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#### **MEMORANDUM**

To: Lisa, Chen, Township of Brock

From: Andrew Mirabella, Hemson Consulting Ltd

**Date:** March 23, 2023

Re: Review of 2019 Township of Brock Asset Management Plan for consistency

with O. Reg. 588/17

The following outlines a review undertaken by the Township of Brock and Hemson Consulting of the Township's 2019 Asset Management Plan (2019 AMP). As part of the Township's regular review of its AMP, this document aims to undertake a detailed look at the 2019 AMP to ensure that it is consistent with the requirements of O. Reg. 588/17 while at the same time continuing to be the main tool to guide long-term asset management planning in the Township. This memorandum maintains all key inputs from the 2019 AMP and updated the base dataset with the effects of inflation. It is recommended that the Township initiate a more fulsome update of the AMP soon to comply with the 2025 proposed level of service requirements of O. Reg. 588/17 – at this time the key inputs of the 2019 AMP would be updated.

#### A. BACKGROUND

In December 2017, Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure (O. Reg. 588/17) was passed under the *Infrastructure for Jobs and Prosperity Act*. The regulation requires municipalities to develop a Strategic Asset Management Policy, which will help municipalities document the relationship between their Asset Management Plan and existing policies and practices as well as provide guidance for future capital investment decisions. The regulation also contains more specific requirements on the type of analyses municipal asset management plans should include. The aim is to provide guidance to municipalities so that asset management plans are more consistent across the Province. Furthermore, in March 2021 the Province amended the regulation to extend the regulatory timelines by one year.

In 2018, Hemson Consulting was retained by the Township of Brock to prepare a Strategic Asset Management Policy and undertake an Asset Management Plan (2019 AMP) consistent with the requirements of *Ontario Regulation 588/17 Asset Management Planning* 

for Municipal Infrastructure (O. Reg. 588/17). In November 2019, the Plan was prepared which followed the format set out in the *Building Together: Guide for Municipal Asset Management Plans* and defined the current levels of service for all core and non-core assets in compliance with the asset management regulation.

The objectives of the 2019 AMP were to develop a guide for long-term investment decisions for tax funded infrastructure as well as meet the reporting requirements of O. Reg. 588/17. Furthermore, the 2019 AMP was based on development of an Excel based financial model which was provided to staff for use.

One of the key deliverables of the 2019 AMP was to develop a financing strategy to ensure that Township infrastructure is maintained while keeping with the principles of financial sustainability and affordability over the long-term. Three financing strategy options were developed as part of the exercise and Council approved the study and approved the financing strategies in principle with the goal of formally adopting a capital funding increase in the future. Note that the financing strategy is discussed in more detail later in this review.

#### B. OBJECTIVES OF THE AMP REVIEW

Since completion of the 2019 AMP, the Township has continued to improve and adapt lessons learned and best practices to its asset management processes. Notwithstanding the Covid-19 pandemic, which created financial challenges for the Township over the past three years, there has been continued effort to improve both the asset management practices at the Township and continue to fund operating and capital obligations to maintain levels of service. With this in mind, the objective of this review is to determine:

- 1. That the 2019 AMP continues to be consistent with the requirements of O. Reg. 588/17;
- 2. Identify any areas for improvement in the 2019 AMP and address them through this review and identify other improvements which should be addressed in a future plan; and.
- 3. Provide a high level assessment of the progress the Township has made in implementing the 2019 AMP.



To facilitate the review, a line-by-line assessment of the 2019 AMP was developed. Appendix A of this review outlines the key details of the assessment. Appendix A includes the following elements<sup>1</sup>:

- The actual language from the O. Reg. 588/17 outlined by each section;
- A summary, in simplified terms, of the regulation requirement;
- An indication of the relevant section of the 2019 AMP that relates to the specific requirements of the regulation; and
- Action plan notes which relate to whether the particular requirement is complete, in-progress or not complete. If not complete, then an approximate timeline for completion is outlined.

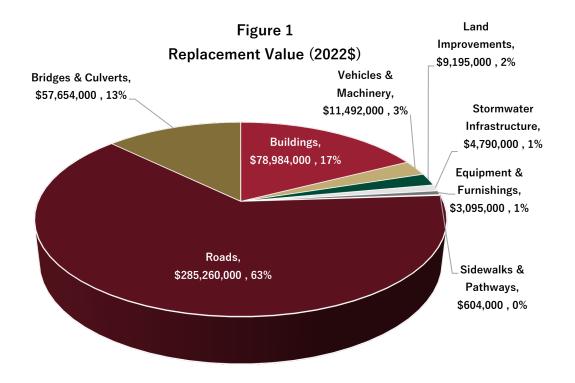
#### C. REVIEW OF STATE OF LOCAL INFRASTRUCTURE

Section 2 of the 2019 AMP outlines a summary of the state of local infrastructure which is complemented with detailed asset report cards in Appendix B of the 2019 Plan for each asset category. Based on the review, the reporting done through the 2019 Plan meets all the requirements of O. Reg. 588/17 in that reports are included for both core and non-core assets. Furthermore, the reports outline a description of the assets in the category, their quantity (where available), replacement cost, remaining useful life (a function of age), and condition assessments and methodology used. Appendix A of this review includes the detailed assessment of the 2019 AMP with reference to the reporting of assets.

Recognizing that inflationary pressures continue to create fiscal challenges for the Township, a review of the replacement values was undertaken at a high-level. Based on the Statistics Canada Non-Residential Construction Price Index, the replacement value of the Township's assets was updated. The total value of the assets amount to approximately \$451.1 million (\$2022). Of this the largest shares continue to be related to the Township's core services of roads, and bridges/culverts. Buildings make up the largest category of noncore infrastructure. Figure 1 below outlines the replacement value breakdown. Importantly, this updated replacement value should be considered to be more representative of the value of the Township's assets today but recognizing that as data continues to be refined, the valuations will again be adjusted in a more fulsome study update during the next AMP.

<sup>&</sup>lt;sup>1</sup> Note that Appendix A Table 1 and 3 are relevant to this review as they relate to requirements of the regulation associated to reporting on current levels of service for core assets (by July 2022) and all other assets (by July 2024). Table 2 relates to reporting on proposed levels of service (by July 2025) which the Township will undertake in a future AMP update.





#### D. REVIEW OF LEVEL OF SERVICE FOR CORE ASSETS

The Township's 2019 AMP included the development of a level of service tracker to identify current levels of service. It is noted that the current levels of service were defined for the core services of roads, bridges/culverts, water, sewer and storm as prescribed by O. Reg. 588/17. Furthermore, the Township included all non-core assets in the 2019 AMP and therefore developed level of service measures for those services with the best available information. It is noted that the Township uses a blended methodology of level of service measures and performance measures.

Based on the Township's review, it has been determined that the current levels of service outlined in the 2019 AMP continue to generally represent the levels of service the Township currently provides and therefore no major changes to the data presented is proposed at this time. However, some level of service measures required by the regulation were not defined at the time of the 2019 AMP due to lack of data available at that time. With this said, the Township has made effort to define the measures on current levels of service through this review based on more current information. The revised level of service table, including additional level of service measures previously undefined, is included in Appendix B of this review. The Township continues to undertake internal improvements of the asset data in preparation for the 2025 proposed level of service requirements of O. Reg. 588/17.

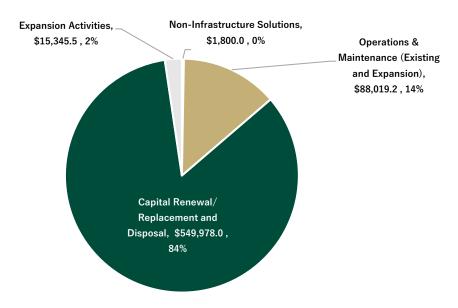


#### E. REVIEW OF FINANCING STRATEGY

The financing strategy lifecycle costs associated to the 2019 AMP have been updated to reflect long-term expenditures that represent more up to date costing based on the Statistics Canada Non-Residential Construction Price Index. Furthermore, the financing strategy analysis has been updated to reflect the full lifecycle costs of the Township's assets as discussed in Section 4 of the 2019 AMP. The expansion activities are generally estimated based on growth assets in the 2019 Development Charges Background Study and recent DC spending trends. Note, that no provisions for level of service adjustments to account for requirements of O. Reg. 588/17 to define and implement proposed levels of service have been included in the analysis – this will be further addressed in the next plan to coincide with the regulatory deadline.

For tax funded services, over the next forty years, the analysis indicates a spending need of about \$655.1 million. Figure 2 summarizes the cumulative 40-year investment needs across the tax supported service areas for the various lifecycle activities identified in Section 4 of the 2019 AMP. Of the total life cycle cost, most costs can be attributed to saving for the renewal and replacement of existing infrastructure making up about \$550.0 million (84%). About \$88.0 million (14%) of the total is related to operating and maintenance costs while any potential future capital infrastructure requirements associated to expansions is estimated at \$15.3 million (2%). The remaining \$1.8 million (less than 1%) is associated to non-infrastructure solutions.

Figure 2
Summary of Lifecycle Cost Model 2022-2061 (\$000)





#### F. COSTS TO MAINTAIN CURRENT LEVELS OF SERVICE

As noted in Part E, costs associated to the full lifecycle of assets have been restated to reflect 2022 dollars and the cumulative full lifecycle costs over the 40-year period. Therefore, a consistent approach has also been used to restate the level of funding currently available to undertake regular capital repair/replacement activities. With this information, a restated analysis of the cumulative 40-year infrastructure gap can be developed if current funding levels are maintained with no further increases.

The 40-year infrastructure deficit shown in Figure 3 represents the difference between the required lifecycle costs and the current contributions to capital, without further increases, for the tax funded assets. The graph indicates that existing funding levels are insufficient to cover projected costs over the planning period; as a result, a gap of \$543.3 million exists over the 40-year period. In order to close this gap, an increase in capital contributions of about \$588,200 per annum would be required over the 40-year period (Table 1). As a result, it is unrealistic to expect the Township to address the total infrastructure deficit in the short-term. Therefore, the three long-term funding strategies that identify options for addressing current and future asset expenditures was developed as part of the 2019 AMP and updated through this memorandum (Tables 2-4)<sup>2</sup>.

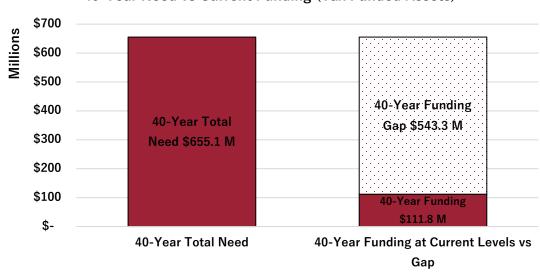


Figure 3
40-Year Need vs Current Funding (Tax Funded Assets)

 $<sup>^2</sup>$  Table 1 represents the baseline scenario to close the cumulative infrastructure gap by 2041 while Tables 2 – 4 illustrate various options to manage the infrastructure deficit.



The financing strategies represent options at maintaining the current levels of service from a long-term perspective. In summary, the following conclusions can be made:

- Township Council approved the study in principle with the goal of formally adopting a capital funding increase in the future. As a result, since the 2019 AMP, capital funding contributions for asset repair and replacement have not materially increased. That said, part of the reason for maintaining capital asset management funding contributions is a result of the COVID-19 pandemic. Moreover, the option to maintain a "do nothing" approach over the long-term and allow the infrastructure back-log to accumulate by not continuing to increase funding would mean that existing funding levels would not be sufficient to manage the infrastructure in place over the long-term. Therefore, the assets in service would deteriorate which could cause a series of assets to move into Poor and Very Poor condition resulting in a reduction in the level of service over the short and long-term period. This scenario is reflected in Figure 3 and would not be the recommended course of action over the long-term.
- A funding strategy more in line with Strategy 3 would strive to ensure, that over the
  long-term, the funding gap-stabilizes and the infrastructure deficit is controlled.
  Under this approach, the additional funding would allow for increased targeted
  investments in asset areas currently in Fair condition to ensure these assets don't
  transition into the Poor category in the next 5 -10 years therefore maintaining the
  existing level of service.
  - Also of importance, the assets in Good/Very Good condition require continued investment to ensure service levels are maintained. As these assets age, they may also transition into Fair or lower category. Continued contributions to reserves will ensure funds are available whenever assets require works to be completed.
- Although funding Strategies 1 and 2 are most fiscally prudent and looks to eliminate
  the infrastructure deficit in the planning horizon, it would require more substantial
  tax rate implications that may be unfeasible at this time.

Importantly, under all options, Hemson has maintained a very conservative approach on the level of grant funding received – only the Canada Community Building Fund (formerly gas tax) is considered a confirmed funding source over the 40-year period while we have assumed a small share of OCIF funding is allocated to capital through to 2041. All other one-time grants, modernization funding or more substantial OCIF funding is not accounted



for in the financing strategy. Should funding be received, the Township's asset management goals could be advanced.

#### G. CONTINOUS IMPROVEMENT

The completion of the 2019 AMP not only provided the Township with the opportunity to develop a plan to develop a sustainable funding strategy for its assets, but also helped the Township to identify the gaps in its asset data. With this in mind, the Township is undertaking several key improvements. These improvements are expected to help develop the information needed to meet the 2025 requirements of O. Reg. 588/17 particularly those to develop proposed levels of service and the costs associated to meeting proposed levels of service. The Township recognizes that a key component of asset management is the principle of continuing to improve its practices. Some initiatives the Township is undertaking include:

- The Township has continued its annual updates of the corporate asset inventory. Based on information from departmental staff and other available reports, work is being done to amalgamate all the information from various sources into a centralized database.
- The Township has developed annual asset management reports in the past to help keep the reporting on assets up to date. It is expected that the Township will continue to develop annual reports on the state of local infrastructure.
- The Township expects to continue to track the current level of service on an annual basis. Furthermore, the Township also expects to better track the specific lifecycle activities and costs needed to maintain the current levels of service at a more granular level. This information will be necessary to help inform development of the proposed levels of service.



Table 1
Township of Brock
Review of 2019 Asset Management Plan
Close Cumulative Infrastructure Deficit by 2058

	1. Lifecycle Costs					2. Forecast of Revenues									3. Funding Gap Calculation		
Year	Non- Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/ Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit	
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 15,936,427	\$ 38,476,874	\$ 41,954,705	
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 2,545,455	\$ 588,155	30.0%	\$ -	\$ 385,281	\$ 350,000		\$ 5,396,341	\$ 27,576,580	\$ 69,531,284	
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268		\$ 30,549,815		\$ 3,133,609		23.1%	-	\$ 385,281	\$ 350,000			\$ 24,560,725	\$ 94,092,010	
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536		\$ 28,948,350		\$ 3,721,764		18.8%	-	\$ 385,281	\$ 350,000		\$ 6,581,838	\$ 22,366,512	\$ 116,458,522	
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 4,309,918		15.8%	-	\$ 385,281	\$ 350,000			\$ 18,891,372	\$ 135,349,894	
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905		\$ 24,280,254	\$ 2,133,981	\$ 4,898,073		13.6%	-	\$ 385,281	\$ 350,000			\$ 16,512,919	\$ 151,862,813	
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126		\$ 20,356,744		\$ 5,486,228		12.0%	-	\$ 385,281	\$ 350,000		\$ 8,360,084	\$ 11,996,660	\$ 163,859,472	
2029 2030	\$ 45,000 \$ 45,000	\$ 2,143,169 \$ 2,147,763	\$ 15,717,082 \$ 14,261,956	\$ 137,716 \$ 157,390	\$ 18,042,967 \$ 16,612,109	\$ 2,143,169 \$ 2,147,763	\$ 6,074,382 \$ 6,662,537	\$ 588,155 \$ 588,155	10.7% 9.7%	-	\$ 385,281 \$ 385,281	\$ 350,000 \$ 350,000		\$ 8,952,833 \$ 9,545,581	\$ 9,090,134	\$ 172,949,607 \$ 180,016,134	
2030	\$ 45,000	\$ 2,147,763	\$ 13,117,353		\$ 15,491,774		\$ 7,250,691	\$ 588,155	9.7% 8.8%	- \$	\$ 385,281	\$ 350,000		\$ 10,138,330	\$ 7,066,528 \$ 5,353,444	\$ 185,369,578	
2031	\$ 45,000	\$ 2,156,951	\$ 11,929,716		\$ 14,328,405		\$ 7,838,846	\$ 588,155	8.1%	\$ -	\$ 385,281	\$ 350,000		\$ 10,731,078	\$ 3,597,326	\$ 188,966,904	
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728		\$ 14,185,684	\$ 2,161,545	\$ 8,427,001	\$ 588,155	7.5%	\$ -	\$ 385,281	\$ 350,000		\$ 11,323,827	\$ 2,861,857	\$ 191,828,762	
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138		\$ 13,913,361	\$ 2,166,139	\$ 9,015,155		7.0%	\$ -	\$ 385,281	\$ 350,000		\$ 11,916,576		\$ 193,825,547	
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 9,603,310	\$ 588,155	6.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 12,509,324	\$ 1,240,936	\$ 195,066,484	
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 10,191,465	\$ 588,155	6.1%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 13,102,073	\$ (296,750)	\$ 194,769,734	
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175	\$ 2,179,921	\$ 10,779,619	\$ 588,155	5.8%	\$ -	\$ 385,281	\$ 350,000		\$ 13,694,821	\$ (1,015,647)	\$ 193,754,087	
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112		\$ 12,703,406	\$ 2,184,515	\$ 11,367,774		5.5%	\$ -	\$ 385,281	\$ 350,000		\$ 14,287,570	\$ (1,584,164)	\$ 192,169,923	
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 11,955,928	\$ 588,155	5.2%	-	\$ 385,281	\$ 350,000		\$ 14,880,319	\$ (2,158,147)	\$ 190,011,776	
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155		\$ 12,544,083	\$ 588,155	4.9%	-	\$ 385,281	\$ 350,000		\$ 15,473,067	\$ (2,851,912)	\$ 187,159,863	
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066		\$ 13,132,238	\$ 588,155	4.7%	- -	\$ 385,281	\$ 350,000	- L	\$ 16,065,816	\$ (3,416,750)	\$ 183,743,113	
2042 2043	\$ 45,000 \$ 45,000	\$ 2,202,891 \$ 2,207,485	\$ 10,029,906 \$ 10,028,707	\$ 393,474 \$ 413,148	\$ 12,671,272 \$ 12,694,339	\$ 2,202,891 \$ 2,207,485	\$ 13,720,392 \$ 14,308,547	\$ 588,155 \$ 588,155	4.5% 4.3%	- ¢	\$ 385,281 \$ 385,281	Ф -	-	\$ 16,308,565 \$ 16,901,313	\$ (3,637,293) \$ (4,206,974)	\$ 180,105,820 \$ 175,898,847	
2043	\$ 45,000		\$ 10,028,707		\$ 12,701,002	\$ 2,212,079	\$ 14,896,701	\$ 588,155	4.3% Δ 1%	\$ -	\$ 385,281	\$ -	\$ -	\$ 17,494,062	\$ (4,793,059)	\$ 171,105,787	
2045	\$ 45,000						\$ 15,484,856		3.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 18,086,810		\$ 165,743,468	
2046	\$ 45,000		\$ 9,989,652				\$ 16,073,011	\$ 588,155	3.8%	\$ -	\$ 385,281		\$ -	\$ 18,679,559		\$ 159,791,997	
2047	\$ 45,000		\$ 9,988,112				\$ 16,661,165		3.7%	\$ -	\$ 385,281		\$ -	ф 10.070.000		\$ 153,270,505	
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112	\$ 511,516	\$ 12,775,084	\$ 2,230,455	\$ 17,249,320	\$ 588,155	3.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 19,865,056	\$ (7,089,973)	\$ 146,180,532	
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862	\$ 531,190	\$ 12,667,102	\$ 2,235,049	\$ 17,837,474	\$ 588,155	3.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 20,457,805	\$ (7,790,703)	\$ 138,389,829	
2050	\$ 45,000		\$ 9,855,862				\$ 18,425,629		3.3%	\$ -	\$ 385,281		\$ -	\$ 21,050,553	\$ (8,359,184)	\$ 130,030,645	
2051	\$ 45,000		\$ 9,819,516		\$ 12,679,290		\$ 19,013,784		3.2%	-	\$ 385,281			\$ 21,643,302		\$ 121,066,633	
2052	\$ 45,000		\$ 9,819,516		\$ 12,703,558		\$ 19,601,938		3.1%	-	\$ 385,281		-	\$ 22,236,051	\$ (9,532,492)	\$ 111,534,141	
2053	\$ 45,000		\$ 9,819,516		\$ 12,727,826		\$ 20,190,093		3.0%	-	\$ 385,281		-	\$ 22,828,799	\$ (10,100,973)	\$ 101,433,168	
2054	\$ 45,000						\$ 20,778,247		2.9%	- -	\$ 385,281		- L	\$ 23,421,548	\$ (10,675,125)	\$ 90,758,043	
2055 2056	\$ 45,000 \$ 45,000		\$ 9,813,846 \$ 9,813,747		\$ 12,770,691 \$ 12,794,860		\$ 21,366,402 \$ 21,954,557		2.8% 2.8%	- \$	\$ 385,281 \$ 385,281		Φ -	\$ 24,014,296 \$ 24,607,045	\$ (11,243,606) \$ (11,812,185)	\$ 79,514,437 \$ 67,702,252	
2056	\$ 45,000		\$ 9,813,747		\$ 12,794,800		\$ 21,954,557		2.7%	- -	\$ 385,281		- L \$ - L	\$ 25,199,794	\$ (12,380,666)	\$ 55,321,586	
2058	\$ 45,000		\$ 9,788,343				\$ 23,130,866		2.6%	-	\$ 385,281		\$ -	\$ 25,792,542	\$ (12,974,551)	\$ 42,347,035	
2059	\$ 45,000		\$ 9,788,343		\$ 12,842,259		\$ 23,719,021		2.5%	-	\$ 385,281		\$ -	\$ 26,385,291	\$ (13,543,032)	\$ 28,804,003	
2060	\$ 45,000		\$ 9,782,095		\$ 12,860,278		\$ 24,307,175		2.5%	-	\$ 385,281		-	\$ 26,978,039	\$ (14,117,761)	\$ 14,686,242	
2061	\$ 45,000		\$ 9,782,095				\$ 24,895,330			\$ -	\$ 385,281		\$ -	\$ 27,570,788			
40-Year Infras	structure Deficit				\$ 655,142,612									\$ 658,620,443			

Total Tax Funding \$ 535,095,295

2022 Total Tax Levy \$ 9,723,191
Inc. as % of Tax Levy 6.05%

Table 2
Township of Brock
Review of 2019 Asset Management Plan
Financing Strategy 1: Close In-Year Funding Gap by 2041

Legend		1. Life	ecycle Costs				2. Forecast of Revenues								3. Funding Gap Calculation		
Year	Non- Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/ Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit	
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228	\$ 377,000		\$ 13,830,010	\$ 40,583,291	\$ 44,061,122	
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920		\$ 2,481,326	\$ 524,026	26.8%	-	\$ 385,281	\$ 350,000			\$ 29,756,314	\$ 73,817,436	
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 3,005,351	\$ 524,026	21.1%	-	\$ 385,281	\$ 350,000		-,,	\$ 26,809,183	\$ 100,626,619	
2025	\$ 45,000 \$ 45,000	\$ 2,124,793 \$ 2,129,387	\$ 26,719,536 \$ 23,812,877	\$ 59,021 \$ 78,695	\$ 28,948,350 \$ 26,065,959	\$ 2,124,793 \$ 2,129,387	\$ 3,529,377 \$ 4,053,402	\$ 524,026 \$ 524,026	17.4% 14.8%	- •	\$ 385,281 \$ 385,281	\$ 350,000 \$ 350,000		\$ 4,264,658 \$ 4,788,683	\$ 24,683,692 \$ 21,277,276	\$ 125,310,311 \$ 146,587,587	
2026 2027	\$ 45,000	\$ 2,129,387	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,129,387	\$ 4,577,428		12.9%	- ¢ -	\$ 385,281	\$ 350,000		\$ 5,312,709		\$ 165,555,132	
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744		\$ 5,101,453		11.4%		\$ 385,281	\$ 350,000		\$ 5,836,734	\$ 14,520,009	\$ 180,075,142	
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 5,625,479		10.3%	\$ -	\$ 385,281	\$ 350,000		\$ 6,360,760	\$ 11,682,207	\$ 191,757,349	
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109		\$ 6,149,504		9.3%	\$ -	\$ 385,281	\$ 350,000		\$ 6,884,785	\$ 9,727,324	\$ 201,484,672	
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 6,673,530	\$ 524,026	8.5%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,408,811	\$ 8,082,963	\$ 209,567,635	
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 7,197,555	\$ 524,026	7.9%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,932,836	\$ 6,395,568	\$ 215,963,204	
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 7,721,581	\$ 524,026	7.3%	-	\$ 385,281	\$ 350,000	\$ -	\$ 8,456,862	\$ 5,728,823	\$ 221,692,026	
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 8,245,606	\$ 524,026	6.8%	\$ -	\$ 385,281	\$ 350,000	-	\$ 8,980,887	\$ 4,932,474	\$ 226,624,500	
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 8,769,632	\$ 524,026	6.4%	-	\$ 385,281	\$ 350,000		\$ 9,504,913	\$ 4,245,348	\$ 230,869,848	
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 9,293,657	\$ 524,026	6.0%	-	\$ 385,281	\$ 350,000		\$ 10,028,938	\$ 2,776,384	\$ 233,646,232	
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175		\$ 9,817,683	\$ 524,026	5.6%	-	\$ 385,281	\$ 350,000		\$ 10,552,964	\$ 2,126,211	\$ 235,772,443	
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406		\$ 10,341,708		5.3%		\$ 385,281	\$ 350,000		\$ 11,076,989	\$ 1,626,417	\$ 237,398,860	
2039 2040	\$ 45,000 \$ 45,000	\$ 2,189,109 \$ 2,193,703	\$ 10,153,609 \$ 10,028,325	\$ 334,453 \$ 354,127	\$ 12,722,171 \$ 12,621,155	\$ 2,189,109 \$ 2,193,703	\$ 10,865,734 \$ 11,389,759		5.1% 4.8%		\$ 385,281 \$ 385,281	\$ 350,000 \$ 350,000		\$ 11,601,015 \$ 12,125,040	\$ 1,121,157 \$ 496,115	\$ 238,520,017 \$ 239,016,132	
2040	\$ 45,000	\$ 2,193,703	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 11,369,759 \$ 11,913,785		4.6%	- Φ -	\$ 385,281	\$ 350,000		\$ 12,123,040	\$ 490,113 ¢ _	\$ 239,016,132	
2041	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 12,437,810	\$ 524,026	4.4%	\$ -	\$ 385,281	\$ 550,000	\$ -	\$ 12,823,091	\$ (151,820)	\$ 238,864,312	
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 12,961,836	\$ 524,026	4.2%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,347,117	\$ (652,777)	\$ 238,211,534	
2044	\$ 45,000		\$ 10,011,102		\$ 12,701,002	\$ 2,212,079	\$ 13,485,861	\$ 524,026	4.0%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,871,142		\$ 237,041,394	
2045	\$ 45,000					\$ 2,216,673			3.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,395,168		\$ 235,370,717	
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 14,533,912	\$ 524,026	3.7%	-	\$ 385,281	\$ -	\$ -	\$ 14,919,193	\$ (2,191,106)	\$ 233,179,612	
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112	\$ 491,843	\$ 12,750,816	\$ 2,225,861	\$ 15,057,938	\$ 524,026	3.6%	-	\$ 385,281	\$ -	-	\$ 15,443,219	\$ (2,692,403)	\$ 230,487,209	
2048	\$ 45,000		\$ 9,988,112				\$ 15,581,963		3.5%	-	\$ 385,281		-	\$ 15,967,244		\$ 227,295,048	
2049	\$ 45,000		\$ 9,855,862				\$ 16,105,989		3.4%	-	\$ 385,281		-	\$ 16,491,270		\$ 223,470,880	
2050	\$ 45,000		\$ 9,855,862				\$ 16,630,014		3.3%	-	\$ 385,281		-	\$ 17,015,295		\$ 219,146,953	
2051	\$ 45,000		\$ 9,819,516		\$ 12,679,290		\$ 17,154,040		3.2%	-	\$ 385,281		-	\$ 17,539,321	\$ (4,860,030)	\$ 214,286,923	
2052	\$ 45,000		\$ 9,819,516		\$ 12,703,558		\$ 17,678,065		3.1%		\$ 385,281		-   •	\$ 18,063,346	\$ (5,359,788)	\$ 208,927,135	
2053 2054	\$ 45,000 \$ 45,000	\$ 2,253,425 \$ 2,258,019	\$ 9,819,516 \$ 9,813,846		\$ 12,727,826 \$ 12,746,423		\$ 18,202,091 \$ 18,726,116		3.0% 2.9%	- Φ	\$ 385,281 \$ 385,281		-   φ	\$ 18,587,372 \$ 19,111,397	\$ (5,859,546) \$ (6,364,974)	\$ 203,067,589 \$ 196,702,614	
2054	\$ 45,000		\$ 9,813,846		\$ 12,770,691	\$ 2,262,613	\$ 19,250,142		2.8%	- S	\$ 385,281		\$ -	\$ 19,635,423	\$ (6,864,732)	\$ 189,837,882	
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747		\$ 12,7794,860		\$ 19,774,167		2.7%	\$ -	\$ 385,281		\$ -	\$ 20,159,448	\$ (7,364,589)	\$ 182,473,294	
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747			\$ 2,271,801	\$ 20,298,193		2.7%	-	\$ 385,281		-	\$ 20,683,474		\$ 174,608,947	
2058	\$ 45,000		\$ 9,788,343			\$ 2,276,395	\$ 20,822,218		2.6%	-	\$ 385,281		\$ -	\$ 21,207,499		\$ 166,219,439	
2059	\$ 45,000		\$ 9,788,343		\$ 12,842,259		\$ 21,346,244		2.5%	\$ -	\$ 385,281		-	\$ 21,731,525		\$ 157,330,173	
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 21,870,269	\$ 524,026	2.5%	-	\$ 385,281	\$ -	\$ -	\$ 22,255,550	\$ (9,395,272)	\$ 147,934,901	
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 22,394,295	\$ 524,026	2.4%	-	\$ 385,281	\$ -	-	\$ 22,779,576	\$ (9,895,030)	\$ 138,039,871	
40-Year Infra	structure Deficit				\$ 655,142,612									\$ 520,580,572	\$ 134,562,040		

Total Tax Funding	\$ 485,074,595
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	5.39%

Table 3

Township of Brock

Review of 2019 Asset Management Plan

Financing Strategy 2: Close In-Year Funding Gap by 2051

Legend			1. Lifec	ycle Costs			2. Forecast of Revenues							3. F	3. Funding Gap Calculation		
Year	Non- Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/ Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit	
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883	\$ -	\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228	\$ 377,000	\$ -	\$ 13,830,010	\$ 40,583,291	\$ 37,609,491	
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920		\$ 2,313,738		18.2%	-	\$ 385,281	\$ 350,000		\$ 3,049,019	\$ 29,923,901	\$ 67,533,392	
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 2,670,177	\$ 356,438	15.4%	-	\$ 385,281	\$ 350,000		\$ 3,405,458	\$ 27,144,357	\$ 94,677,749	
2025	\$ 45,000	\$ 2,124,793	\$ 26,719,536	\$ 59,021	\$ 28,948,350	\$ 2,124,793	\$ 3,026,615	\$ 356,438	13.3%	-	\$ 385,281	\$ 350,000		, ,	\$ 25,186,454	\$ 119,864,203	
2026	\$ 45,000	\$ 2,129,387	\$ 23,812,877	\$ 78,695	\$ 26,065,959	\$ 2,129,387	\$ 3,383,053	\$ 356,438	11.8%	-	\$ 385,281	\$ 350,000		Ψ 1,110,001	\$ 21,947,625	\$ 141,811,828	
2027	\$ 45,000	\$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,133,981	\$ 3,739,491	\$ 356,438	10.5%	-	\$ 385,281	\$ 350,000		, ,	\$ 19,805,482	\$ 161,617,310	
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 4,095,930		9.5%	-	\$ 385,281	\$ 350,000		\$ 4,831,211	\$ 15,525,533	\$ 177,142,843	
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 4,452,368		8.7%	-	\$ 385,281	\$ 350,000		\$ 5,187,649	\$ 12,855,318	\$ 189,998,161	
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 4,808,806		8.0%	-	\$ 385,281	\$ 350,000		\$ 5,544,087	\$ 11,068,022	\$ 201,066,182	
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353		\$ 15,491,774		\$ 5,165,244		7.4%	-	\$ 385,281	\$ 350,000		\$ 5,900,525	\$ 9,591,248	\$ 210,657,430	
2032	\$ 45,000 \$ 45,000	\$ 2,156,951	\$ 11,929,716 \$ 11,762,728	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 5,521,683		6.9%		\$ 385,281	\$ 350,000		\$ 6,256,964	\$ 8,071,441	\$ 218,728,871	
2033 2034	\$ 45,000 \$ 45,000	\$ 2,161,545 \$ 2,166,139	\$ 11,466,138	\$ 216,411 \$ 236,084	\$ 14,185,684 \$ 13,913,361	\$ 2,161,545 \$ 2,166,139	\$ 5,878,121 \$ 6,234,559	\$ 356,438 \$ 356,438	6.5% 6.1%	- φ	\$ 385,281 \$ 385,281	\$ 350,000 \$ 350,000		\$ 6,613,402 \$ 6,969,840	\$ 7,572,282 \$ 6,943,521	\$ 226,301,154 \$ 233,244,675	
2034	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 6,590,997	\$ 356,438	5.7%	- φ -	\$ 385,281	\$ 350,000		\$ 7,326,278	\$ 6,423,982	\$ 239,668,657	
2035	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 6,947,436		5.4%	φ - ¢ -	\$ 385,281	\$ 350,000		\$ 7,682,717	\$ 5,122,606	\$ 244,791,263	
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106	\$ 12,679,175		\$ 7,303,874		5.1%	φ • -	\$ 385,281	\$ 350,000		\$ 8,039,155	\$ 4,640,020	\$ 249,431,283	
2038	\$ 45,000	\$ 2,184,515	\$ 10,159,112	\$ 314,779	\$ 12,703,406	\$ 2,184,515	\$ 7,660,312	\$ 356,438	4.9%	\$ -	\$ 385,281	\$ 350,000		\$ 8,395,593	\$ 4,307,813	\$ 253,739,096	
2039	\$ 45,000	\$ 2,189,109	\$ 10,153,609	\$ 334,453	\$ 12,722,171	\$ 2,189,109	\$ 8,016,750		4.7%	\$ -	\$ 385,281	\$ 350,000		\$ 8,752,031	\$ 3,970,140	\$ 257,709,235	
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155	\$ 2,193,703	\$ 8,373,189		4.4%	- ·	\$ 385,281	\$ 350,000		\$ 9,108,470	\$ 3,512,685	\$ 261,221,921	
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 8,729,627	\$ 356,438	4.3%	-	\$ 385,281	\$ 350,000	\$ -	\$ 9,464,908	\$ 3,184,158	\$ 264,406,079	
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 9,086,065		4.1%	-	\$ 385,281	\$ -	\$ -	\$ 9,471,346	\$ 3,199,925	\$ 267,606,004	
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 9,442,503	\$ 356,438	3.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 9,827,784	\$ 2,866,555	\$ 270,472,559	
2044	\$ 45,000	\$ 2.212.079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 9,798,942		3.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,184,223	\$ 2,516,780	\$ 272,989,339	
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323				\$ 10,155,380		3.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 10,540,661	\$ 2,183,830	\$ 275,173,169	
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652			\$ 2,221,267	\$ 10,511,818		3.5%	\$ -	\$ 385,281		\$ -	\$ 10,897,099		\$ 277,004,157	
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112				\$ 10,868,256		3.4%	\$ -	\$ 385,281		\$ -	\$ 11,253,537		\$ 278,501,436	
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112				\$ 11,224,695		3.3%	\$ -	\$ 385,281		\$ -	\$ 11,609,976		\$ 279,666,543	
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862		\$ 12,667,102	\$ 2,235,049	\$ 11,581,133		3.2%	\$ -	\$ 385,281		\$ -	\$ 11,966,414		\$ 280,367,231	
2050	\$ 45,000	\$ 2,239,643	\$ 9,855,862		\$ 12,691,369		\$ 11,937,571		3.1%	\$ -	\$ 385,281		\$ -	\$ 12,322,852	\$ 368,517	\$ 280,735,748	
2051	\$ 45,000	\$ 2,244,237	\$ 9,819,516		\$ 12,679,290		\$ 12,294,009		3.0%	\$ -	\$ 385,281		\$ -	\$ 12,679,290		\$ 280,735,748	
2052	\$ 45,000	\$ 2,248,831	\$ 9,819,516	\$ 590,211	\$ 12,703,558	\$ 2,248,831	\$ 12,650,448	\$ 356,438	2.9%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,035,729	\$ (332,171)	\$ 280,403,577	
2053	\$ 45,000	\$ 2,253,425	\$ 9,819,516	\$ 609,885	\$ 12,727,826	\$ 2,253,425	\$ 13,006,886	\$ 356,438	2.8%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,392,167	\$ (664,341)	\$ 279,739,236	
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846	\$ 629,558	\$ 12,746,423	\$ 2,258,019	\$ 13,363,324	\$ 356,438	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 13,748,605	\$ (1,002,182)	\$ 278,737,054	
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846	\$ 649,232	\$ 12,770,691	\$ 2,262,613	\$ 13,719,762	\$ 356,438	2.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,105,043	\$ (1,334,353)	\$ 277,402,702	
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 14,076,201	\$ 356,438	2.6%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,461,482	\$ (1,666,622)	\$ 275,736,080	
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 14,432,639	\$ 356,438	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 14,817,920	\$ (1,998,793)	\$ 273,737,287	
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343	\$ 708,253	\$ 12,817,991	\$ 2,276,395	\$ 14,789,077	\$ 356,438	2.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 15,174,358	\$ (2,356,367)	\$ 271,380,920	
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 15,145,515	\$ 356,438	2.4%	-	\$ 385,281	\$ -	-	\$ 15,530,796	\$ (2,688,537)	\$ 268,692,383	
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095	\$ 747,601	\$ 12,860,278	\$ 2,285,583	\$ 15,501,954	\$ 356,438	2.4%	-	\$ 385,281	\$ -	-	\$ 15,887,235	\$ (3,026,956)	\$ 265,665,427	
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095	\$ 767,274	\$ 12,884,546	\$ 2,290,177	\$ 15,858,392	\$ 356,438	2.3%	-	\$ 385,281	\$ -	\$ -	\$ 16,243,673	\$ (3,359,127)	\$ 262,306,300	
40-Year Infras	structure Deficit				\$ 655,142,612									\$ 389,862,512	\$ 265,280,100		

Total Tax Funding	\$ 354,356,535
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	3.67%

Table 4
Township of Brock
Review of 2019 Asset Management Plan
Financing Strategy 3: Close In-Year Funding Gap by 2061

Legend			1. Lifec	ycle Costs						2. Forecast of Revenu	ies			3. Funding Gap Calculation		
Year	Non- Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/ Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883		\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482				\$ 13,830,010	\$ 40,583,291	\$ 37,739,525
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920	\$ 2,115,605	\$ 2,227,607	\$ 270,307	13.8%	-	\$ 385,281	\$ 350,000		\$ 2,962,888	\$ 30,010,032	\$ 67,749,558
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815	\$ 2,120,199	\$ 2,497,914		12.1%	-	\$ 385,281	\$ 350,000		+ -,,	\$ 27,316,620	
2025 2026	\$ 45,000 \$ 45,000	\$ 2,124,793	\$ 26,719,536 \$ 23,812,877	\$ 59,021 \$ 78,695	\$ 28,948,350 \$ 26,065,959	\$ 2,124,793 \$ 2,129,387	\$ 2,768,220 \$ 3,038,527	\$ 270,307 \$ 270,307	10.8% 9.8%	-	\$ 385,281 \$ 385,281	\$ 350,000 \$ 350,000		, ,	\$ 25,444,848 \$ 22,292,151	\$ 120,511,026 \$ 142,803,177
2020	\$ 45,000	\$ 2,129,387 \$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 24,280,254	\$ 2,129,367	\$ 3,308,834	\$ 270,307	8.9%	- \$ -	\$ 385,281	\$ 350,000			\$ 20,236,139	\$ 163,039,316
2028	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744	\$ 2,138,575	\$ 3,579,141	\$ 270,307	8.2%	- -	\$ 385,281	\$ 350,000		\$ 4,314,422	\$ 16,042,322	\$ 179,081,638
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082		\$ 18,042,967	\$ 2,143,169	\$ 3,849,448		7.6%	\$ -	\$ 385,281	\$ 350,000		\$ 4,584,729	\$ 13,458,238	
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 4,119,754		7.0%	\$ -	\$ 385,281	\$ 350,000		\$ 4,855,036	\$ 11,757,073	\$ 204,296,949
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774	\$ 2,152,357	\$ 4,390,061	\$ 270,307	6.6%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,125,342	\$ 10,366,431	\$ 214,663,381
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 4,660,368	\$ 270,307	6.2%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,395,649	\$ 8,932,755	\$ 223,596,136
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 4,930,675	\$ 270,307	5.8%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 5,665,956	\$ 8,519,728	\$ 232,115,865
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 5,200,982	\$ 270,307	5.5%	-	\$ 385,281	\$ 350,000		\$ 5,936,263	\$ 7,977,099	
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769	\$ 255,758	\$ 13,750,261	\$ 2,170,733	\$ 5,471,288	\$ 270,307	5.2%	-	\$ 385,281	\$ 350,000		\$ 6,206,569	\$ 7,543,691	\$ 247,636,654
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 5,741,595		4.9%	-	\$ 385,281	\$ 350,000		\$ 6,476,876	\$ 6,328,446	\$ 253,965,101
2037	\$ 45,000 \$ 45,000	\$ 2,179,921	\$ 10,159,148	\$ 295,106 \$ 314,779	\$ 12,679,175 \$ 12,703,406		\$ 6,011,902	\$ 270,307 \$ 270,307	4.7%	-	\$ 385,281	\$ 350,000 \$ 350,000		\$ 6,747,183	\$ 5,931,992	\$ 259,897,092
2038 2039	\$ 45,000	\$ 2,184,515 \$ 2,189,109	\$ 10,159,112 \$ 10,153,609	\$ 334,453	\$ 12,703,400 \$ 12,722,171	\$ 2,184,515 \$ 2,189,109	\$ 6,282,209 \$ 6,552,515		4.5% 4.3%	- φ -	\$ 385,281 \$ 385,281	\$ 350,000		\$ 7,017,490 \$ 7,287,797	\$ 5,685,916 \$ 5,434,375	\$ 265,583,009 \$ 271,017,383
2040	\$ 45,000	\$ 2,193,703	\$ 10,028,325	\$ 354,127	\$ 12,621,155		\$ 6,822,822	\$ 270,307	4.1%	- S	\$ 385,281	\$ 350,000		\$ 7,558,103	\$ 5,063,052	\$ 276,080,435
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 7,093,129		4.0%	\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 7,828,410	\$ 4,820,656	\$ 280,901,091
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272	\$ 2,202,891	\$ 7,363,436		3.8%	-	\$ 385,281	\$ -	\$ -	\$ 7,748,717	\$ 4,922,554	\$ 285,823,645
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 7,633,743	\$ 270,307	3.7%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,019,024	\$ 4,675,316	\$ 290,498,961
2044	\$ 45,000	\$ 2,212,079	\$ 10,011,102	\$ 432,821	\$ 12,701,002	\$ 2,212,079	\$ 7,904,049	\$ 270,307	3.5%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,289,331	\$ 4,411,672	\$ 294,910,632
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323			\$ 2,216,673			3.4%	\$ -	\$ 385,281	\$ -	\$ -	\$ 8,559,637		
2046	\$ 45,000		\$ 9,989,652				\$ 8,444,663		3.3%	-	\$ 385,281		\$ -	Ψ σ,σ=σ,σ · ·		
2047	\$ 45,000		\$ 9,988,112				\$ 8,714,970		3.2%	-	\$ 385,281		-	. , ,	\$ 3,650,565	
2048	\$ 45,000		\$ 9,988,112				\$ 8,985,277		3.1%	-	\$ 385,281		\$ -	+ -,,	\$ 3,404,526	
2049	\$ 45,000 \$ 45,000		\$ 9,855,862 \$ 9,855,862		\$ 12,667,102 \$ 12,691,369		\$ 9,255,583 \$ 9,525,890		3.0% 2.9%	-	\$ 385,281 \$ 385,281		5 -	φ σ,σ,σ,σσσ		\$ 313,054,957 \$ 315,835,155
2050 2051	\$ 45,000		\$ 9,819,516				\$ 9,796,197		2.8%	- \$ -	\$ 385,281		\$ -	\$ 9,911,171 \$ 10,181,478		
2052	\$ 45,000		\$ 9,819,516		\$ 12,703,558		\$ 10,066,504		2.8%	-	\$ 385,281		\$ -	\$ 10,451,785		
2053	\$ 45,000		\$ 9,819,516		\$ 12,727,826		\$ 10,336,811		2.7%	\$ -	\$ 385,281		\$ -	\$ 10,722,092		
2054	\$ 45,000		\$ 9,813,846		\$ 12,746,423		\$ 10,607,117		2.6%	-	\$ 385,281		\$ -	\$ 10,992,399		
2055	\$ 45,000		\$ 9,813,846			\$ 2,262,613	\$ 10,877,424		2.5%	\$ -	\$ 385,281		\$ -	\$ 11,262,705		
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747	\$ 668,906	\$ 12,794,860	\$ 2,267,207	\$ 11,147,731	\$ 270,307	2.5%	-	\$ 385,281	\$ -	\$ -	\$ 11,533,012	\$ 1,261,848	\$ 327,114,332
2057	\$ 45,000	\$ 2,271,801	\$ 9,813,747	\$ 688,580	\$ 12,819,127	\$ 2,271,801	\$ 11,418,038	\$ 270,307	2.4%	-	\$ 385,281	\$ -	\$ -	\$ 11,803,319	\$ 1,015,808	\$ 328,130,140
2058	\$ 45,000		\$ 9,788,343			\$ 2,276,395	\$ 11,688,345		2.4%	\$ -	\$ 385,281		\$ -	\$ 12,073,626		
2059	\$ 45,000		\$ 9,788,343		\$ 12,842,259		\$ 11,958,651		2.3%	-	\$ 385,281		\$ -	\$ 12,343,933		\$ 329,372,833
2060	\$ 45,000		\$ 9,782,095		\$ 12,860,278		\$ 12,228,958		2.3%	-	\$ 385,281		\$ -	\$ 12,614,239		
2061	\$ 45,000		\$ 9,782,095		\$ 12,884,546	\$ 2,290,177	\$ 12,499,265	\$ 270,307	2.2%	-	\$ 385,281	\$ -	\$ -	\$ 12,884,546		\$ 329,618,872
	\$ 1,800,000	\$ 88,019,171	\$ 549,977,953	\$ 15,345,487	\$ 655,142,612									\$ 322,679,974	\$ 332,462,637	

Total Tax Funding	\$ 287,173,998
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	2.78%

Table 5
Township of Brock
Review of 2019 Asset Management Plan
No Yearly Increase Scenario

Legend			1. Lifec	ycle Costs				2. Forecast of Revenues							3. Funding Gap Calculation		
Year	Non- Infrastructure Solutions	Operations & Maintenance (Existing and Expansion)	Capital Renewal/ Replacement and Disposal	Expansion Activities	Total Lifecycle Costs	O&M from Taxation	Capital from Taxation	Yearly Increase in Capital Tax Levy (\$)	Yearly Increase in Capital Tax Levy (%)	Reserves/Reserve Funds	Canada Community Building Fund CCBF (formerly Gas Tax)	OCIF & Other Grants	Other Revenue	Total Funding	Annual Funding Gap	Cumulative Infrastructure Deficit	
2022	\$ 45,000	\$ 2,106,417	\$ 52,261,883		\$ 54,413,301	\$ 2,106,417	\$ 1,957,300			\$ 11,126,482	\$ 369,228			\$ 13,830,010	\$ 40,583,291	\$ 37,739,525	
2023	\$ 45,000	\$ 2,115,605	\$ 30,792,642	\$ 19,674	\$ 32,972,920		\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 30,280,339	\$ 68,019,865	
2024	\$ 45,000	\$ 2,120,199	\$ 28,345,268	\$ 39,347	\$ 30,549,815		\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 27,857,234	\$ 95,877,099	
2025	\$ 45,000 \$ 45,000	\$ 2,124,793	\$ 26,719,536 \$ 23,812,877	\$ 59,021 \$ 78,695	\$ 28,948,350		\$ 1,957,300 \$ 1,957,300			\$ -	\$ 385,281	\$ 350,000 \$ 350,000		\$ 2,692,581	\$ 26,255,769	\$ 122,132,867 \$ 145,506,245	
2026 2027	\$ 45,000	\$ 2,129,387 \$ 2,133,981	\$ 22,002,905	\$ 98,369	\$ 26,065,959 \$ 24,280,254	\$ 2,129,387 \$ 2,133,981	\$ 1,957,300 \$ 1,957,300			Ф -	\$ 385,281 \$ 385,281	\$ 350,000		\$ 2,692,581 \$ 2,692,581	\$ 23,373,378 \$ 21,587,673	\$ 167,093,918	
2027	\$ 45,000	\$ 2,138,575	\$ 18,055,126	\$ 118,042	\$ 20,356,744		\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000			\$ 17,664,162	\$ 184,758,081	
2029	\$ 45,000	\$ 2,143,169	\$ 15,717,082	\$ 137,716	\$ 18,042,967	\$ 2,143,169	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000			\$ 15,350,386	\$ 200,108,466	
2030	\$ 45,000	\$ 2,147,763	\$ 14,261,956	\$ 157,390	\$ 16,612,109	\$ 2,147,763	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		Φ 0.000.501	\$ 13,919,528	\$ 214,027,994	
2031	\$ 45,000	\$ 2,152,357	\$ 13,117,353	\$ 177,063	\$ 15,491,774		\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 12,799,193	\$ 226,827,186	
2032	\$ 45,000	\$ 2,156,951	\$ 11,929,716	\$ 196,737	\$ 14,328,405	\$ 2,156,951	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 11,635,823	\$ 238,463,010	
2033	\$ 45,000	\$ 2,161,545	\$ 11,762,728	\$ 216,411	\$ 14,185,684	\$ 2,161,545	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000	\$ -	\$ 2,692,581	\$ 11,493,103	\$ 249,956,113	
2034	\$ 45,000	\$ 2,166,139	\$ 11,466,138	\$ 236,084	\$ 13,913,361	\$ 2,166,139	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 11,220,780	\$ 261,176,893	
2035	\$ 45,000	\$ 2,170,733	\$ 11,278,769		\$ 13,750,261	\$ 2,170,733	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 11,057,679	\$ 272,234,573	
2036	\$ 45,000	\$ 2,175,327	\$ 10,309,564	\$ 275,432	\$ 12,805,322	\$ 2,175,327	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 10,112,741	\$ 282,347,314	
2037	\$ 45,000	\$ 2,179,921	\$ 10,159,148		\$ 12,679,175		\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 9,986,594	\$ 292,333,907	
2038 2039	\$ 45,000 \$ 45,000	\$ 2,184,515 \$ 2,189,109	\$ 10,159,112 \$ 10,153,609	\$ 314,779 \$ 334,453	\$ 12,703,406 \$ 12,722,171		\$ 1,957,300 \$ 1,957,300			- ¢	\$ 385,281 \$ 385,281	\$ 350,000 \$ 350,000		\$ 2,692,581 \$ 2,692,581	\$ 10,010,825 \$ 10,029,590	\$ 302,344,732 \$ 312,374,322	
2039	\$ 45,000	\$ 2,109,109	\$ 10,133,009	\$ 354,127	\$ 12,621,155	\$ 2,189,109 \$ 2,193,703	\$ 1,957,300			Ф - \$	\$ 385,281	\$ 350,000		Φ 0.000.501	\$ 9,928,574	\$ 312,374,322	
2041	\$ 45,000	\$ 2,198,297	\$ 10,031,968	\$ 373,800	\$ 12,649,066	\$ 2,198,297	\$ 1,957,300			\$ -	\$ 385,281	\$ 350,000		\$ 2,692,581	\$ 9,956,485	\$ 332,259,381	
2042	\$ 45,000	\$ 2,202,891	\$ 10,029,906	\$ 393,474	\$ 12,671,272		\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,328,690	\$ 342,588,071	
2043	\$ 45,000	\$ 2,207,485	\$ 10,028,707	\$ 413,148	\$ 12,694,339	\$ 2,207,485	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,351,758	\$ 352,939,830	
2044	\$ 45,000					\$ 2,212,079				\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,358,421	\$ 363,298,251	
2045	\$ 45,000	\$ 2,216,673	\$ 10,010,323	\$ 452,495	\$ 12,724,491	\$ 2,216,673	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,381,910	\$ 373,680,160	
2046	\$ 45,000	\$ 2,221,267	\$ 9,989,652	\$ 472,169	\$ 12,728,088	\$ 2,221,267	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,385,506	\$ 384,065,667	
2047	\$ 45,000	\$ 2,225,861	\$ 9,988,112		\$ 12,750,816		\$ 1,957,300			\$ -	\$ 385,281		\$ -	\$ 2,342,581	\$ 10,408,235	\$ 394,473,902	
2048	\$ 45,000	\$ 2,230,455	\$ 9,988,112		\$ 12,775,084		\$ 1,957,300			\$ -	\$ 385,281		\$ -	-,- :-,	\$ 10,432,502	\$ 404,906,404	
2049	\$ 45,000	\$ 2,235,049	\$ 9,855,862				\$ 1,957,300			\$ -	\$ 385,281		-	Ţ _,c :_,c c	\$ 10,324,520	\$ 415,230,924	
2050	\$ 45,000 \$ 45,000	\$ 2,239,643 \$ 2,244,237	\$ 9,855,862		\$ 12,691,369		\$ 1,957,300			\$ -	\$ 385,281			Ţ _,c :_,c c _	\$ 10,348,788	\$ 425,579,712	
2051 2052	\$ 45,000	\$ 2,244,237	\$ 9,819,516 \$ 9,819,516		\$ 12,679,290 \$ 12,703,558		\$ 1,957,300 \$ 1,957,300			Ф -	\$ 385,281 \$ 385,281			Φ 0.240.501	\$ 10,336,709 \$ 10,360,977	\$ 435,916,422 \$ 446,277,399	
2052	\$ 45,000	\$ 2,253,425	\$ 9,819,516							\$ -	\$ 385,281		-	Φ 0040 504	\$ 10,385,245		
2054	\$ 45,000	\$ 2,258,019	\$ 9,813,846							\$ -	\$ 385,281		\$ -	Φ 0.240.501	\$ 10,403,842	\$ 467,066,485	
2055	\$ 45,000	\$ 2,262,613	\$ 9,813,846		\$ 12,770,691	\$ 2,262,613				\$ -	\$ 385,281		\$ -	Φ 0040 504	\$ 10,428,110	\$ 477,494,595	
2056	\$ 45,000	\$ 2,267,207	\$ 9,813,747		\$ 12,794,860		\$ 1,957,300			\$ -	\$ 385,281		\$ -	\$ 2,342,581	\$ 10,452,278	\$ 487,946,873	
2057	\$ 45,000		\$ 9,813,747							\$ -	\$ 385,281		\$ -	Φ 0.242.501	\$ 10,476,546	\$ 498,423,420	
2058	\$ 45,000	\$ 2,276,395	\$ 9,788,343		\$ 12,817,991	\$ 2,276,395	\$ 1,957,300			\$ -	\$ 385,281		\$ -	\$ 2,342,581	\$ 10,475,410	\$ 508,898,830	
2059	\$ 45,000	\$ 2,280,989	\$ 9,788,343	\$ 727,927	\$ 12,842,259	\$ 2,280,989	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,499,678	\$ 519,398,508	
2060	\$ 45,000	\$ 2,285,583	\$ 9,782,095							\$ -	\$ 385,281		\$ -	Ţ _,c :_,c c	\$ 10,517,697	\$ 529,916,205	
2061	\$ 45,000	\$ 2,290,177	\$ 9,782,095		\$ 12,884,546	\$ 2,290,177	\$ 1,957,300			\$ -	\$ 385,281	\$ -	\$ -	\$ 2,342,581	\$ 10,541,965	\$ 540,458,170	
	\$ 1,800,000	\$ 88,019,171	\$ 549,977,953	\$ 15,345,487	\$ 655,142,612									\$ 111,840,677	\$ 543,301,935		

Total Tax Funding	\$ 76,334,700
2022 Total Tax Levy	\$ 9,723,191
Inc. as % of Tax Levy	2.78%

# APPENDIX A DETAILED REVIEW OF 2019 AMP



Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	
5. Asset ma	nagement plans, current level of service			Action Items or Notes	Timeline to Complete
(1)	Every municipality shall prepare an asset management plan in respect of its core municipal infrastructure assets by July 1, 2022, and in respect of all of its other municipal infrastructure assets by July 1, 2024.	This requirement establishes timelines for core and non-core municipal assets to be included in the asset management plan in relation to current levels of service.		•All assets are included in the 2019 AMP. •Non-core assets: vehicles and machinery, equipment and furnishings, land improvements, buildings, sidewalks and pathways •Core assets: roads, bridges and culverts, storm	Complete
(2)	A municipality's asset management plan must include the for each asset category, the current levels of service being provided, determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan:	This section outlines reporting requirements for existing levels of service. Historical data should be at least 2 years old.	Section 3 Levels of Service	•Levels of service were developed as part of the 2019 AMP. Upon review of the level of service measures included, it has been determined that the continue to represent the current level of service in 2022 based on a high-level review of existing data. Note that the level of service tracker (Table 6) of the 2019 AMP has been restated to include some level of service measures that were not included.	Complete
i.	With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5, as the case may be.	Include the community and technical levels of service from Table 4 in this appendix in the AMP for core assets.	Section 3 Levels of Service	•The required level of service measures associated to the core assets as per O.Reg. 588/17 for roads, bridges/culverts and storm were developed as part of the 2019 AMP.	Complete
II.	With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.	Include the qualitative and quantitative descriptors outlined by the municipality for assets such as facilities, vehicles, equipment, land improvements, etc. These will have to be defined by the municipality.	Section 3 Levels of Service	•Level of service measures for non-core assets were developed as part of the 2019 AMP.	Complete
2.	The current performance of each asset category, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency, and based on data from at most two calendar years prior to the year in which all information required under this section is included in the asset management plan.	Include the performance of each asset category which is measured using data less than 2 years old as outlined by the municipality.  Performance measures will vary by asset category.	Section 3 Levels of Service	•The 2019 AMP includes a blend of performance measures and level of service measures. The Township is currently undertaking several initiatives to improve its available asset data. This will facilitate development of additional performance measures in future years.	Complete

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan		
5. Asset ma	nagement plans, current level of service			Action Items or Notes	Timeline to Complete	
3.	For each asset category,					
i.	a summary of the assets in the category,	A summary describing the assets in each category. For assets that are broken down into components, a summary can be developed by component.		•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the assets in each asset category in a table.	Complete	
ii.	the replacement cost of the assets in the category,	Include total replacement cost of all assets in each category.	State of Local	•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the replacement value of assets by type/components wherever possible.	Complete	
iii.	the average age of the assets in the category, determined by assessing the average age of the components of the assets,	Include the weighted average age of all assets in each category weighted relative to their replacement cost.	Infrastructure	•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the remaining useful life of the assets. Although the remaining useful life of the assets does not explicitly state the age of the assets, it is a direct function of the age. The remaining useful life is reported as this value is a key measure of condition utilized wherever engineered or staff condition assessments are not available.	Complete	
iv.	the information available on the condition of the assets in the category, and	Where available, include the weighted condition rating of assets in each category weighted relative to their replacement cost.		•State of the local infrastructure report cards were developed as part of the 2019 AMP. The report cards summarize the condition of assets based on a 5-tier scale from Very Poor to Very Good.	Complete	
v.	a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.	Include the engineering methods used to assess condition rating of all assets in each category. This can include staff visual inspections, remote sensors, etc.	Infrastructure	•State of the local infrastructure report cards were developed as part of the 2019 AMP. Appendix B of the 2019 AMP outlines the methodology used to determine conditions of assets.	Complete	

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	
5. Asset ma	nagement plans, current level of service			Action Items or Notes	Timeline to Complete
4.	For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service as described in paragraph 1 for each of the 10 years following the year for which the current levels of service under paragraph 1 are determined and the costs of providing those activities based on an assessment of the following:	Include all maintenance activities required to maintain current service levels for at least a 10 year period. For example, for buildings this can include frequency of inspections, maintenance schedules, maintenance procedures, etc.	Section 4 Asset Management Strategy	•Appendix D of the 2019 AMP documents lifecycle activities needed to maintain current levels of service at a high level. It is noted that the Township expects to improve documentation of its asset management strategies on an ongoing basis. The 2019 AMP also discusses the lifecycle activities: non-infrastructure solutions, maintenance activities, renewal/rehabilitation, replacement, disposal and expansion.	Complete
I.	The full lifecycle of the assets.	The activities listed should be relevant to the useful life of the asset.	Section 5 Financing Strategy	•The 2019 Plan focuses on the to lifecycle costs associated to maintenance and replacement activities. This 2022 review includes an updated methodology that captures costs for all lifecycle activities.	Complete
ii.	The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.	Discuss alternative options that can be undertaken to maintain current service levels and what options work best.	Section 5 Financing Strategy	*Appendix D of the 2019 AMP documents lifecycle activities needed to maintain current levels of service at a high level. It is noted that the Township expects to improve documentation of its asset management strategies on an ongoing basis. The 2019 AMP also discusses the lifecycle activities: non-infrastructure solutions, maintenance activities, renewal/rehabilitation, replacement, disposal and expansion.	Complete
iii.	The risks associated with the options referred to in subparagraph ii.	Discuss the risks involved with the options in sub-section 4.ii.Risks include discussion of consequences of not undertaking such maintenance activities.	Section 4 Asset Management Strategy	•Section 4 of the 2019 AMP discusses risks associated to not implementing the key outcomes of the plan. It is expected that the Township will continue to update the information to provide additional details over time.	Complete
iv	The lifecycle activities referred to in subparagraph ii that can be undertaken for the lowest cost to maintain the current levels of service.	Discuss the lowest cost options that can be undertaken to maintain current service levels.	Section 5 Financing Strategy	•The costs identified in the 2019 Plan associated to the 40-year planning period are based on the Township's budget and associated lifecycle activities identified through Appendix D. The Township considers this to be the lowest cost options based on the best available information available today and the current level of service provided. This 2022 review provides additional details on the financing strategy to supplement the 2019 Plan.	Complete

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	
5. Asset ma	5. Asset management plans, current level of service			Action Items or Notes	Timeline to Complete
5.	For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, the following:				
i.	A description of assumptions regarding future changes in population or economic activity.	This can include: population forecasts, development forecasts or economic reports.		•The 2019 Plan includes a Future Demand section which discusses the Township's expected future development and costs associated to growth-identified through the DC study which are considered expansion activities. The costs associated to expansion have also been included in updated financing strategy discussion in this review.	Complete
ii.	How the assumptions referred to in subparagraph i relate to the information required by paragraph 4.	Discussion on the relationship of growth on maintenance activities. For example as population grows, further maintenance activities are required for roads as more roads experience larger traffic volumes.		•The 2019 Plan includes a Future Demand section which discusses the Township's expected future development and costs associated to growth-identified through the DC study which are considered expansion activities. The costs associated to expansion have also been included in updated financing strategy discussion in this review.	Complete
(3)	Every asset management plan must indicate how all background information and reports upon which the information required by paragraph 3 of subsection (2) is based will be made available to the public.	Include the sources of the information and ensure that the information is available to the public.	Section 6 Making Asset Management Operational	•The 2019 Plan indicates that the report and strategic asset management policy should be made available to the public. Both are available on the Township website.	Complete

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset m	anagement plans, proposed level of service			Action Items	Timeline to Complete
(1)	Subject to subsection (2), by July 1, 2025, every asset management plan prepared under section 5 must include the following additional information:	The regulations has additional requirements which must be included in the asset management plan by 2025.		•It is expected that the 2019 Plan will be updated to include the additional information required by 2025.	To be completed by 2025
i.	For each asset category, the levels of service that the municipality proposes to provide for each of the 10 years following the year in which all information required under section 5 and this section is included in the asset management plan, determined in accordance with the following qualitative descriptions and technical metrics:  With respect to core municipal infrastructure assets, the qualitative descriptions set out in Column 2 and the technical metrics set out in Column 3 of Table 1, 2, 3, 4 or 5,	This section refers to the proposed or planned level of service for a minimum of 10 years.  Include the community and technical levels of service from Table 4 in this appendix in the	Section 3 Levels of Service	<ul> <li>Proposed levels of service should be defined with consideration of the current levels of service determined through the 2019 AMP. It is noted the proposed levels of service are those expected to be achieved over a minimum 10-year period.</li> <li>Consultation with Council and the public should occur before establishing targets.</li> <li>Proposed levels of service should be defined with consideration of the current core levels of service determined through the 2019 AMP.</li> </ul>	Q4 2024
	as the case may be.	AMP for roads, water, wastewater and stormwater infrastructure.	Levels of Service		Q4 2024
II.	With respect to all other municipal infrastructure assets, the qualitative descriptions and technical metrics established by the municipality.	Include the qualitative and quantitative descriptors outlined by the municipality for assets such as facilities, vehicles, equipment, land improvements, etc. These will have to be defined by the municipality.	Section 3 Levels of Service	Proposed levels of service should be defined with consideration of the current non-core levels of service determined through the 2019 AMP.	Q4 2024

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset ma	nagement plans, proposed level of service			Action Items	Timeline to Complete
2.	An explanation of why the proposed levels of service under paragraph 1 are appropriate for the municipality, based on an assessment of the following:	An explanation on how levels of service targets have been determined will need to be outlined.	Section 3 Levels of Service	Describe why the proposed levels of service are appropriate, this should include the process that was used to establish the proposed levels of service and how Council and the public was consulted.	Q4 2024
i.	The options for the proposed levels of service and the risks associated with those options to the long term sustainability of the municipality.	Options to achieve the proposed levels of service and all risks associated to not meeting the targets.	Section 3 Levels of Service	• Ensure that the proposed levels of service are based on measurable targets that the Town can track over time and maintain up to date. Include a discussion on the risks associated with not meeting proposed levels of service and if possible the consequence (ie. costs).	Q4 2024
ii.	How the proposed levels of service differ from the current levels of service set out under paragraph 1 of subsection 5 (2).	Include a description of how proposed service levels differ from current service levels. Include quantitative and qualitative differences. Identify which service measures are new.	Section 3 Levels of Service	Compare the proposed levels of service to the current levels of service. They can be added as an additional "column" in the level of service tracker of the 2019 AMP once it is updated.	Q4 2024
iii.	Whether the proposed levels of service are achievable.	Discuss whether proposed service levels are attainable. Only feasible and realistic level of service targets should be included in any plan.	Section 3 Levels of Service	Ensure that the proposed levels of service are achievable, feasible and realistic. Include a discussion in the AMP on why the proposed levels of service are achievable.	Q4 2024
iv.	The municipality's ability to afford the proposed levels of service.	Discuss whether proposed service levels are affordable. This will require a cost of analysis of work required to achieve the proposed targets.	Section 5 Financing Strategy	•Costs associated to meeting the proposed levels of service will need to be included as part of the financing strategy. The financing strategy in the 2019 AMP can be utilized as a basis for the analysis. The tax impact of undertaking these costs can be assessed.	Q2 2025

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset ma	. Asset management plans, proposed level of service			Action Items	Timeline to Complete
3.	The proposed performance of each asset category for each year of the 10-year period referred to in paragraph 1, determined in accordance with the performance measures established by the municipality, such as those that would measure energy usage and operating efficiency.	Include the planned performance levels established by the municipality. Performance measures will vary by asset category.	Section 3 Levels of Service	The Township is currently undertaking several initiatives to improve its available asset data. This will faciliate development of additional performance measures in future years and defining proposed levels of service.	Q4 2024
4.	A lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period referred to in	Lifecycle cost analysis for each asset category. Should be for at least a 10 year period.		•The work required for this would are related to the Asset Management Strategy and Financing Strategy sections of the AMP which are expected to be updated by July 2025.	Q2 2025
i.	An identification of the lifecycle activities that would need to be undertaken to provide the proposed levels of service described in paragraph 1, based on an assessment of the following:	Identify the lifecycle activities that need to be performed to provide proposed service levels based on:		•Section 4 of the AMP and Appendix D which outline the lifecycle activities associated to maintainin current levels of service would need to be updated to reflect the lifecycle activities needs to meet proposed levels of service (if any change is warranted).	Q2 2025
A	. The full lifecycle of the assets.	The activities listed should be relevant to the useful life of the asset.		•Consistent with the full lifecycle of assets consideration needs to be made for all lifecycle activities: non-infrastructure solutions, maintenance, renewal/rehabiltation, replacement, disposal and expansion.	Q2 2025
В	. The options for which lifecycle activities could potentially be undertaken to achieve the proposed levels of service.	Discuss alternative options that can be undertaken to achieve proposed service levels and what options work best.	Section 4 Asset Management Strategy	•Section 4 of the AMP and Appendix D which outline the lifecycle activities associated to maintainin current levels of service would need to be updated to reflect the lifecycle activities needs to meet proposed levels of service (if any change is warranted).	Q2 2025
C	The risks associated with the options referred to in subsubparagraph B.	Discuss the risks involved with the options to achieve proposed service levels. Risks include discussion of consequences of not undertaking such maintenance activities.		•A discussion on the risks associated to not meeting the objectives of the AMP. Section 4 of the 2019 AMP discusses risks associated to not implementing the key outcomes of the plan. It is expected that the Township will continue to update the information to provide additional details over time.	Q2 2025
D	The lifecycle activities referred to in sub-subparagraph B that can be undertaken for the lowest cost to achieve the proposed levels of service.	Discuss the lowest cost options that can be undertaken to achieve proposed service levels.		•The costs identified in the 2019 Plan associated to the 40-year planning period are based on the Township's budget and associated lifecycle activities identified through Appendix D. The Township would need to discuss why the activities are considered to be the lowest	Q2 2025

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset ma	nagement plans, proposed level of service			Action Items	Timeline to Complete
ii.	An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities identified in subparagraph i, separated into capital expenditures and significant operating costs.	Forecast of capital and operating costs associated to achieving the proposed levels of service. Forecast should be for at least a 10 year period.		•The financing strategy will need to be updated to reflect the full lifecycle costs associated to meeting the proposed levels of service for each lifecycle activity: non-infrastructure solutions, maintenance, renewal/rehabiltation, replacement, disposal and expansion.	Q2 2025
iii.	An identification of the annual funding projected to be available to undertake lifecycle activities and an explanation of the options examined by the municipality to maximize the funding projected to be available.	Identify funding options and forecast funding for a minimum of 10 years. Funding is associated to the lifecycle cost forecast above.		•The financing strategy will need to be updated to reflect the expected funding available to meet the proposed level of service.	Q2 2025
iv.	If, based on the funding projected to be available, the municipality identifies a funding shortfall for the lifecycle activities identified in subparagraph i,	Conditions if a funding shortfall is identified.	Section 5 Financing Strategy		
A	an identification of the lifecycle activities, whether set out in subparagraph i or otherwise, that the municipality will undertake, and	Identify lifecycle activities that the municipality will undertake.		•The financing strategy will need to be updated to reflect the full lifecycle costs associated to meeting the proposed levels of service for each lifecycle activity: non-infrastructure solutions, maintenance, renewal/rehabiltation, replacement, disposal and expansion.	Q2 2025
В	if applicable, an explanation of how the municipality will manage the risks associated with not undertaking any of the lifecycle activities identified in subparagraph i.	Discussion on risk management activities associated to the funding shortfall.		•A discussion on the risks associated to not meeting the objectives of the AMP. Section 4 of the 2019 AMP discusses risks associated to not implementing the key outcomes of the plan. It is expected that the Township will continue to update the information to provide additional details over time.	Q2 2025
5.	For municipalities with a population of less than 25,000, as reported by Statistics Canada in the most recent official census, a discussion of how the assumptions regarding future changes in population and economic activity, set out in subparagraph 5 i of subsection 5 (2), informed the preparation of the lifecycle management and financial strategy referred to in paragraph 4 of this subsection.	For municipalities with a population less than 25,000, explain how population and economic forecasts assumptions tie into the lifecycle management and financial strategy for the municipal asset management plan.	Section 5 Financing Strategy	•The 2019 Plan includes a Future Demand section which discusses the Township's expected future development and costs associated to growth-identified through the DC study which are considered expansion activities. This section should be updated in the future.	Q2 2025

Section	Regulation	Summary of Regulation	Relevant Section of Future AMP	Action Plan	
6. Asset ma 7.	nagement plans, proposed level of service  An explanation of any other key assumptions underlying the plan that have not previously been explained.	All assumptions in the AMP should be clearly laid out.	Where Applicable	Action Items  •Expand the documentation of assumptions in the AMP that are used to develop future updates (if applicable)	Timeline to Complete  Q2 2025
(2)	With respect to an asset management plan prepared under section 5 on or before July 1, 2022, if the additional information required under this section is not included before July 1, 2024, the municipality shall, before including the additional information, update the current levels of service set out under paragraph 1 of subsection 5 (2) and the current performance measures set out under paragraph 2 of subsection 5 (2) based on data from the two most recent calendar years.	If proposed level of service analysis is not included in the AMP by July 1, 2025 then the municipality will need to update the current level of service analysis with the most recent 2 years of data.	Section 3 Levels of Service	•The current level of service is recommended to be updated with every update of the AMP. This said, it should be tracked on an ongoing basis to identify if there are any differences between the current level of service relative to the proposed level of service.	Q2 2025

### Appendix A - Table 3 Township of Perth East

#### Asset Management Regulation (O.Reg. 588/17) and Action Plan Summary

Section	Regulation	Summary of Regulation	Relevant Section of AMP	Action Plan	
7. Update	e of asset management plans			Action Items	Timeline to Complete
(1)	Every municipality shall review and update its asset management plan at least five years after the year in which the plan is completed under section 6 and at least every five years thereafter.  The updated asset management plan must comply with the requirements set out under paragraphs 1, 2 and 3 and subparagraphs 5 i and 6 i, ii, iii, iv and v of subsection 5 (2), subsection 5 (3) and paragraphs 1 to 7 of subsection 6 (1).	The AMP should be updated every 5 years after July 1st 2024.  Any updates to the AMP should comply with the requirements of O.Reg 588/17 as well.	Section 6 Making Asset Management Operational	The Township expects to update the AMP at minimum every 5-years or as needed. Although it is noted that the information utilized through the AMP should be reviewed more frequently.  All future updates of the asset management plan should be consistent with O. Reg. 588/17.	Every 5-years after 2025
8. Endors	sement and approval required				
(a) (b)	Every asset management plan prepared under section 5 or 6, or updated under section 7, must be, endorsed by the executive lead of the municipality; and approved by a resolution passed by the municipal council.	The AMP must be endorsed by the executive lead of the municipality. The AMP must be approved by Council.	Section 6 Making Asset Management Operational	•The 2019 Plan was endorsed by the CAO and approved by Council. Council has not yet supported a financing strategy.	Complete
9. Annual	review of asset management planning progress				
(1)	Every municipal council shall conduct an annual review of its asset management progress on or before July 1 in each year, starting the year after the municipality's asset management plan is completed under section 6.	Review the AMP annually before or on July 1st of each year starting after all requirements of O.Reg 588/17 have been met.		<ul> <li>Monitor asset management plan progress on an annual basis. This can be done through the AMP Report Cards.</li> <li>A discussion on barriers and gaps in progress on the AMP</li> </ul>	
(2)	The annual review must address, the municipality's progress in implementing its asset management plan;	The annual review should discuss the progress made in implementing the AMP.	Section 6 Making Asset		after 2025
(b)	any factors impeding the municipality's ability to implement its asset management plan; and	The annual review should discuss any factors that act as barriers, gaps or challenges in implementing the AMP.	Management Operational		
(c)	a strategy to address the factors described in clause (b).	The annual review should discuss a strategy to address any factors that act as barriers, gaps or challenges in implementing the AMP.			
10. Public	c Availability				
	Every municipality shall post its current strategic asset management policy and asset management plan on a website that is available to the public, and shall provide a copy of the policy and plan to any person who requests it.	Post the asset management policy and plan on the municipality's website so that the public can access it. Provide a copy of the asset management policy and plan to any person who requests it.	Section 6 Making Asset Management Operational	The 2019 Plan and policy are posted on the Township website.	Complete