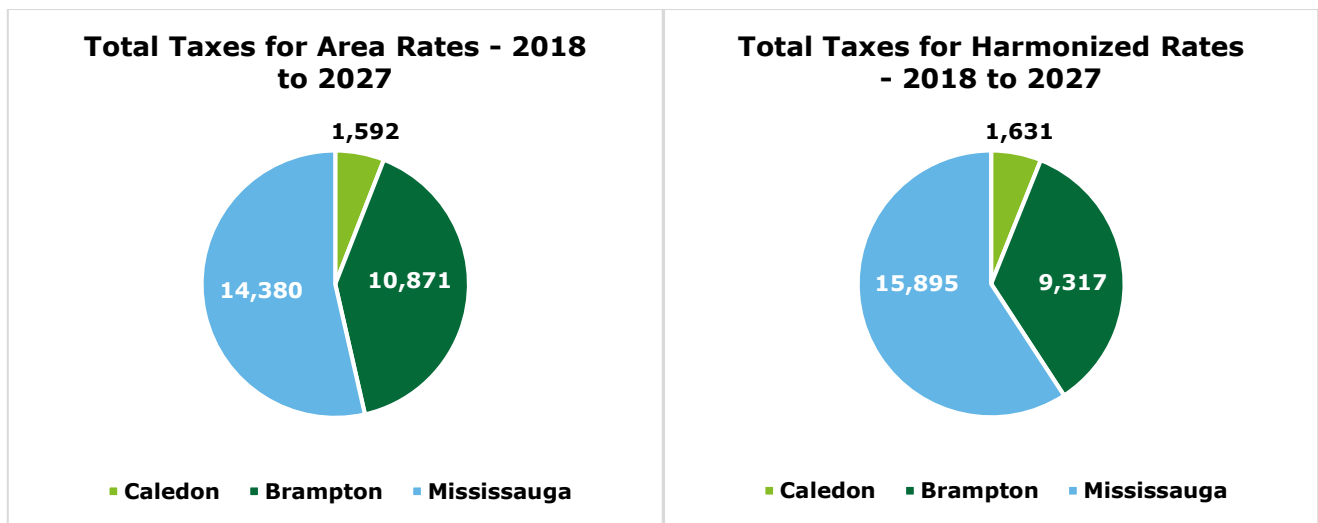
Tax rates under amalgamation

Under the current taxation structure, the Region’s tax burden is allocated amongst different property classes using tax ratios that are determined by each local municipality. Therefore, it creates a situation where residential and non-residential taxpayers share a different proportion of the tax burden depending on which local municipality is examined.

Once amalgamation occurs, the two-tier governance model would be eliminated. In certain situations, this may require the Locals’ tax ratios and tax rates to be harmonized.

In the event tax ratios and tax rates are harmonized, the new city would be required to harmonize existing service levels and therefore, increase taxes. Past case studies, however, such as the example in Headingly, Manitoba, indicated that not all residents are receptive to tax rate increases that results from service harmonization. To ensure that each of the amalgamated municipalities have time to transition to the new model, as well as identify the right service levels for its residents’ needs, a harmonized tax ratio and rate are ultimately not advised to be in effect in the initial years of amalgamation. In certain scenarios, Watson & Associates Economists Ltd. noted that municipalities harmonized their property tax rates after a 10-year period had elapsed.

Harmonized tax ratios and tax rates (based on data supplied by the Region) when compared to the use of area rates are predicted to increase taxes for Mississauga and Caledon, and decrease taxes for Brampton. These results are illustrated in the below graphs:



Detailed Review of Services

On amalgamation, the services provided by the locals are assumed by the Region, and there is a potential to eliminate duplication of administration of those services. Amalgamation assumes that a new “City of Peel” would be created by combining all of the services of the Locals and the Region into one. The governance structure would include just one Council and management team.

Transition to an amalgamated governance model will require both time and resources. The new city would be required to consider how it would respond to decisions impacting:

- Responsiveness to taxpayers: in an amalgamated model, the new city would be required to consider the size and composition of its governing body to ensure that all areas continue to be represented and taxpayers have a clear line of sight into who they can contact for their concerns;
- Harmonization of service levels: the new city would need to assess the level of taxpayers’ interest in harmonizing service levels, especially as not all of the Locals’ service levels have been consistent for all services. For instance, residents of Caledon previously did not have a dedicated local transit service, but in the new governance model, these taxpayers may be interested in receiving these services, especially if they will be required to pay for the associated costs;
- Current policies and processes: the new city would be required to consider whether its existing policies and processes remain relevant under the new governance model. In addition, the new city would need to consider miscellaneous costs for items, such as its corporate brand and maps; and
- Impacts to existing employees: the new city would be required to consider how it would support its employees to accept a new corporate culture, as well as changes to their existing roles and responsibilities. Costs, such as harmonized salaries and wages or termination benefits, would need to be recognized, especially if discussions with unions are required to finalize these amounts.

Based on recent reviews of past amalgamations in Ontario, researchers noted that municipalities should not rush into an amalgamation given that it could trigger a series of risks for the new city to address (Miljan & Spicer, 2015). In particular, when amalgamations were rushed, this limited the municipalities’ ability to assess critical factors, such as how the costs of restructuring would be funded and whether service levels and wages need to be harmonized upwards (Miljan & Spicer, 2015). As a result, amalgamation would require further analysis and planning to ensure that the new city can operate in the most efficient and effective manner.

In this report, the general approach to amalgamation was to combine services and reduce management and administration, while keeping service levels constant for each local municipality. The following is the summary of the results of the more significant service lines.

Corporate support services

Summary of service

	Current State				
(\$000’s)	Peel	Mississauga	Brampton	Caledon	Consolidated
Opex	\$57,204	\$60,639	\$63,703	\$9,369	\$190,915
FTEs	736	1,154	488	96	2,474
Part Time Equivalents (PTEs)	107	189	107	4	407

Corporate support services consists of the back office functions that a municipality provides to ensure the other services of the City are operating at an efficient and effective level. This includes finance, legal, human resources, information technology (IT), communication, corporate performance and innovation, revenue and material management, purchasing, customer service, elections, printing and mail services, council and chief administrative office support.

Asset Combination

The amalgamation of corporate services would result in corporate support services being combined into one function. While amalgamation will result in redundant assets (the need for 1 system instead of 4), we have assumed that these redundant assets will not generate significant cash flow as they are not believed to be assets that could be sold or would have residual value after amalgamation. Additionally, based on the case studies examined, assets that are citizen focused, such as buildings and city halls are usually kept and repurposed (if necessary), due to the fact that these assets provide direct access and support to citizens. In

In 2014, the City entered into a capital lease arrangement (the "agreement") on a building in downtown Brampton as part of the Southwest Quadrant Renewal Plan.

The agreement requires equal monthly lease payments over a period of 25 years until 2039. At the expiry of the agreement, the legal title of the building will be transferred to the City.

Annual lease payments under the agreement are as follows:

2018	\$ 8,354
2019	8,354
2020	8,354
2021	8,354
2022	8,354
2023 and Thereafter	138,527
<hr/>	
Total minimum lease payments	\$ 180,297
<hr/>	
Less amount representing implicit interest at 7.59%	91,700
<hr/>	
Capital lease obligation	\$ 88,597

In 2017, the interest expense of \$6,785 (2016 - \$6,900) is reported in the consolidated statement of operations.

For the purposes of this analysis, while we believe that some cost savings will occur through amalgamation as a result of an increase in purchase power, and the impact of consolidated effort across the amalgamated entity, we have not quantified any of these savings in the analysis. We believe that further analysis should be undertaken by the Region to determine what real savings could be achieved, noting that some procurements are purchased through the province (IT) and others are already jointly purchased (fuel) with the local municipalities.

Capital Expenditure Impact

Through the review of capital budgets and analysis, we did not identify significant impact to capital expenditures in corporate support services.

Contractual Rights & Obligations

From our review, we believe a more in depth analysis would be needed on amalgamation to determine the appropriate service delivery model for some of the contracted services. While there are some significant contracts that exist within corporate services, there are likely to be implications in those contracts that could not be analyzed during this engagement as we did not contact the local municipalities to discuss the implications of the defined scenarios.

carrying out our review of significant local assets, we noted that the New City Hall in Brampton would likely continue if amalgamation occurred. This was built under a private public partnership model and Brampton pays approximately \$9 Million per year to the private builder for this asset. Typically these contracts are difficult to terminate, especially if ownership is transferred at the end of the arrangement. This is an example of an unavoidable cost that will be encountered in any scenario. Therefore, our analysis does not factor in significant savings or significant additional costs from combining assets.

FTE Impact

Upon amalgamation, management level positions for back office functions would be made redundant. The net savings of eliminating these positions, including the severance payment costs, is \$194 million. Wage harmonization for merged personnel would also occur – this estimated increase is \$345 million.

Other Operating Costs (Excluding FTE's)

Transit and TransHelp Summary of Service

(000's)	Current State				
	Peel	Mississauga	Brampton	Caledon	Consolidated
Opex - Conventional	\$13,843	\$216,206	\$179,571	\$51	\$409,671
Opex - TransHelp	\$25,972	--	--	--	\$25,972
Revenues, including grants	\$2,064	\$120,751	\$70,021	--	\$192,836
FTEs	92	1,282	1,079	--	2,453
PTEs	34	43	70	--	147
Net Book Value of Tangible Capital Assets	\$4,333	\$258,055	\$182,038	--	\$444,427
Construction In Progress	\$13,138	\$34,518	\$57,719	--	\$105,375

The majority of transit services provided in the region is provided by the local municipalities, with the exception of the TransHelp service, which is currently provided regionally. Transit in the region is one of the largest operating costs amounting to 12% of the net combined 2017 operating expense. In 2017, transit in the Region provided a combined 67 million service passenger trips. The Town of Caledon does not provide transit services, and incurred a small cost in 2017 for contracted services which was not investigated as part of this report.

Asset Combination

Transit's assets, which consist mainly of buses and facilities, are needed to maintain services and as a result, will not be affected under an amalgamation. No significant impacts related to asset consolidations were identified as a differential in our analysis.

FTE Impact

Based on the data on our review and the data that exists, we did not identify any items that would require us to deviate from our baseline approach. FTE reductions would theoretically occur at the management level, which has been estimated to be \$13.5 million. These savings are then offset by expected wage harmonization costs, which would increase wages by \$42.9 million, and result in a net cost on amalgamation of \$29.4 million over the 10-year period.

Other Operating Costs (Excluding FTE's)

The combined City would see former Caledon residents demanding some form of public transit services but the assumption under amalgamation is that services levels would remain as is so these addition costs are qualitative only and not considered in the financial analysis. Currently Brampton provides some service to Caledon through buses that cross into Caledon. During our review it was noted that Caledon is currently undertaking a transit study to assess the merits of providing transit to the region, however we were unable to determine the expected cost of providing transit services to Caledon. It is worth noting that Caledon asked its citizens for feedback to determine if they would be willing to accept a \$20-40 increase in property taxes to fund transit costs – 62% of residents supported this option (The Town of Caledon, 2019). The forecasted range of increasing taxes is \$442,000 to \$884,000 per year for 22,100 households.

Capital Expenditure Impact

All expected capital expenditure projects would continue under an amalgamation scenario.

Contractual Rights & Obligations

All current transit contracts at the local level would be assumed by the new City until they expire. The union collective agreements would need to be renegotiated by the larger City on expiration and future negotiations with unions would be impacted, the effect of which cannot be quantified at this time except for the harmonization of wages which were noted above.

Both Mississauga and Brampton are entering into contracts with the provincial government to build a Light rail transit along Hurontario Street. An amalgamated City would need to assume the negotiation of these contracts.

Fire Services

Summary of Service

(000's)	Current State				
	Peel	Mississauga	Brampton	Caledon	Consolidated
Opex	--	\$117,472	\$80,832	\$11,179	\$209,484
Revenues, including grants	--	\$2,092	\$978	\$924	\$3,994
FTEs	--	703	507	33	1,243
PTEs	--	1	2	--	3
Volunteers				280	280
Net Book Value of Tangible Capital Assets	--	\$88,860	\$47,269	11,082	\$147,211
Construction In Progress	--	\$881	\$9,158	\$6,944	\$8,783

Fire services are provided by the three local municipalities, with Caledon using a volunteer delivery model to support the services it provides to its residents.

Asset Combination

Based on discussions with the Region, an amalgamation was not forecasted to result in asset disposals – all assets were assumed to remain as is. The amalgamation was seen to lead to efficiencies given that the jurisdictions would be able to share equipment, such as specialty vehicles and facilities. For example, the Caledon fire plan assumes purchasing of specialty equipment and contemplates building their own training centre. Under amalgamation training and training facilities and some of this special equipment can also be shared with Caledon.

FTE Impact

One inefficiency would be that there would be a wage harmonization across the service to the highest level. There would be a reduction also in senior management and back office management support as there would only be the need, for example, for one fire chief. This reduction of management levels including severance costs could result in \$21.1 million in savings over the 10-year period. The increase in overall wage costs because of harmonization of wages to the highest range could result in \$6.1 million in extra costs over the 10-year period, the result in this case is an overall savings of \$15 million over the 10-year period.

In an amalgamation model, it is assumed that the service levels are staying the same but it should be noted that Caledon currently has volunteer fire fighters and that it would be very costly (approximately \$20 million per year) to make a portion of these 280 volunteers (Dillon Consulting Limited, 2018) into full time staff.

From a qualitative point of view, Caledon has a deep history with regards to the volunteer structure of their fire department and it would be a large cultural shift to add full time staff³.

Other Operating Costs (Excluding FTE’s)

There could be savings in purchasing supplies and services with economies of scale. Maintenance fees on assets may also decrease through a larger city. There could be savings as well by adding new technology in a combined City. Time and attendance, dispatching software, etc. could result in savings, such as overtime fees and management time doing manual processes. We currently do not have the data to quantify these types of savings but these are items to be explored in greater detail if amalgamation is explored.

Capital Expenditure Impact

All expected capital expenditure projects would continue under an amalgamation scenario.

Contractual Rights & Obligations

All current Fire contracts at the local level would be assumed by the new City. The union collective agreements would need to be renegotiated by the larger City upon expiration and future negotiations with unions would be impacted, the effect of which cannot be quantified at this time with the exception of harmonization of wages for front-line employees.

**Parks and Recreation
Summary of Service**

(000’s)	Current State				
	Peel	Mississauga	Brampton	Caledon	Consolidated
Parks	--	\$41,754	\$53,688	\$3,450	\$98,893
Recreation programs	--	\$32,970	\$7,503	\$2,802	\$43,275
Facilities	--	\$70,104	\$83,872	\$11,905	\$165,881
Revenue	--	\$29,691	\$16,956	\$5,128	\$51,775
FTEs	--	589	624	70	1,283
PTEs	--	1,582	1,629	84	3,295
Net Book Value of Tangible Capital Assets	--	\$2,259,620	\$741,752	\$61,062	\$3,062,434
Construction In Progress	--	\$34,786	\$59,217	\$1,333	\$95,336

Recreation services are currently performed by the three local municipalities. They consist of programs and activities for residents such as fitness classes, community spaces and facility rentals such as hockey rinks and meeting spaces. Amalgamation would result in a reduction of revenue due to the loss of the ability to charge non-local rates to other locals’ residents. For the purposes of our report, we have assumed that this would not have a significant impact on the analysis, but further work would be required on resident vs non-resident revenue data to quantify the impact.

Asset Combination

Existing community centres and facilities are meeting the needs of the citizens of the locals. It is assumed that all of these facilities would remain open and that no consolidations or sales would occur.

³ Caledon recently renewed its commitment to sustain the utilization of volunteer firefighters in the Fire Master Plan, which was approved by Town Council on March 20, 2018 (The Town of Caledon, 2018). Given the Town’s desire to sustain the two-hatter system, there is a risk of eliminating the volunteer firefighters in an amalgamated governance model.

FTE Impact

One inefficiency would be that there would be a wage harmonization across the service to the highest level of salary for a similar position. There would be a reduction also in senior management and back office management support. This reduction of management levels including severance costs could result in \$27 million in savings over the 10-year period. These savings will be offset by the increase in costs arising from the harmonization of wages of \$226.9 million – the combined impact of amalgamation is predicted to be \$199.9 million over the 10-year period.

It is important to note that studies have shown that when you amalgamate a more rural area with an urban centre, the rural residence demand better services, in particular in recreational programs and facilities (Miljan & Spicer, 2015). This has not been factored into the analysis.

Other Operating Costs (Excluding FTE’s)

Each local municipality manages their own parks. There could be some savings in bulk purchasing of parks materials like plants and soil, etc. For recreation there could be some buying power in purchasing equipment for programs and facilities maintenance. Also, there could be a difference amongst the municipalities as to the level of service that is performed in the parks. The assumption is that these service levels would continue under amalgamation.

Capital Expenditure Impact

No significant impacts related to capital expenditures were identified as a differential in the amalgamation option.

Contractual Rights & Obligations

All current parks and recreation contracts at the local level would be assumed by the new City. The union collective agreements would need to be renegotiated by the larger City on expiration and future negotiations with unions would be impacted, the effect of which, with the exception of wage harmonization for front-line employees, cannot be quantified at this time.

Roads

Summary of Service

The Region and each of the local municipalities are responsible for providing services to residents across the Region, based on the jurisdiction of the road and based on the type of road (most arterial roads currently are managed and governed at the Region). For amalgamation, the only scenario considered for the purposes of this analysis is one where the Region starts to operate and maintain local roads in addition to Regional roads.

	Current State (000’s)				
Roads	Peel	Mississauga	Brampton	Caledon	Consolidated
Lane Km	1,667	3,857	1,601	4,716	11,841
Operating Expenses	\$133,096	\$91,057	\$100,596	\$18,683	\$343,432
Revenues, including grants	\$4,351	\$12,087	\$3,715	\$1,731	\$21,884
Net Book Value of Tangible Capital Assets	\$1,363,546	\$4,213,558	\$1,478,292	\$150,936	\$7,206,332
Construction In Progress	\$114,057	\$75,396	\$37,130	\$5,645	\$232,228

Asset Allocation

In reviewing the types of assets and liabilities that would have to be assumed by the Region in an amalgamation, the majority of the assets supporting this service are the roads themselves. Therefore amalgamation is not expected to result in a significant redundancy of assets. From a review of the existing

balance sheets for each municipality, there are no significant liabilities that are expected to change as a result of amalgamation.

FTE Impact

Through the Deloitte 2017 Regional roads study, it was noted that the Region of Peel currently has approximately 157 FTE’s dedicated to Regional roads, with an additional 23 managers overseeing the staff, for a total staff of approximately 180 FTE’s. Through this study, Deloitte obtained the incremental cost per FTE for dissolving roads, and used the 2017 FIR for each local municipality to estimate the existing number of FTE’s in each of the roads departments.

Based on the analysis of the Ontario Public Sector Salary Disclosure, assuming that the majority of management positions at the local municipalities in roads can be eliminated on amalgamation, it is estimated that this would save the Region approximately \$4.5 million over the 10-year period in staff reductions. The savings in staff reductions would be offset by an increase of \$99.8 million in staff harmonization costs, resulting in a net increase of \$95.3 million in staffing costs as a result of amalgamations over the 10-year period.

Amalgamation will not reduce the number of roads that need to be serviced and therefore any staff reductions as a result of amalgamation have been estimated at the management level. The reduction in staff levels are offset by a significant increase in harmonization costs.

Other Operating Costs (Excluding FTE’s)

No significant impacts related to other operating costs, aside from the staff harmonization costs, were identified as a differential in the amalgamation option.

Capital Expenditure Impact

All expected capital expenditure projects would continue under an amalgamation scenario.

Contractual Rights & Obligations

A significant portion of the roads business is managed through contracts with service providers. It is important to note that the activities associated with an arterial road would be different from a local road, given that the nature of the road permits more high speed traffic. As such, for the purposes of amalgamation, it is assumed that contractual efficiencies would only exist in contracts that contain similar types of roads (i.e., local roads) with similar service levels.

Contracted Services (000’s)					
Roads	Peel	Mississauga	Brampton	Caledon	Combined
Contracted Services	\$38,500	\$29,500	\$34,700	\$1,800	\$104,500
% of Operating Expenses	29%	32%	38%	9%	30.1%
Contracted Service/Lane Kilometers	\$23,095	\$6,255	\$8,996	\$1,601	\$8,825

Development Charges

Disclaimer

The following section was supplied by Watson & Associates Economists Ltd.

Tax-supported Services

Under the amalgamation scenario, all services would be provided by the Region. As such, the capital costs for growth-related works would be incorporated into the Region’s DC background study and calculations. Over the ten-year period it is estimated that the tax-supported costs (total of the Region and each local

municipality) will decrease by approximately \$0.4 million. Overall, this shift is less than .05% and may be caused due to rounding or the averaging approach to the calculations. As an order of magnitude, no change to the tax-supported costs would be anticipated as a result of amalgamation.

Rate-supported Services

As Peel Region already provides water and wastewater services at the Regional level it is anticipated that there would be no change in the DC revenues or rate-supported costs relative to the status quo.

Summary of DC Financial Analysis

Summary of Tax-supported Costs (2018-2027)

Costs by Municipality (\$000s)	Status Quo	Amalgamation	Change (\$)	Change (%)
Peel	\$297,814	\$884,628		
Mississauga	\$279,305	-		
Brampton	\$199,025	-		
Caledon	\$108,886	-		
Total	\$885,030	\$884,628	(\$402)	(0.0%)

Summary of Rate-supported Costs (2018-2027)

Costs by Municipality (\$000s)	Status Quo	Amalgamation	Change (\$)	Change (%)
Peel	\$63,171	\$63,171		
Total	\$63,171	\$63,171	-	0.0%

Efficiencies

Through the review of the current state (or status quo), there were several opportunities that were identified that could be explored without a change in governance at the Region and Local level. The focus on this scenario was to identify services that are duplicated between the Region and Locals, or where potential synergies exist, and to quantify the impact of those efficiencies over time.

The above approach was employed throughout this section, especially as both the Region and Locals have been individually pursuing efficiencies. However, we noted that additional efficiencies could be achieved through inter-municipal collaboration and these opportunities will be explored in this section.

Corporate Support Services

Increased Use of Technologies

Demand for greater utilization of technology, including automation tools, is prevalent in both the public and private sector, especially as these assets often allow organizations to redirect their employees' attention from completing manual, repetitive tasks to more strategic activities. These trends, when applied to the region as a whole, could benefit all of the participating municipalities.

Based on technology upgrades made by the City of Toronto (Garrett, 2001), as well as inflation of the costs to today's dollars, an assumption is that \$100 million would be required to purchase and implement technologies to increase efficiency of services at the Region. Although the City of Toronto and the Region are different in terms of size and scale, the cost of these technologies have been updated to today's values and scaled. This investment amount is approximate and would require further study but is important to note as including the capital outlay for shared service is integral to the success of a transition to a shared service model (Cannon & Pagliano, 2014).

The result of implementing these technologies is assumed to reduce the front line staff by 10% based on a shared service case study (Cannon, 2017). Many of these services could be provided to the entire region under a shared service model whereby economies of scale could result in substantial savings. The Region and the Locals will need to develop a strategy as to which system platforms could be implemented – this strategy would ultimately impact the financial estimate which will require further analysis subsequent to this report.

Shared Service Model

A shared service model could benefit both the Region and the Locals. For example, a centre of excellence could be established for Legal Services, as well as certain Human Resource activities, such as training and labour negotiations. In addition, call centres could be centralized at the Region due to similarities in services that are provided by the Region and the Locals.

It is important to note, however, that not all corporate functions should be centralized at the Region. Specialized knowledge and understanding of each of the municipalities may, at times, need to be retained at either the Region or Local level.

Transit and TransHelp

One possible area of efficiency is to transfer the TransHelp service down to the local municipalities to eliminate redundant management level positions based on the assumption that the Locals' transit management personnel can oversee the newly added services. Any FTE savings (\$2.45 million over the 10-year period) would be in the integration of Peel management only with the locals.

The net book value of the TransHelp assets are \$4.3 million with \$13 million under construction for the new Mavis yard, which is physically located in Mississauga. Brampton can continue to use the TransHelp

headquarters building, which includes an indoor parking garage, for its transit vehicles. Overall, the vehicle assets would be split based on population.

Since Caledon does not currently have any public transit, they would have to provide a TransHelp service to their citizens which may increase taxes for the Town's residents. The estimated cost of accessible transportation is unknown at this time. The TransHelp drivers have been specially trained to operate the vehicles and ensure customer safety.

Fire Services

Fire services are provided in the three local municipalities. Caledon also has a volunteer fire force. There could be some efficiencies found if some of the management and back office services were merged regionally. You could consolidate the back office functions, and share expensive equipment such as specialty vehicles, maintenance, and purchasing. Training and training facilities can also be shared, as Caledon does not currently own their own facility. The use of technologies such as scheduling, time and attendance software, dispatch etc. could increase efficiencies and provide savings.

Unlike the regional police, there would not need to be a board in this scenario as it is not required by law.

Parks and Recreation Services

Under an efficiencies model, there could be some savings if parks and recreation back office and management services were delivered through a shared service model.

Efficiencies could be found by changing the people, processes and technology used by the locals. New software could increase efficiencies for parks staff around CRM, work order management and time and attendance scheduling. A new recreation software tool could be utilized that has current functionality for registration, scheduling, facilities rentals, payments, time and attendance for the employees, etc.

By utilizing a common tool and process there could be a reduction in back office staff management as a result. There could be some efficiencies as well in building additional specialized facilities as these could be planned for a larger population of citizens.

Procurement of goods and services could also be centralized so that items like planting, equipment for classes, etc. could be centralized with greater buying power.

Lastly, there could be some inefficiencies resulting from the citizens of Caledon demanding better recreational services than they have had in the past. This was noted in the Fraser Institute case study in that the more rural cities began to demand better recreation services when combined with more urban centres. This has not been factored into the analysis as we are assuming constant service levels (Miljan & Spicer, 2015).

Roads

Under an efficiencies model, there could be some savings if roads' back office and management services were brought together as a regional service similarly to amalgamation.

Efficiencies could be found by utilizing new software around CRM, work order management and time and attendance scheduling. Although these are difficult to qualify without a systems selection process in place to select the city-wide software.

Procurement of goods and services could also be centralized so that items like sand, salt, road repair materials, etc. could be purchased en masse. Negotiating contracts as a larger group could also bring down costs for hiring contractors and road maintenance. This needs to be further explored to be able to quantify savings.

Paramedic services

The Region currently provides paramedic services to all of the Locals' residents. Past studies, such as the one completed by the City of Toronto in 2013, assessed whether it would be reasonable to merge paramedic services with fire services, or to have paramedic personnel accompany firefighters on all emergency calls (Smith, 2013). The 2013 study indicated that the alternative service delivery models would not generate operational or financial benefits, especially as:

- The City of Toronto had a mature paramedic force – the report noted that a merger would only benefit paramedic personnel in the event that the entire service line was new to a municipality and could be supported by a mature fire services division;
- Paramedic and fire personnel were not cross-trained – extensive training would, therefore, be required to ensure that personnel could respond to both medical and fire emergencies; and
- Extensive investments would need to be made for existing fire trucks to ensure that they contain pre-requisite medical equipment needed to meet legislative requirements (Smith, 2013).

When the City of Toronto's study was presented to the Regional Council in 2013, the Region's management indicated that the findings from the report were generally applicable and that additional efficiency reviews were not required given that paramedic personnel would be encouraged to continue finding efficiencies through process improvements (Smith, 2013). In addition, there are operational differences between how services are delivered for fire and paramedic services. Fire services require fixed fire stations whereas paramedic services are deployed using mobile ambulance posts. Based on this study's results and differences in service delivery models, the Region is ultimately not advised to consider merging its paramedic services with its fire services.

Appendix A: Assumptions

Status Quo

- The baseline financial inputs to the analysis were derived from the 2017 FIR

Expense Growth Rates

- Functional areas that are funded through property tax revenue are expected to grow at a net rate equal to property tax revenue
- Other Functional areas are assumed to grow at CPI + Population Growth
- Household growth is assumed to be consistent with population growth
 - CPI Assumed to be 1.9%
 - Region of Peel population growth rate assumed to be 1.15% annually
 - Brampton population growth rate assumed to be 1.635% annually
 - Caledon population growth rate assumed to be 1.93% annually
 - Mississauga population growth rate assumed to be 0.5% annually

The following table summarizes how expenses will be grown on a service line basis:

Category	Region of Peel	Mississauga	Brampton	Caledon
General Government	3.05%	2.4%	3.535%	3.83%
Protection Services	5.0%	5.0%	5.0%	5.0%
Transportation Services	4.29%	4.29%	4.29%	4.29%
Environmental Services	4.29%	4.29%	4.29%	4.29%
Health Services	4.29%	4.29%	4.29%	4.29%
Social & Family Services	3.05%	2.4%	3.535%	3.83%
Social Housing	3.05%	2.4%	3.535%	3.83%
Recreation and Cultural Services	4.29%	4.29%	4.29%	4.29%
Planning & Development	4.29%	4.29%	4.29%	4.29%
Other	4.29%	4.29%	4.29%	4.29%

Revenue Growth Rate

- Property tax revenue growth rate aligned to 2018 Operating Budget for the Region of Peel. Comparable data was not provided at a local level so Peel’s growth rate is used as a proxy for the locals. For further assumptions, refer to Property tax model section.
- Utility revenues will be calculated based on the utility model. For further assumptions, refer to the Utility model section.
- Conditional Grants are expected to grow at the rate of changes in the corresponding program’s total expenditure.
- All other revenue categories are expected to grow at the rate of CPI + Population Growth Rate

The following table summarizes the revenue growth rate experienced by each revenue stream:

Category	Region of Peel	Mississauga	Brampton	Caledon
Property tax Revenue	4.29%	4.29%	4.29%	4.29%
Utility Revenue	Refer to assumptions for utility rate analysis	N/A	N/A	N/A
Ontario Municipal Partnership Fund	N/A	N/A	N/A	3.83%
Revenue from other municipalities for tangible capital assets	3.05%	2.4%	3.535%	3.83%
Revenue from other municipalities	3.05%	2.4%	3.535%	3.83%
Other User Fees & Service Charges	3.05%	2.4%	3.535%	3.83%
Licenses, permits, rents, etc.	3.05%	2.4%	3.535%	3.83%
Fines & Penalties	3.05%	2.4%	3.535%	3.83%
Other Revenues	3.05%	2.4%	3.535%	3.83%
Conditional Grants	3.05%	4.29%	4.29%	4.29%
Inc./Dec. in GBE equity	3.05%	2.4%	3.535%	3.83%

Capital Budget

- Baseline capital expenditures over the 10-year period will be derived from each municipalities' 2018 Capital Budgets.
- Infrastructure financing deficits, when not funded through the municipalities' infrastructure levies, were factored into our analysis by recognizing these as additional capital expenditures.

Other Baseline Assumptions

- Investment portfolio will remain consistent over the 10-year period
- Debt issuance and repayments based on forecast provided by Region of Peel, as the Region arranges all debt for the other local municipalities.

Property Tax Analysis

- CVA not expected to change per residence / commercial building – only increase in tax base will come from additional households
- Households for each municipality are expected to grow in line with annualized population growth for respective municipality
- Tax weightings (% of total tax revenue generated from each property type) by property code are consistent with 2017 baseline year for each forecasted year
- Lower tier municipalities all use a portion of tax revenues to support capital expenditures – therefore, total tax revenue supported capital expenditure, as a percentage of total capital expenditures, to remain consistent with 2018 budget.
- Tax weighting (percentage of total tax revenue collected from residential vs. commercial properties) expected to stay the same over the forecast period.

Property tax revenue needed:

- For Peel – property tax revenue requirement in any given year is derived from forecasted property tax supported operating expenditures (operating), along with taking into account contributions to the reserve

- For lower tier municipalities – property tax revenue requirement in any given year is derived from forecasted property tax supported expenditures (operating), as well as the calculated proportion of capital spending that is to be supported by property tax revenues

Property tax expected:

- Property tax expected is derived by taking 2017 baseline property tax revenue per household, and factoring in the increase/decrease in number of households for the forecast year
- The difference between property tax revenue needed and property tax revenue expected is used to derive the change in tax rates, by property type, by tier

Utility Rate Analysis

- Utility rate model will forecast the water and wastewater consumption levels and average annual unit costs for both residential and commercial properties. To form the baseline model and establish the allocation between residential and commercial consumption, the 2018 Region of Peel utility rate model will form the baseline assumptions.
- The forecast period will be assessed over the 10 years commencing in 2018 and extending to 2027.
- Operating expenditures within the 2018 budget will be used to determine the net expenditure not supported by grants or other sources of revenue for the four year forecast ending 2021. This will drive the utility rate supported expenditures required to ensure user fees charged will be sufficient per m³ consumed. As such, expected expenditures and annual growth rates will be leveraged from internal forecasts to the extent available.
- To forecast beyond 2021, the budget growth covering 2018 to 2021 will be annualized and applied for each subsequent year forecasted commencing in 2022. The growth will be applied on utility rate supported expenditures.
- An assumption has been made regarding any restrictions on the Region's ability to change the utility rate per m³ consumed. It is assumed no such restrictions exist. As such, the billing rate will be assessed and adjusted under the assumption that total user fees required will be equal to the net expenditure required from utility rate billings.
- The baseline growth for m³ consumed will be derived from the initial assessment of population growth. Reduction in the population growth rate will be applied to ensure that more efficient water consumption practices being utilized and promoted are taken into account.
- In allocating the consumption of m³ between residential and commercial, the 2018 internal baseline will remain constant over the 10 year forecast period given the limited variation expected. As such, the allocation of water and wastewater consumption ratios between each of the four identified billing streams will remain constant.
- Revenue streams will be divided into four categories:
 - Monthly Residential
 - Quarterly Residential
 - Monthly Commercial
 - Quarterly Commercial
- Wastewater consumed in m³ will remain fixed as a percentage of the water consumed m³. The weighting will be based on the 2018 baseline utility model prepared by the Region. Weighting of total utility OPEX (water and wastewater) is fixed at the 2018 weighting per the internal utility rate calculation.
- In assessing the average billing rate per household and commercial property, it is assumed 290m³ for residential households and 695m³ for commercial users. The unit of measures are obtained from the 2018 Region of Peel budget detailing the growth rate.
- In assessing the impact under different models, consideration in changes through other sources of funding such as changes in DC levels will be assessed. It is assumed such changes will require adjustment in utility rate supported expenditures at the inverse of the change. Such, changes will be adjusted directly within the average rate per m³.

Dissolution

General FTE Assumptions

- In assessing the impact on Full Time Equivalents ("FTE") the 2017 FIR baseline and total FTE count per Schedule 80A was used.
- To help establish the services and functions that are subject to adjustment Schedule 40 of the FIR was used to form the baseline assumption of costs being incurred for similar services across the Region and local Municipalities.
- Mapping of FTEs within the FIR was based on publicly available information to the extent possible with assumptions made around areas involving limited information at the local Municipalities.
- Management level positions, salaries, and FTE information was based on publicly available information with assumptions around the allocation of such FTEs across the FIR functional classifications at the local Municipality level. Such, data was used to help derive and quantify the impact of adjustments in FTE levels.
- For Region of Peel FTE analysis the internal HR details were obtained to help quantify impact of adjustments to the FTE levels. Assumptions were made around the classification and allocation of resources to the FIR functional level.
 - Total compensation was assumed to be equal to 90% of the maximum annual pay band as assessed through internal discussions with HR personnel at the Region.
 - Benefits allocated to total compensation were assumed to be equal to 23.3% as assessed through internal discussions with HR personnel at the Region.
- In performing our analysis over FTE adjustment levels we assumed there are no restrictions on the ability to add or eliminate any FTEs for services and functions identified.
- Assumed that average rates for manager and executive directors will be a function of total compensation for each function as per (i) Peel internal HR file for Peel and (ii) publicly available information for the local Municipalities.
- Assumed the average rates for non management level positions will be a function of total salary, wages, and benefits divided by the non-management level FTEs allocation to each functional area within the FIR.
- For common functions being performed both at the Region and the local Municipalities we assumed a reduction in FTEs will be driven through the elimination of management and executive levels.
- Reduction levels for FTEs will be derived from prior precedence from case studies assessed.
- It is assumed the remaining the FTEs will be repositioned and repurposed on an allocation basis driven by the nature of the function (i.e. protection services will be allocated based on crime statistics).
- Termination costs associated with downward adjustments will be based on the Region of Peel's average tenure for employees within each allocated FIR function.
- Common law will be used as the basis for quantifying the severance payout for each FTE eliminated in the identification of duplicate functions.
- It is assumed that only Region of Peel employees being reallocated will be subject to harmonization and step-up in costs for common roles.
- In the event that employees at the Region represent the highest pay band, no harmonization of local staff will be realized.
- With regards to services being offered by the Region and not the local Municipalities, which require the download from the Region, it is assumed that FTE levels will increase at only management and above.
- It is assumed that the allocation of non-management level employees for such services will be repositioned and repurposed on an allocation basis driven by the nature of the function (i.e. protection services will be allocated based on crime statistics).
- It is assumed that the incremental increase of management level employees will be allocated in proportion to the allocation of non-management staff as discussed above.
- It is assumed that the FTE adjustments will be phased out over a 5 year period at an increasing rate from years one to three, and then decreasing rate for subsequent years (three and four).
- It is assumed the stabilizing of incremental costs will occur in year 6.

General Asset Management Approach

- Starting point for asset allocation would be the 2017 TCA file for the Region of Peel which summarizes capital assets by Program, Municipality and type of asset.
- Given that the TCA is based on historical cost and the FIR is based on NBV, the consistent rate applied to each depreciable asset (all except land) per the TCA would be based on the total NBV as a % of historical cost.
- Any asset clearly identified to a particular municipality will be allocated to that municipality upon dissolution.
- Remaining assets flagged as 'No Municipality' will be allocated to the locals based on CVA.
- Other than specific service lines where a 'deep dive' has been performed, it is assumed that no additional assets would be required to support the transition of services provided by a regional level down-loaded to the locals.

General Reserve Allocation Approach

- Reserves were allocated to the locals in a consistent manner to principles provided under case law, such as usage rates for water/wastewater reserves, and CVA rate for the remaining reserves.
- Reserves not flagged to a service line were allocated to the locals based on CVA.
- Annual contributions to the reserve over a 10-year period were made based on discussions with the Region's management team. This was factored into the property tax financial analysis.

General Capital Expenditure Approach

- Capital expenditures forecasted by Peel will be allocated to the locals based on their TCA allocation.
- Other than specific service lines where a 'deep dive' has been performed, it is assumed that no additional capital expenditures would be required to support the transition of services provided by a regional level down-loaded to the locals.

Water and Wastewater Services

FTE Assumptions

- All FTE's residing with the Region of Peel designated under Water and Wastewater Services will be assigned to a joint board.
- There are no harmonization costs, severance payments nor changes to the composition of FTE upon dissolution.

Asset Management Approach

- All of the assets per the TCA designated as assets related to Water and Wastewater Services will be assigned to a joint board.
- All debt and long term liabilities associated with Water and Wastewater Services will be assigned to the joint board.

Capital Expenditure Approach

- No deviation from general approach for this service line.

Additional Costs

- Ongoing operational costs for administering the joint board assumed to be 1.2% of total annualized operating expenses for Water and Wastewater Services.
- Financial data for the joint board will be allocated to the local municipalities based on usage.

Contracts

- Assumed that the OCWA contract would be assigned to the joint board with no early termination costs incurred.

Police Services

FTE Assumptions

- Mississauga and Brampton would oversee their own boards for police services; Caledon will continue to contract police services to OPP.
- For all roles (primarily civilian) where there currently less than equal to 2 FTEs, we assumed these roles would need to be duplicated upon dissolution for Mississauga and Brampton. It is assumed such positions represent director and chief roles, for which is assumed to be needed for each board established.
- Incremental FTEs identified requiring the duplication of roles (i.e. directors and chiefs) will be allocated on publicly available information regarding divisional crime statistics across the key areas identified.
- It is assumed the key areas identified are those around:
 - Division 10
 - Division 11
 - Division 20
 - Division 21
 - Airport Division
- All other resources and police FTEs will be allocated based on how the Region's police force is being funded by Brampton and Mississauga. The Region's current funding of OPP costs for Caledon will also be transferred to Caledon upon dissolution given that the Town would be responsible for self-funding the costs in future periods.

Asset Management Approach

- Assets owned by the Region of Peel would be allocated to Mississauga and Brampton based on the location of where these assets reside.
- It is assumed that upon dissolution an investment for asset categories with the exception of Equipment & Furnishings would need to be made in Brampton to align with the amount of assets received by Mississauga.
- It is assumed that an investment would need to be made in Mississauga for Equipment & Furnishings to maintain ratios with Brampton based on CVA.

Capital Expenditure Approach

- It is assumed that upon dissolution, additional capital expenditure would be required over and above Peel's forecasted capital expenditures for Police Services. It is assumed that the additional rate is calculated based on the rate of up-front investment required to down-load these services as a % of total assets related to Police Services.

Contracts

- Assumed that the Region's contract with OPP to police Caledon will continue.

Roads

FTE Assumptions

- Will leverage 2017 Deloitte Report on Regional roads to assess FTE impact upon dissolution

Asset Management Approach

- Assets designated as belonging to roads will be allocated based on the lane km in each of the jurisdictions.

Capital Expenditure Approach

- No deviation from the general approach for this service line.

Contracts

- No significant assumptions

Waste Management Services

FTE Assumptions

- Given that the integrated waste management processing facility will be allocated to Brampton, all FTEs related to this asset will be allocated to Brampton as well.

Asset Management Approach

- Integrated waste management facility will be allocated to Brampton based on geographical location, will enter into a service delivery agreement with Mississauga and Caledon. Remaining assets will be allocated based on CVA rates.

Capital Expenditure Approach

- No deviation from the general approach for this service line.

Additional Costs

- It is assumed that existing waste management contracts at the Region would need to be terminated, subject to early termination fees equal to 3 months service cost.
- It is assumed that reduced purchasing power in negotiations by the locals in negotiating their new solid waste disposal and collections contracts will translate to a 6.8% increase in rates.

Contracts

- All existing contracts to be terminated, solid waste disposal and collections contracts to be negotiated at a local level

Housing

FTE Approach

- Additional management staff would need to be on-boarded to oversee the local delivery at a local level; consistent with general FTE approach
- No additional front line staff required; consistent with general FTE approach

Asset Management Approach

- Assets are allocated to the locals based on the location of where they reside
- No additional assets required upon down-loading of this service as the assets are already divided to serve the needs of each location.

Capital Expenditure Approach

- No deviation from the general approach for this service line.

Contracts

- No significant assumptions.

Amalgamation

General FTE Assumptions

- In assessing the impact on Full Time Equivalents ("FTE") the 2017 FIR baseline and total FTE count per Schedule 80A was used.
- To help establish the services and functions that are subject to adjustment Schedule 40 of the FIR was used to form the baseline assumption of costs being incurred for similar services across the Region and local Municipalities.
- Mapping of FTEs within the FIR was based on publicly available information to the extent possible with assumptions made around areas involving limited information at the local Municipalities.

- Management level positions, salaries, and FTE information was based on publicly available information with assumptions around the allocation of such FTEs across the FIR functional classifications at the local Municipality level. Such, data was used to help derive and quantify the impact of adjustments in FTE levels.
- For Region of Peel FTE analysis the internal HR details were obtained to help quantify impact of adjustments to the FTE levels. Assumptions were made around the classification and allocation of resources to the FIR functional level.
 - Total compensation is assumed to be equal to 90% of the maximum annual pay band as assessed through internal discussions with HR personnel at the Region.
 - Benefits allocated to total compensation are assumed to be equal to 23.3% as assessed through internal discussions with HR personnel at the Region.
- In performing our analysis over FTE adjustment levels we assumed there are no restrictions on the ability to add or eliminate any FTEs for services and functions identified.
- Assumed that average rates for manager and executive directors will be a function of total compensation for each function as per (i) Peel internal HR file for Peel and (ii) publicly available information for the local Municipalities.
- Assumed the average rates for non management level positions will be a function of total salary, wages, and benefits divided by the non-management level FTEs allocation to each functional area within the FIR.
- For common functions being performed both at the Region and the local Municipalities we assumed a reduction in FTEs will be driven through the elimination of management and executive levels.
- Reduction levels for FTEs will be derived from prior precedence from case studies assessed.
- It is assumed that such reduction levels in management and above will only be assessed on FTEs at the local Municipal level with no reduction in the Regional staff.
- Termination costs associated with downward adjustments will be based on the Region of Peel's average tenure for employees within each allocated FIR function.
- It is assumed that common law will be used as the basis for quantifying the severance payout for each FTE eliminated in the identification of duplicate functions as agreed upon with internal HR at the Region.
- It is assumed that non-management level employees will be remain the same with no adjustments in FTE levels.
- Assumed that all staff in common roles and positions will be subject to a step-up in wages up to the top bracket between the Region and the local Municipalities.
- For services being performed between the locals and not the Region it is assumed that management and above will be subject to FTE reduction and termination costs consistent with the discussion above.
- Non-management level staff for common services between the local Municipalities will subject to wage harmonization consistent with the approach described above.

General Asset Management Assumptions

- Would require consolidating the local municipalities' assets with the Region of Peel
- It is assumed that service levels remain consistent to the status quo
- It is assumed that there are no redundant assets; assets will be re-deployed to maintain service levels across the municipalities.

General Capital Expenditure Approach

- All forecasted capital expenditures across the 4 municipalities will continue to be incurred in amalgamation.

General Contract Approach

- All existing contracts will continue in amalgamation.

Corporate Support Services

FTE Approach

- No deviation from general approach for this service line.

Asset Management Approach

- Investment of \$100 million required for an ERP over five years, which would represent \$20 million on an annual basis. The ERP would only be used by the Region.

Transit & TransHelp

- No deviation from the general approach for this service line.

Fire Services

FTE Approach

- No deviation from general approach for this service line.

Asset Management, Capital Expenditure and Contracts Approach

- No deviation from the general approach for this service line.

Parks & Recreation

- No deviation from the general approach for this service line.

Roads

FTE Approach

- Will use Deloitte's 2017 Regional Roads study in conjunction with the general approach to quantify FTE impacts upon amalgamation.

Asset Management, Capital Expenditure and Contracts Approach

- No deviation from the general approach for this service line.

Efficiencies

General FTE Approach

- No deviation from general approach for this service line. Areas of interest were around General Government functions such as Corporate Management.

General Asset Management Approach

- Assuming no redundant assets in the status quo, assume no changes other than what's specifically identified at a service line level.

General Capital Expenditure Approach

- All forecasted capital expenditures across the 4 municipalities will continue to be incurred in the efficiencies option.

General Contracts Approach

- Assumed all existing contracts continue in the efficiencies option, other than what's specifically identified at a service line level.

Corporate Support Services

FTE, Capital Expenditure, Contracts Approach

- No deviation from the general approach for this service line.

Asset Management Approach

- Investment of \$100M required for an ERP over 5 years; \$20M per year.

Transit & TransHelp

FTE Approach

- In determining the impact from FTE level adjustments management and non-management positions were assessed irrespective of the other.
- It is assumed that management at the local Municipal level currently have the ability and utilization to oversee the downloading of TransHelp services.
 - As such, management and above are assumed to be eliminated from the Regions FTE count.
- For non-management positions, FTEs will be allocated based on a function identified to drive transportation expenditures (i.e. population).

Asset Management Approach

- Down-load TransHelp service to the locals
- Brampton would need to form a joint arrangement with Mississauga to use the new Mavis yard
- Vehicle assets to be split based on population.

Capital Expenditure Approach

- No deviation from the general approach for this service line.

Contracts

- Locals would assume any taxi company contracts that Peel has entered into.

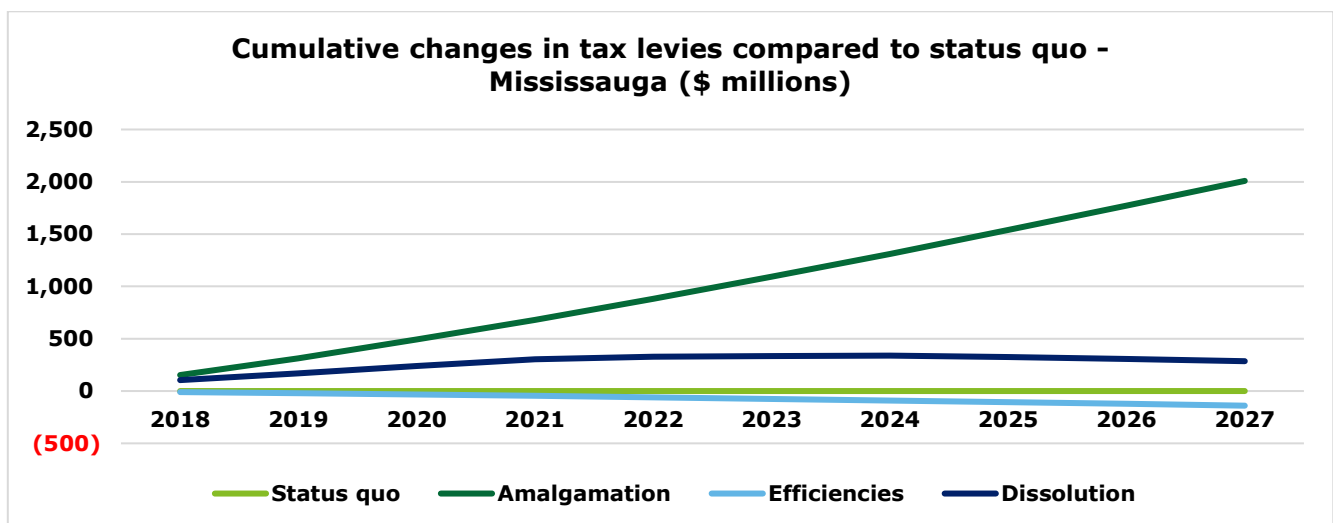
Fire Services, Parks and Recreation Services

- No deviation from the general approach for this service line.

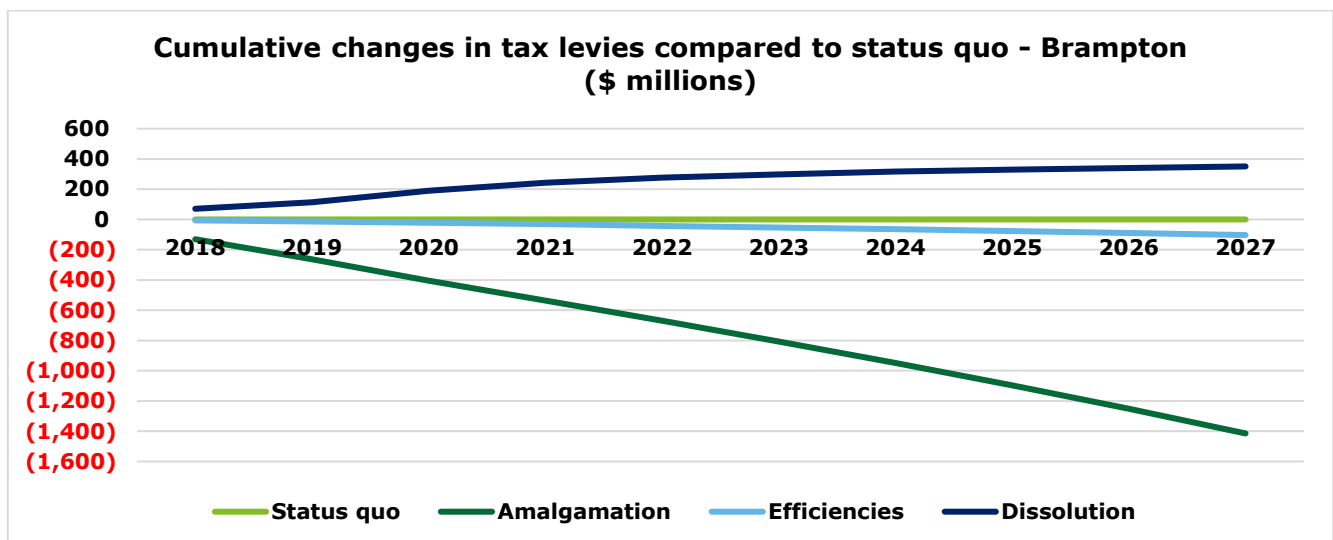
Appendix B: Overview of changes in the Locals' tax levies

Amongst all of the governance models, dissolution is the most expensive option for taxpayers. The following graphs illustrate that over a 10-year forecast period, each of the Locals would be required to generate the most amount of taxes from their taxpayers to account for increased expenditures arising from services which were previously provided at the regional level that have now been downloaded to the municipalities. Implementing efficiencies, on the other hand, will reduce future tax requirements the most.

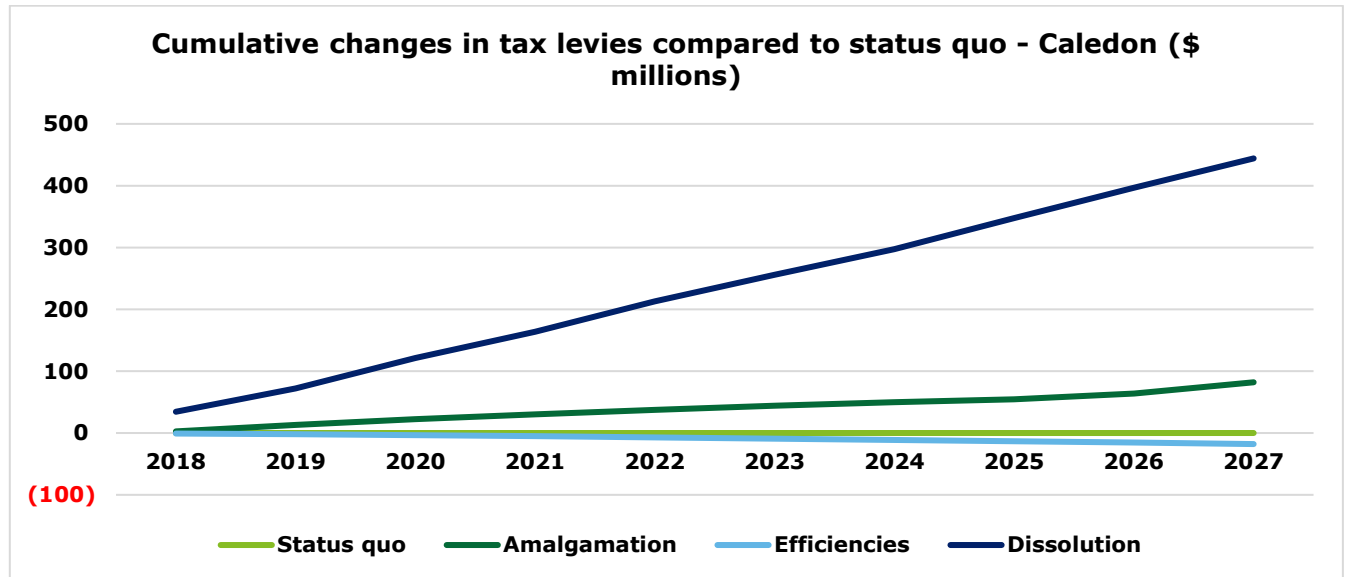
Mississauga: cumulative change in tax levies (\$ millions)



Brampton: cumulative change in tax levies (\$ millions)



Caledon: cumulative change in tax levies (\$ millions)



Appendix C: Financial Metrics

The following section illustrates how the Region and the Locals are affected by a change in governance structure using financial metrics. The following tables will denote metrics which improve in green font and metrics which worsen in red font.

10 year averages

The Region	Status Quo	Dissolution	Amalgamation	Efficiencies
Operating balance to operating revenue	13.08%	N/A	11.36%	13.4%
Total balance to total revenue	6.45%	N/A	3.21%	5.53%
Debt to operating revenue	56.53%	N/A	40.96%	57.01%
Interest expense to operating revenue	2.38%	N/A	1.55%	2.4%
Net assets (debt)	1,220,462	N/A	3,904,962	984,326
% of annual repayment limit being used	7%	N/A	5%	7%

Mississauga	Status Quo	Dissolution	Amalgamation	Efficiencies
Operating balance to operating revenue	8.56%	15.23%	N/A	8.64%
Total balance to total revenue	6.18%	16.30%	N/A	6.25%
Debt to operating revenue	33.09%	42.49%	N/A	33.13%
Interest expense to operating revenue	0.64%	1.61%	N/A	0.64%
Net assets (debt)	2,594,365	4,971,488	N/A	2,597,813
% of annual repayment limit being used	3%	5%	N/A	3%

Brampton	Status Quo	Dissolution	Amalgamation	Efficiencies
Operating balance to operating Revenue	10.3%	8.38%	N/A	10.5%
Total balance to total revenue	(3.7%)	0.77%	N/A	(3.56%)
Debt to operating revenue	12.88%	40.76%	N/A	12.92%
Interest expense to operating revenue	0.47%	1.71%	N/A	0.47%
Net assets (debt)	317,850	608,478	N/A	324,451

Brampton	Status Quo	Dissolution	Amalgamation	Efficiencies
% of annual repayment limit being used	3%	6%	N/A	3%

Caledon	Status Quo (SQ)	Dissolution (DS)	Amalgamation (AM)	Efficiencies (E)
Operating balance to operating revenue	23.67%	(5.17%)	N/A	24.05%
Total balance to total revenue	18.63%	(6.66%)	N/A	18.9%
Debt to operating revenue	9.45%	33.29%	N/A	9.51%
Interest expense to operating revenue	0.57%	1.48%	N/A	0.57%
Net assets (debt)	176,025	36,701	N/A	177,058
% of annual repayment limit being used	2%	4%	N/A	2%

The following section illustrates how the Region and the Locals are affected over time, by a change in governance structure using financial metrics. The following shows the average metric for years 1-5, and the average metric from years 6-10, highlighted whether the metric is getting better (shown using green font) or worse (shown using red font) over time on a standalone basis.

The Region	SQ (1-5)	SQ (6-10)	DS (1-5)	DS (6-10)	AM (1-5)	AM (6-10)	E (1-5)	E (6-10)
Operating balance to operating revenue	13.04%	13.12%	N/A	N/A	12.28%	10.44%	13.39%	13.41%
Total balance to total revenue	3.23%	9.66%	N/A	N/A	0.97%	5.46%	1.17%	9.89%
Debt to operating revenue	67.48%	45.58%	N/A	N/A	45.60%	36.32%	68.04%	45.98%
Interest expense to operating revenue	2.84%	1.92%	N/A	N/A	1.79%	1.31%	2.86%	1.93%
Net assets (debt)	461,911	1,979,014	N/A	N/A	2,392,178	5,416,545	208,954	1,759,698
% of annual repayment limit being used	9%	5%	N/A	N/A	6%	4%	9%	5%

Mississauga	SQ (1-5)	SQ (6-10)	DS (1-5)	DS (6-10)	AM (1-5)	AM (6-10)	E (1-5)	E (6-10)
Operating balance to operating revenue	11.36%	5.76%	17.04%	13.42%	N/A	N/A	11.43%	5.86%
Total balance to total revenue	7.01%	5.35%	16.63%	15.96%	N/A	N/A	7.07%	5.44%
Debt to operating revenue	23.19%	42.99%	43.52%	41.47%	N/A	N/A	23.21%	43.05%

Mississauga	SQ (1-5)	SQ (6-10)	DS (1-5)	DS (6-10)	AM (1-5)	AM (6-10)	E (1-5)	E (6-10)
Interest expense to operating revenue	0.45%	0.83%	1.68%	1.60%	N/A	N/A	0.45%	0.83%
Net assets (debt)	1,726,859	3,461,872	3,062,933	6,880,042	N/A	N/A	1,728,084	3,467,542
% of annual repayment limit being used	3%	2%	6%	4%	N/A	N/A	3%	2%

Brampton	SQ (1-5)	SQ (6-10)	DS (1-5)	DS (6-10)	AM (1-5)	AM (6-10)	E (1-5)	E (6-10)
Operating balance to operating revenue	10.97%	9.62%	9.45%	7.31%	N/A	N/A	11.12%	9.89%
Total balance to total revenue	-6.30%	-1.10%	-1.37%	2.91%	N/A	N/A	-6.21%	-0.91%
Debt to operating revenue	17.26%	8.50%	49.14%	32.37%	N/A	N/A	17.30%	8.54%
Interest expense to operating revenue	0.62%	0.31%	2.07%	1.36%	N/A	N/A	0.62%	0.31%
Net assets (debt)	306,601	329,098	403,179	813,777	N/A	N/A	308,617	340,285
% of annual repayment limit being used	3%	2%	7%	5%	N/A	N/A	3%	2%

Caledon	SQ (1-5)	SQ (6-10)	DS (1-5)	DS (6-10)	AM (1-5)	AM (6-10)	E (1-5)	E (6-10)
Operating balance to operating revenue	24.01%	23.34%	-4.41%	-5.93%	N/A	N/A	24.28%	23.83%
Total balance to total revenue	16.78%	20.48%	-8.31%	-5.00%	N/A	N/A	16.96%	20.84%
Debt to operating revenue	12.98%	5.93%	39.95%	26.63%	N/A	N/A	13.03%	5.98%
Interest expense to operating revenue	0.78%	0.36%	1.78%	1.18%	N/A	N/A	0.78%	0.36%
Net assets (debt)	101,783	250,267	-497	-72,905	N/A	N/A	102,101	252,014
% of annual repayment limit being used	2%	1%	5%	3%	N/A	N/A	2%	1%

Appendix D: Case studies

Overview

One of the key drivers of changing a municipality’s governance structure stems from the desire to improve the efficiency and effectiveness of service delivery for residents. The purpose of this section is to review the experiences of jurisdictions in both Canada and Australia that have undergone an amalgamation and/or dissolution.

Key findings from the case studies are as follows:

	Amalgamation	Dissolution
Advantages	<ul style="list-style-type: none"> • Harmonization of service levels • Reduction of tax burden, especially for jurisdictions with a limited tax base 	<ul style="list-style-type: none"> • Preservation of local identity • Freedom to establish and maintain desired service levels and tax rates
Disadvantages	<ul style="list-style-type: none"> • Potential to merge municipalities that do not share similar local identifies • Reduction of staff could lead to delays in process efficiencies 	<ul style="list-style-type: none"> • Can lead to complex governance structures • Costs associated with de-amalgamation are not as well known

Amalgamation

Case Study #1: City of Toronto, Ontario

As part of its mission to improve service delivery and reduce costs, the province of Ontario consulted with an appointed special advisor during the 1990’s that resulted in the amalgamation of the area formerly known as Metropolitan (Metro) Toronto with 6 of its lower-tier municipalities in 1998. Although more than 20 years have passed since the amalgamation occurred, the aftermath of the governance structure change is still relatively unknown.

Studies indicate that savings arising from amalgamation may have been less than what was originally anticipated – Toronto hoped to achieve cost savings of \$167.3 million (Schwartz, 2001), but by the end of 2000, the city reported that it had saved \$153.5 million (Garrett, 2001). Less savings may have been realized due to the fact that the majority of the city’s most costly services, which included policing, transit, and welfare assistance, were already provided by the upper-tier government in the previous governance structure. As a result, there may have been limited opportunities to find efficiencies in the remaining services that were still being provided by the lower-tier governments (Slack & Bird, 2013) prior to transition.

Actual costs associated with the transaction were also greater than the province’s estimated costs. In 2001, Toronto expressed that the province’s estimated amalgamation costs failed to capture costs associated with service level harmonization, wage harmonization, financing of transition costs, upgrade of the city’s business information systems, and consolidation and modification of its facilities. The excluded costs amounted to at least \$46.8 million for annual costs and an additional \$55 million to \$120 million for one-time transition costs.

Uncertainty surrounding the amalgamation’s costs and benefits were further echoed in Slack and Bird’s 2013 study which tracked the six former lower-tier governments’ expenditures for four services – fire, garbage, libraries, and parks and recreation – from 1988 to 1997 and the amalgamated city from 1998 to 2008. The study indicated that, with the exception of libraries, costs for the services increased post-amalgamation.

Despite the reservations associated with the amalgamation's costs and savings, the amalgamation may have resulted in more equitable service levels and tax burden for residents. For jurisdictions, such as the municipalities of York and East York, service levels were improved as a result of the amalgamation given that costs could be shared over a larger tax base (Slack & Bird, 2013).

Case Study #2: City of Ottawa, Ontario

The Regional Municipality of Ottawa-Carleton (RMOC) was created in 1969 as urban growth outside the City of Ottawa required co-ordinated urban and transportation planning, water, sewer, and road operations. Over the years there were numerous discussions about the appropriate role of the region and area municipalities. The RMOC came to play an important role in delivering transit services and social services over time, and police services were regionalized in 1995 (although the OPP continued to police the rural areas for a number of years).

After the amalgamation of Metro Toronto, the province of Ontario initiated a review of governance within the RMOC. Overall, there was mixed support for the proposed amalgamation – the City of Ottawa and the majority of members on RMOC's Council favoured a single-tier government structure, but the rural jurisdictions in the region opposed the idea of amalgamation (Dilkens, 2014). The province's review and consultation resulted in its decision to amalgamate all 11 municipal entities in 1999. The province then appointed a Transition Board to manage the integration of the 11 entities so they were ready to operate as one single-tier city (the City of Ottawa) in January 2001. The Province mandated the Transition Board to achieve savings of \$79.9M as a result of amalgamation and provided \$108.5M in grants to support the transition process (Kanellakos, 2002).

In 2004, Ottawa's City Auditor filed reports indicating that Ottawa achieved \$80.3 million in permanent savings and a reduction of 830 FTE positions (Kirkpatrick & McTaggart, 2004). Overall, the amalgamated city exceeded its original savings estimates, but also noted that there were variances from its original cost estimates. One significant reason for the difference was the adoption of modern systems and processes during the amalgamation. Ottawa's savings did not all translate into tax reductions, in part due to the pressures to expand some services, such as the land ambulance service which had been downloaded from the Province. The tax impact also varied by municipality as all predecessor municipalities had different tax rates and different assessment categories before amalgamation.

Viewed from 18 years later, it is clear that the "urban options" would have continued the past issues of urban development occurring outside the urban areas. Goulbourn in particular was seen as a rural community, with a modest development in the Stittsville area. It has since seen extensive development and the physical gap between Stittsville and Kanata has disappeared. Keeping the entire area within the same municipality has facilitated the planning and development process. Recent natural disasters (floods, tornados) have demonstrated the value of response being managed by a large municipality with substantial resources.

Case Study #3: City of Hamilton, Ontario

Prior to the start of the province of Ontario's review of local governments, the Region of Hamilton-Wentworth and the City of Hamilton voluntarily combined their administrative structures in 1997, which accounted for 91% of the areas' total expenditures and resulted in savings of \$13.6 million (O'Brien, 1999). Despite the areas' efforts, the province of Ontario appointed a special advisor in 1999 to review the governance model.

The special advisor identified several governance models but ultimately considered two models to warrant further consideration – the one-city model or the three cities model. The one-city model's proposed benefits included: economic efficiency, increased cost savings, enhanced capacity for area-wide planning, the Region's improved competitive position in the global market, and enhanced accountability. The three cities model proposed to abolish the regional government and replace it with three local governments – the City of Hamilton, the City of Wentworth, and the City of Stoney Creek. Ultimately, the special advisor's analysis indicated that the one-city model was most viable, especially as it was seen to require fewer politicians,

lower taxes, improve service delivery, reduce bureaucracy, and establish clear lines of responsibility and improve accountability at the local level (O'Brien, 1999).

The province established a transition board to carry out the amalgamation. The transition board originally estimated that the new governance structure would result in \$50 million of annual savings, as well as one-time transition costs of \$58.5 million which included consultant fees, severance payments, new municipal service centres, staff training, uniform changes, new signage and equipment, and new or upgraded technology assets (Rinaldo, Joseph L., 2001). As part of its transition process, the new municipality indicated that one-time transition costs were anticipated to be greater than originally estimated by the province (Rinaldo, Joseph L., 2001).

In an interview 10 years later, the former chair of the transition board indicated that the new City of Hamilton achieved annual savings of \$25 million due to job cuts. However, given that costs continued to rise after amalgamation, the former chair indicated that taxpayers did not see tangible benefits arising from the amalgamation.

The new City used a five-year phase in process for its tax changes and used an area rating system. The area rating system reflected the differences in services provided, service levels, and the user fees that each municipality had prior to amalgamation (Werner, 2018). The area rating system was complex due to consideration of differing service levels.

Residents continue to resent the amalgamation to date. Rural residents in the new City of Hamilton noted that they lost their identity and autonomy, as well as had increased tax rates which resulted from the equalization of the tax base.

Dissolution

Case Study #1: City of Montreal, Quebec

Ontario's amalgamations during the 1990s prompted the province of Quebec's to consider whether its municipalities needed to be restructured. As a result of this assessment, the provincial government chose to amalgamate 28 municipalities on the Island of Montreal to create a City of Montreal in 2002. To recognize linguistic differences between merged municipalities, as well as preserve local responsiveness, the provincial government created 27 borough governments within the amalgamated city. The borough governments were responsible for the provision of local services to its residents. Despite the provincial government's efforts, the amalgamation decision was considered to be highly controversial and opposed by many of the suburban municipalities (Miljan & Spicer, 2015).

In 2003, a newly elected provincial government offered amalgamated communities the option to de-amalgamate if they had their residents' support to do so. By 2006, 15 of the amalgamated communities on the Island of Montreal chose to de-amalgamate. The municipalities' decision to de-amalgamate triggered the creation of a complex governance structure, which consisted of four levels with differing levels of authority and servicing responsibilities: the borough councils, the Montreal city council, the Agglomeration council, and the Montreal Metropolitan Community.

The partial de-amalgamation has resulted in some challenges for the city, such as:

- Varying amount of budgets allocated to each borough which has effectively created "have" and "have-not" communities within the city, and
- Inconsistent levels of service resulting from the borough governments' discretion to determine what levels of service they will provide to their residents (Miljan & Spicer, 2015).

Montreal's de-amalgamation experience, therefore, presents an example of how a de-amalgamation can lead to unanticipated and undesired outcomes.

Case Study #2: Headingley, Manitoba

Similar to Toronto, the City of Winnipeg was established based on a forced amalgamation caused by the provincial government. Headingley was one of the rural communities which were amalgamated with Winnipeg. Headingley's residents opposed the amalgamation, especially as they felt as though their rural community did not share commonalities with the city's urban areas (Miljan & Spicer, 2015).

Winnipeg's independent survey and study of Headingley residents in 1990 further demonstrated that the residents had concerns with the amalgamation. Headingley's residents noted that they wished to retain their "semi rural" identity, minimize development to prevent loss of farmland, avoid subsidizing urban services that they did not have access to, and minimize service level harmonization for the purposes of keeping property taxes low (Miljan & Spicer, 2015).

In 1991, the provincial government permitted Headingley to hold a referendum on secession for its residents – the majority of the registered voters elected to secede from the city (Miljan & Spicer, 2015). Given the differences between Headingley's and Winnipeg's local identifies, the provincial government approved Headingley's request for secession.

The secession, however, did not go as smoothly as anticipated. The division of assets and liabilities between Headingley and Winnipeg went to arbitration, which resulted in the following rulings:

- Headingley and Winnipeg to share assets which were constructed during the amalgamation period, such as the city's solid waste disposal system;
- Winnipeg to share its unallocated reserves, equipment, and chattles with Hedingley; and
- Assets to be apportioned using portioned value (value on which taxes are levied) instead of in proportion to the municipality's assessed value (Miljan & Spicer, 2015).

Case Study #3: Haldimand and Norfolk, Ontario

The counties of Haldimand and Norfolk were amalgamated in 1974 to establish the Regional Municipality of Haldimand-Norfolk, which consisted of seven municipalities – one regional municipality and six local municipalities. When the province of Ontario's government restructuring review began, the communities wondered whether they should continue to operate as a region. Cultural differences, as well as a significant increase in property tax rates at the regional level suggested that the regional governance model was not sustainable. However, not all were opposed to maintain the regional government, especially as the upper-tier was responsible for 80% of the costs (Miljan & Spicer, 2015).

Without seeking input from the impacted communities, the provincial government moved ahead with its decision to de-amalgamate the upper-tier government and establish two single-tier municipalities – the Town of Haldimand and the Town of Norfolk based on the assumption that this would reduce costs. Similar to Headingley, the de-amalgamation of the municipality required arbitration to equitably divide assets and liabilities between the two communities. Key rulings included:

- Non-water assets: to be allocated based on weighted assessment
- Assets and liabilities of local boards: to be allocated based on locations in which they are located
- Water and wastewater assets, liabilities, and reserves: to be allocated using water and sewer rate revenues for a five year period. Current year surplus to be allocated using the current year water and sewer rate revenues, and
- Reserves: to be allocated using weighted assessment unless special conditions applied (Scandlan, 2019).

Overall, the de-amalgamation process was considered "rapid" and did not grant the transition sufficient time to satisfactorily address issues that were identified. For instance, the communities did not have sufficient time to negotiate new labour agreements, which resulted in wage harmonization. Remuneration in Haldimand and Norfolk increased approximately by 25% and 50%, respectively, due to the rapid transition

process, which were considered to have reduced the potential for cost savings arising from the governance model changes (Miljan & Spicer, 2015).

As part of the transition process, the provincial government also advised the communities to share services subsequent to de-amalgamation. This translated to the province advising Norfolk to provide services to Haldimand, as well as use of a joint police board to share costs (Miljan & Spicer, 2015).

Case Study #4: Queensland, Australia

In response to concerns regarding municipalities' financial sustainability, the Queensland Government performed a study of their governance models and concluded that amalgamation were required. 156 councils were consolidated to 72, and 32 Aboriginal and Island councils were reduced to 14 by 2008 (Riezebos, 2014).

The forced amalgamations were opposed by the communities and became an important election issue during the 2012 Queensland state election campaign. In 2012, a new political party came into power and allowed municipalities to apply to be considered for de-amalgamation. Through this new process, four jurisdictions, which included Douglas, Livingstone, Mareeba, and Noosa, were de-amalgamated (Riezebos, 2014).

The Queensland de-amalgamation experience questioned whether the forced amalgamations were beneficial. Upon review of amalgamation cost submitted by jurisdictions seeking a reimbursement, the Queensland Treasury Corporation noted that costs were higher than originally expected and mainly consisted of costs for: harmonization of salary and wages, information technology and communication systems, senior officer/staff costs, and councilor remuneration (Queensland Treasury Corporation, 2009).

Appendix E: Review of case law and arbitration results

Disclaimer

The following Appendix was provided by Gary Scandlan (Managing Partner and Director) of Watson & Associates Economists Ltd.

Background

Over the past 60 years there has been a number of major restructuring undertakings. These include the 1953 creation of Metropolitan Toronto and its six local municipalities, creation of Regional Municipalities during the 1970-1974 period, and the numerous municipal restructurings in the late 1990's under the Savings and Restructuring Act, 1996. See **Appendix D** for case study examples.

The 1953 creation of Metropolitan Toronto provided significant insight and established a precedent setting approach to municipal restructuring. Dr. Lorne R. Cumming, a former Ontario Municipal Board Chairman, developed a series of principles (subsequently referred to as the "Cumming Principle") regarding the issue of financial adjustment following the transfer of assets between municipal bodies. The key operative sentence of the Cumming Principle was:

"As long as residents of an area are not deprived of the assets that were intended for their use, the transfer of the assets to a new local government does not require individual or collective compensation, as there has been no deprivation of rights" applied to both the lower tier amalgamations and the creation of Metropolitan Toronto because there was no loss of the beneficial use of the assets.

The above was further clarified by Arbitrator William A. Rice in the August 15, 2002 decision regarding the County of Haldimand and County of Norfolk who provided:

"It is my opinion that the operative sentence in the Cumming Principle suggests, by extension, that if there is a loss of beneficial use, a compensation adjustment should be considered. It is also my opinion, that for a compensation adjustment to be considered, the proposed allocation must have created an unfair distribution that would place a considerable burden on one party or the other. For the allocation of some assets and liabilities, the principle of "equal enough" should be considered before the award of a compensation adjustment. Consideration of a compensation adjustment should include a determination of fairness and equity using an appropriate valuation method."

The following sections provide for a summary of the Arbitration decisions undertaken subsequent to the municipal restructurings in the late 1990's. **Part 1** of this section provides for the allocation of Physical Assets, Financial Assets and Liabilities arising from the above noted 2002 Haldimand/Norfolk Arbitration. **Part 2** provides for arbitrations decisions arising from the realignment of Ontario Works, Ontario Disability Support Program (ODSP), Child Care, Social Housing, Land Ambulance and Public Health Services where the province established managers/service providers and requirements for cost sharing and apportionment amongst municipalities.

Part 1: Haldimand/Norfolk Arbitration - Allocation of Assets and Liabilities

In late 1999, the province enacted legislation which dissolved the six lower tier municipalities of the Regional Municipality of Haldimand-Norfolk and the Regional Municipality of Haldimand-Norfolk into two Counties (Haldimand County and Norfolk County). Five of the former local municipalities were amalgamated with the two new Counties while one local municipality (Town of Norfolk) was divided between the new Counties.

As part of the restructuring process, an initial allocation of assets and liabilities was established by a restructuring committee however the New County of Haldimand appealed the decision. Arbitrator William A. Rice considered the appeal and the following provides a summary of his August 15, 2002 decision.

Guiding Principles for Allocation

Throughout the decision, the arbitrator referenced Dr. Cummings 1953 decision regarding Metropolitan Toronto and the guiding principles for restructurings. The operative sentence of the Cumming Principle is "As long as residents of an area are not deprived of the assets that were intended for their use, the transfer of the asset to a new local government does not require individual or collective compensation, as there has been no deprivation of rights."

Haldimand's principles were based on the general premise that the allocation of assets and reserves should "follow the money". Physical assets should be vested in one county or the other based on the practical requirement of location. Appropriate financial adjustment should then be determined based primarily on the revenue source for the related asset or liability. For an asset, the question should be where did the money come from to acquire it. For debt, the question should be what revenue source did the former Region or former Town of Nanticoke intend to tap into in order to pay for that debt.

In the Arbitrator's opinion, the operative sentence of the Cumming principle suggested by extension that if there is a loss of beneficial use, a compensation adjustment should be considered.

General Methodologies and Rules

Non-Water/Wastewater Assets

The arbitrator agreed with Haldimand's submission that "households and population" did not generate any of the assets and this methodology should not be used to allocate assets. Weighted Assessment was the basis for distribution (note that in Peel's case, a special calculation will be required as the tax ratios vary thus providing different weightings – this concept is further discussed in the subsequent Haldimand/Norfolk Social Service Arbitration).

Water and Wastewater Rate Revenues

The following method was to be applied to assets generated from rate revenues, with related debt, reserves or reserve funds allocated on the same method.

"Assets generated from water and sewer rates including reserves and reserve funds and any liabilities other than long-term debt shall be allocated using water and sewer rate revenues (including bulk water rates) averaged for the five-year period 1996 to 2000 – the final year 2000 audited surplus water rates) for the year 2000."

Water and Sewer Assets

With respect to water and sewer distribution/collection systems, residents were served by one of the 13 subsystems used to deliver the services which were allocated by new municipality. It was observed that residents had not lost beneficial use of the systems and hence there shall be no consideration of compensation adjustment for these assets.

Solid Waste Properties

Decision of the allocation committee to jointly vest the landfill site and the materials recovery facility is upheld. It is obvious that the approval of landfill sites by the ministry is a lengthy and expensive process. It does not seem reasonable to require Norfolk County to replicate the process that took place within the region and that resulted in the adoption and approval of the long-term system that will meet solid waste management demands of the entire Region for the next 50 years.

Administration Building

The Arbitrator directed that Town of Nanticoke Administration Building shall be vested with Haldimand. This allocation was consistent with all other municipal buildings and we can see no value in a joint vesting.

In regard to the Regional building, it was leased from Ontario Realty Corporation (ORC) for 25 years after which it could be purchased for \$1. Norfolk was charged an annual rent of \$20,000 for the facility and the residual rental charge to ORC was to be paid proportionately by both municipalities (based upon weighted assessment). At the end of the lease, the building may be sold (with the profits shared).

Roads and Bridges

With respect to roads and bridges, residents will continue to have access to and the use of public roadways in both municipalities therefore there shall be no consideration of a compensation adjustment for these assets.

Compensation for all Properties

With respect to land and buildings, residents of both municipalities have lost the beneficial use of these assets. Analysis is complicated by the fact that some of these properties were transferred to the formation of the Region in 1974. Some of those transferred properties remain untouched while others have new buildings or additions constructed. Consistent with the Cummings principle, a compensation adjustment should be considered if the allocation that has been arrived at has created an unfair distribution.

Vehicles and Equipment

Public Works and Arena Equipment/Vehicles are to be valued and then distributed based on both municipalities identifying their equipment needs. For Waste Management, vehicles and equipment are to be vested jointly.

Fire Facilities, Vehicles and Equipment

- Facilities – will remain within the municipality in which they are located with no compensation
- Vehicles – valued at original purchase price with 20 year depreciation (vehicles older than 20 years valued at nil) – net compensation adjusted based upon weighted assessment
- All other Equipment – resides with Fire Hall where they are located.

Long Term Debt

Water and Sewer Debt

For outstanding liabilities directly related to specific assets, the Cummings Principle should not apply. It is clear that a capital financing system (i.e., the Capital Budget) was used by the Region that pooled the various revenues and assign debt to specific projects to simplify the debt issuing exercise (i.e., allocating debt to a few large projects vs evenly distributing the debt across all projects).

It is the arbitrator's award that it is not debt, but rather the annual payments of principal and interest that should be allocated to the parties. Any allocation of payment should include identification of DCs distributed to the parties. During the oral argument the parties were able to isolate three projects which the applicable portion of the data related to the DCs. The annual debt payments were then allocated between parties until the debt repayment had been fully paid.

Homes for the Aged Facility Debt

Similar to Water and Sewer debt, the capital financing system used by the Region pooled various revenues and assigned debt to specific projects to simplify the debt issuing exercise. It is the arbitrators award that the debt payments be allocated annually based on weighted assessment.

Reserves and Reserve Funds

- a. Self-Insurance – Funds placed into a Trust Fund to recognize joint responsibilities for processing existing claims – any residual balance will be allocated based on a three-year average or Weighted Assessment plus Water/Sewer Billings
- b. Regional Road Vehicle and Equipment Replacement Reserve – distributed based on weighted assessment
- c. Board of Health Reserve – to be held in a Trust Fund – if funds no longer required, to be distributed based on weighted assessment
- d. Homes for the Aged Facility Renovation Fund - distributed based on weighted assessment (note that there were facility re-design costs in progress which were funded first from this fund)
- e. Social Assistance Stabilization Reserve - distributed based on weighted assessment
- f. Waste Management Rate Stabilization Reserve - distributed based on weighted assessment
- g. Water and Sewer Rate Stabilization Reserves – based on past 5 year average contributions from budgets
- h. Employee Benefits Insurance Reserve Fund - distributed based on weighted assessment
- i. Post-Employment Benefits Reserve Fund – Held in a Trust Fund – it is the joint responsibility to fund future benefits for retired Regional employees
- j. Sick Leave Reserve Fund – value of amounts specific to individual employees as of date of de-amalgamation, shall be the liability of the employers – these costs transferred to the individual municipalities – residual distributed based on weighted assessment
- k. Workers Compensation Reserve – held in Trust Fund - value of liability as of date of de-amalgamation plus future liabilities for these staff, shall be paid from the Trust Fund – any residual future liability or surplus distributed based on weighted assessment
- l. Solid Waste Reserve Fund - distributed based on weighted assessment
- m. Sewer Capital Replacement Reserve Fund - based on past 5 year average revenues
- n. Water Development Charge Reserves Fund – Funds shall be allocated on the basis of the location for subdivisions and severances that contributed funds during the past 10 years, calculated as a percentage to one decimal point.
- o. Sewer Development Charge Reserves Fund – Funds shall be allocated on the basis of the location for subdivisions and severances that contributed funds during the past 10 years, calculated as a percentage to one decimal point
- p. Capital Fund Balances – Capital Projects that have been initiated by the awarding of a contract by the Region but have not been completed shall be funded from the original sources of revenue. Capital projects which have not been started, shall be closed and any committed funds be returned to source and allocated on the basis of the appropriate funding, and
- q. Assets and Liabilities of Local Boards – these are allocated based on the municipality on which they are located.

Part 2: Summary of Arbitration Cases Regarding Service Agreements amongst Municipalities

In January, 1998, the Province established a Provincial-Municipal service realignment for Social and Community Health Services. These services included Ontario Works, Ontario Disability Support Program (ODSP), Child Care, Social Housing, Land Ambulance and Public Health Services. The province established a regime of managers/service providers which would provide the service requirements for a broader jurisdiction. Within these jurisdictions they also established an initial cost sharing and apportionment regime amongst municipalities within these service areas. Subsequently, the municipalities within these jurisdictions could renegotiate the cost sharing approach.

The following provides for arbitration decisions arising from the service realignment:

Windsor, Essex County and Pelee Island, March 9, 1999

Arbitrator William Rice considered the division of Ontario Works, Child Care, and Social Housing costs. The issue in that case was actual cost vs. weighted assessment. The Arbitrator found that there was a spillover of services and clients between Windsor and three of the neighboring municipalities within the western part of the county and that Windsor and the three municipalities must be considered one social service catchment area. He further found that Windsor and the western portion of the county were “one economic unit”.

The Arbitrator also found that to use weighted assessment for the whole of Windsor, Essex county and Pelee Island would ignore the fact that a portion of the county and all of Pelee Island are beyond the demonstrated limits of the Windsor economic area. Arbitrator Rice went on to fashion and award based partly on weighted assessment and partly on costs.

Pembroke and Renfrew County, January 2, 2001

Arbitrator Howard Allan dealt with sharing of Ontario Works, Child care, and Social Housing cost between the city of Pembroke and the County of Renfrew. Once again, the issue was weighted assessment vs actual costs. Similar to Windsor/Essex/Pelee the result was an award based partly on weighted assessment and partly on actual costs.

Kingston and Frontenac County, July 11, 2004

Arbitrator William Rice addressed the issue of dividing cost of Ontario Works, Child care, and Social Housing between the City of Kingston and the County of Frontenac. He found the City and the southern part of the county were part of an economic unit. Similar to Windsor/Essex/Pelee, the award was based partly on actual cost and partly on weighted assessment.

Guelph and Wellington County, January 25, 2010

Arbitrator Douglas Colbourne confronted the issue of dividing cost for Ontario Works, Child care, Ontario Disability Support Program (ODSP), Social Housing and Land Ambulance between the City of Guelph and the County of Wellington. He found that “these municipalities are as interconnected with surrounding municipalities as they are with each other economically, socially, culturally and for employment purposes. The connection and draw between them raised in the city’s evidence are not supported by the evidence. The benefits of apportionment based on weighted assessment are not apparent here”. Arbitrator Colbourne went on to divide cost based entirely on costs rather than weighted assessment or a mixture of the two.

Haldimand County and Norfolk County, July 8, 2010

Arbitrator T.G. Zuber oversaw the submissions by the County of Haldimand and the County of Norfolk with respect to Ontario Works, Child care, Ontario Disability Support Program (ODSP) and Social Housing. The following allocations were made as a result of that arbitration case:

Service	Method of Net Cost Apportionment
Ontario Works	
Program Costs	<ul style="list-style-type: none"> Actual cost based on residence of the recipient
Administration	<ul style="list-style-type: none"> Prorate based on % share of the program costs above
ODSP (incl. ODB)	
Program Costs	<ul style="list-style-type: none"> Actual cost based on residence of the recipient
Administration	<ul style="list-style-type: none"> Prorate based on % share of the program costs above

Service	Method of Net Cost Apportionment
Child Care	
Fee Subsidy	<ul style="list-style-type: none"> • Actual cost based on residence of the recipient
Special Needs Resourcing	<ul style="list-style-type: none"> • Actual cost based on residence of the recipient
Wage Subsidy	<ul style="list-style-type: none"> • Actual cost based on the location of the facility
Administration	<ul style="list-style-type: none"> • Prorate based on % share of the program costs above
Social Housing	
Program Costs	<ul style="list-style-type: none"> • Actual cost based on residence of the unit/facility
Administration	<ul style="list-style-type: none"> • Prorate based on % share of the program costs above

Appendix F: Results of analysis for development charges and rate impact of wholesale-retail model

Disclaimer

The following Appendix was provided by Gary Scandlan (Managing Partner and Director) of Watson & Associates Economists Ltd.

Review of Forecasted Impacts to DC Revenues

Background

For each of the proposed governance structures, a DC analysis was performed to determine how growth-related costs would need to be funded in each of the scenarios. Various exemptions and deductions required under the Development Charges Act for the Province of Ontario were reflected in the calculations as well as discretionary exemptions provided by municipalities. These exemptions/reductions reduce a municipality's ability to collect DC revenues to fund growth-related capital needs and shift the burden to the tax/rate payer. These exemptions/reductions include:

- Mandatory exemptions such as the 50% industrial expansion exemption, local boards, school boards, and residential intensification exemptions;
- Discretionary exemptions provided by municipalities such as exemptions for bona fide farms, places of worship, etc.;
- Benefit to existing deduction to reduce the DC recoverable amounts by the portion of the costs that are considered to be non-growth related; and
- 10% mandatory deduction applied against all services except water, wastewater, storm water, roads, police, fire, and transit.

Methodology

As of the date of our report, each of the four municipalities were in progress of undertaking their DC updates and as such, no public information was available. Hence the following studies were used for this assessment:

- Peel Region – 2015 DC Background Study
- Mississauga – 2014 DC Background Study
- Brampton – 2014 DC Background Study
- Caledon – 2014 DC Background Study

Assumptions

As the DC background studies were performed as early as 2014 or 2015, several assumptions were applied to forecast the DC impacts arising from the governance changes:

- All values were inflated to 2017 dollars using the Non-residential Building Construction Price Index for comparative purposes and for inclusion in the operating impact assessment of the report. Subsequent years were then inflated by 1.9% annually (note that Caledon's 2014 study was presented in 2013 dollars, so an additional year inflation was applied).
- Differences in forecasted growth were adjusted, especially as the Locals anticipated higher growth than the Region as a whole.

- In the amalgamation scenario, a post-period benefit deduction was applied for the higher forecast services to align costs with the appropriate time horizons. Correspondingly, in the dissolution scenario, an enhanced spending forecast was provided to match the time horizon (based on an annual expenditure basis). Service standard calculations were not analyzed at this time however these should be reviewed in further detail with subsequent analysis.
- All DC quantum were calculated on a static basis (i.e. not a cash-flow basis) to ensure that all DCs were presented on the same basis for aggregating and disaggregating services. The impacts from interest costs were assumed to be minor to the overall impacts. Also, there were some variations in the non-residential charges (i.e. industrial vs. non-industrial) for certain municipalities however all charges are combined to reflect one non-residential charge for comparative purposes.
- Former DC studies used slightly different methodologies in calculating the DCs. One standardized methodology was used to estimate the impacts between the scenarios.
- Total DC recoverable and non-growth amounts were divided by the forecast period to determine the annual balances that needed to be reflected in the analysis.

Estimate of DC-recoverable costs versus tax- (and rate-) supported costs:

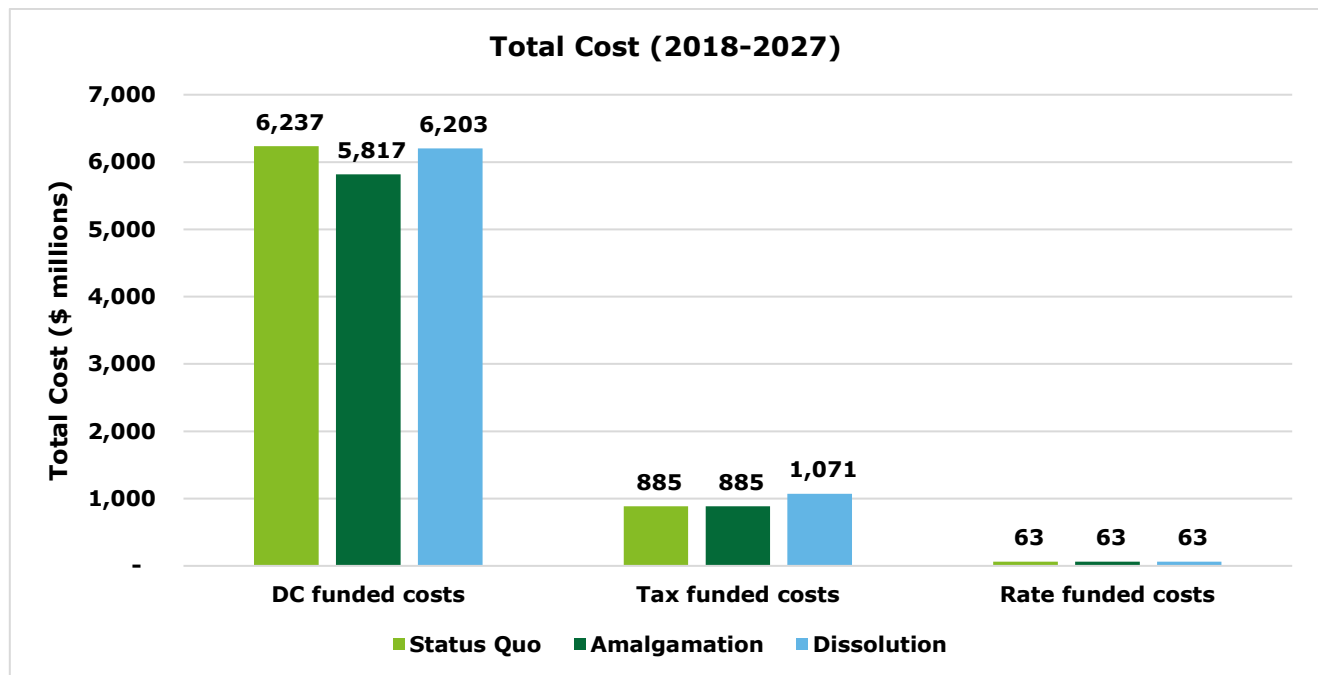
- When estimating the DC quantum in the status quo, the capital costs utilized in each of the respective DC studies were utilized to recreate the DC rates from the background studies (as noted above, these recalculated rates will differ slightly from the DC rates calculated in the background studies as cash-flow costs were not included).
- Each respective DC study utilizes similar forecast periods to calculate a DC, however, there are some services that have varying forecasts (e.g. roads).
- When each of the local municipal growth forecasts (from the DC studies) are aggregated, the total growth forecasted is higher than that used in the Peel Region DC study. As a result, the capital costs identified in the DC studies needed to be adjusted to align with the appropriate timing for the DC calculations.
- As noted above, when addressing the amalgamation DC calculations, and as the growth forecast in the Peel Region DC was lower than the aggregate of the local DC studies, a Post-period benefit deduction was made to reflect the costs that would be associated with growth outside of Peel Region's DC forecast.
- When addressing the dissolution scenarios, as Peel Region's growth forecasts are lower than the aggregate of the locals, amounts were added to the capital program to ensure that the DC calculations reflected the capital needs for the higher growth forecasts.
- As a result, when analyzing the impacts between scenarios, it is important to utilize the DC recoverable amounts as the DC revenues anticipated and to utilize the incremental tax (and rate)-supported costs as an additional cost to include in the tax (and rate) calculations.
- For example, in the dissolution scenario, the 10-year DC recoverable costs are \$36 million lower but the tax-supported costs are \$197 million higher than the tax supported costs in the status quo (in 2017 dollars).

Reduction in DC-recoverable costs for discretionary exemptions:

- As the DC recoverable amounts are based on the total recoverable from DCs (annually), this amount should be further reduced as municipalities provide DC exemptions to specific classes and/or categories of development.
- A recent detailed review of discretionary DC exemptions was undertaken for the City of Hamilton over the 2014-2016 period. That review identified that DC exemptions (for common exemptions) were approximately 5% of the total anticipated DC recoverable amounts identified in their 2014 DC study.
- As data was not available for individual Peel municipalities, the net annual DC recoverable amounts have been reduced by 5% for each municipality to reflect these reductions in revenue.

Results of the DC Analysis

On an overall basis, status quo was considered to be the best governance model given that it shifted less of the tax burden onto the taxpayer than the other two governance models – amalgamation and dissolution.



Forecasted Rate Impact of Wholesale-Retail Model

Consideration was given to the impact of “Option 2: Form a joint utility board for significant assets, but download linear assets to local municipalities” i.e. a Wholesale/retail model. The analysis undertaken was a point in time impact where only the impact of allocating the local distribution (water) and collection (wastewater) assets to the local municipalities along with the adjustment to the non-DC funded portion of growth-related capital works.

Methodology

The analysis provided for the following:

- All assets for water supply, treatment and transmission was included as a combined water board. Replacement costs for all assets shared based on annual flows.
- Localized water distribution assets were allocated to the local municipalities based on location. Each municipality would be responsible for funding through its rate the cost for maintenance and replacement of their assets.
- All assets for wastewater treatment and major conveyance was included as a combined wastewater board. Replacement costs for all assets shared on the current basis (i.e. based on annual metered flows).
- Localized wastewater collection assets were allocated to the local municipalities based on location. Each municipality would be responsible for funding through its rate the cost for maintenance and replacement of their assets.
- Operating Costs were not disaggregated between the wholesale or retail and hence operating costs arising by implementing a two-tier system of service provision were not measured and included at this time.
- The impact of having to cash flow the post-period benefit of growth-related costs were also not included in this assessment. As these costs are related to growth outside the period, municipalities

must cash flow the burden through their rates or other financial sources available to them however it is acknowledged that this may have an added upward pressure on the rates over the 10-year period.

- All debt was included in the wholesale rates.
- Transfers to the State of Good Repair Reserve for 2019 is equal to the annual amount of the average annual expenditure needed for the Asset Replacement. This revenue is allocated based on where it is generated presently (i.e. allocated based on billable flows for each municipality).

Based on 2019 forecasted billable flows (on which the 2019 water and wastewater budget is based), the following is observed for each municipality:

As per 2019:	Water	Wastewater
Net billing amount	\$230,993,233	\$146,054,983
Rate	\$1.47250	\$1.13670
Billable volume (m ³)	156,871,466	128,490,352

Allocation by area	Water (m³)	Water (%)	Wastewater (m³)	Wastewater (%)
Mississauga	86,534,123	55.2%	73,321,857	57.1%
Brampton	64,577,333	41.2%	51,432,715	40.0%
Caledon	5,759,999	3.7%	3,735,780	2.9%
Total	156,871,455	100.0%	128,490,352	100.0%

Allocation of linear assets to support water distribution services, as well as the replacement costs, for each of the Locals can be summarized as follows:

- 60% of the local linear infrastructure will need to be replaced by Mississauga – note that their present billable flows are 55% of the total hence this cost shift will have an upward pressure on the City’s rates
- 42% of the local linear infrastructure will need to be replaced by Brampton – note that their present billable flows are 41% of the total hence this cost shift will have a slight downward pressure on the City’s rates
- 9% of the local linear infrastructure will need to be replaced by Caledon – note that their present billable flows are 3.7% of the total hence this cost shift will have an upward pressure on the Town’s rates

Allocation of linear assets to support wastewater distribution services, as well as the replacement costs, for each of the Locals can be summarized as follows:

- 72% of the local linear infrastructure will need to be replaced by Mississauga – note that their present billable flows are 57.1% of the total hence this cost shift will have an upward pressure on the City’s rates
- 28% of the local linear infrastructure will need to be replaced by Brampton – note that their present billable flows are 40% of the total hence this cost shift will have a downward pressure on the City’s rates
- 0.3% of the local linear infrastructure will need to be replaced by Caledon – note that their present billable flows are 2.9% of the total hence this cost shift will have a downward pressure on the Town’s rates

Appendix G: Bibliography

- Association of Municipalities Ontario. (2018). *Municipal Infrastructure*. Retrieved from Backgrounders: <https://www.amo.on.ca/AMO-Content/Backgrounders/2017/MunicipalInfrastructure>
- Canadian Centre for Economic Analysis. (2014). *Region of Peel Economic Study: Water and Wastewater Infrastructure Investment Beyond 2031*.
- Cannon, N. (2017). *How to Effectively Sell the Shared-Service*. Gartner.
- Cannon, N., & Pagliano, B. (2014). *Public-Sector Shared Services Must Maintain Their Commercial Relevance*. Gartner.
- Dilkens, D. (2014). *A Comparative Analysis of Municipal Government in Ontario: A Pre-Amalgamation and Post-Amalgamation View of Windsor-Essex, Ottawa and the Greater Toronto Area*. International School of Management.
- Dillon Consulting Limited. (2018). *Town of Caledon: Fire Master Plan - Final Report*. Retrieved from Fire and Emergency Services: About: https://www.caledon.ca/en/live/resources/fire/Final_Caledon-FMP_Feb-2018_Web-Optimized2.pdf
- Garrett, M. R. (2001). *Building the New City of Toronto*. The City of Toronto.
- Graham-Watson, L. (2017). *Peel 2041 Growth Allocation and Growth Management Regional Official Plan Amendment - Request to Proceed with Consultation on Draft Amendment*. Retrieved from Report to Regional Council: <https://www.peelregion.ca/planning/officialplan/pdfs/growth-manage/docs-2018/2-Peel-2041-Growth-Allocation-and-Growth-Management-ROPA.pdf>
- Kanellakos, S. (2002). *Transition Progress Report - 2002*. The City of Ottawa.
- Kirkpatrick, K., & McTaggart, T. (2004). *Transition Progress Report - Final*. The City of Ottawa.
- Miljan, L., & Spicer, Z. (2015). *Municipal Amalgamation in Ontario*. Fraser Institute.
- O'Brien, D. (1999). *Report of the Special Advisor, Local Government Reform for Hamilton-Wentworth*. Ontario Municipal Affairs and Housing.
- Queensland Treasury Corporation. (2009). *Review of Local Government Amalgamation Costs Funding Submissions - Final Summary Report*.
- Queensland Treasury Corporation. (2012). *De-amalgamation Analysis of Cairns Regional Council*. Queensland Treasury Council.
- Reese, L. A. (2004). Same Governance, Different Day: Does Metropolitan Reorganization Make a Difference? *Review of Policy Research*, pp. 595-610.
- Reid, C. (2018). *Municipal Infrastructure - Backgrounder*. Retrieved from Association of Municipalities Ontario: <https://www.amo.on.ca/AMO-Content/Backgrounders/2017/MunicipalInfrastructure>

- Riezebos, D. (2014). *De-amalgamation in Queensland*. Retrieved from Local Government Commission: <http://www.lgc.govt.nz/the-reorganisation-process/de-amalgamation-in-queensland/>
- Rinaldo, Joseph L. (2001). *Updated Estimates of Amalgamation Costs for the New City of Hamilton (FCS01010a)*. Retrieved from City Clerk's Meeting Minutes: <http://www2.hamilton.ca/Hamilton.Portal/Inc/PortalPDFs/ClerkPDFs/committee-of-the-whole/2001/mar14/FCS01010a.pdf>
- Scandlan, G. (2019). *Haldimand/Norfolk Arbitration - Allocation of Assets and Liabilities*. Watson and Associates Economists Ltd.
- Schwartz, H. (2001). *The Financial Implications of Amalgamation: the Case of the City of Toronto*. York University. Retrieved from CORE.
- Slack, E., & Bird, R. (2013). Merging Municipalities: Is Bigger Better? *IMFG Papers on Municipal Finance and Governance*.
- Smith, J. (2013). *City of Toronto Study Findings and Proposed Direction for Peel Fire and Paramedic Services Study*. Retrieved from Fire and Paramedic Services Related Study Steering Committee: <https://www.peelregion.ca/council/agendas/pdf/2013/2013-10-03/fpssc-4a.pdf>
- Statistics Canada. (2017). *2016 Census of Population*. Retrieved from Statistics Canada: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- The City of Brampton. (2018). *Executive Summary*. Retrieved from The City of Brampton: <http://www.brampton.ca/EN/City-Hall/Corporate-Asset-Management/Pages/Executive-Summary.aspx#>
- The City of Mississauga. (2018). *Mississauga Infrastructure Fact Sheet*. Retrieved from Cities Now!: http://www.mississauga.ca/file/COM/CitiesNow_factsheet_Jan08.pdf
- The Town of Caledon. (2013). *The Asset Management Plan for the Town of Caledon*.
- The Town of Caledon. (2018). *Town of Caledon Council Meeting Minutes - March 20, 2018*. Retrieved from Agendas and Minutes: <https://www.caledon.ca/en/Calendar/CommitteeMeetings/default.aspx>
- The Town of Caledon. (2019). *Caledon Transit Feasibility Study: Preliminary Findings and Options*. The Town of Caledon.
- Werner, K. (2018). *Hamilton Amalgamation Growing Pains*. Hamilton News.



About Deloitte

Deloitte provides audit & assurance, consulting, financial advisory, risk advisory, tax and related services to public and private clients spanning multiple industries. Deloitte serves four out of five Fortune Global 500® companies through a globally connected network of member firms in more than 150 countries and territories bringing world-class capabilities, insights and service to address clients' most complex business challenges. To learn more about how Deloitte's approximately 264,000 professionals—9,400 of whom are based in Canada—make an impact that matters, please connect with us on [LinkedIn](#), [Twitter](#) or [Facebook](#).

Deloitte LLP, an Ontario limited liability partnership, is the Canadian member firm of Deloitte Touche Tohmatsu Limited. Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private companies limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.