Township of East Garafraxa 2016 Asset Management Plan

Township of East Garafraxa

R.J. Burnside & Associates Limited
15 Townline
Orangeville ON L9W 3R4 CANADA

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R.J. Burnside & Associates Limited

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Executive Summary

This report contains the Asset Management Plan for the Township of East Garafraxa (Township). The report has been organized as follows:

- Chapter 1: Introduction;
- Chapter 2: State of Local Infrastructure;
- Chapter 3: Expected Levels of Service;
- Chapter 4: Asset Management Strategy;
- Chapter 5: Financing Strategy; and
- Chapter 6: Recommendations.

The "state of local infrastructure" chapter provides an overview of the capital assets owned by the Township. This includes detailed information on asset inventory, including asset attributes, accounting valuations, replacement costs, useful life, age and asset condition where available. This information provides the foundation for other sections of the asset management plan.

Based on data provided by the Township and discussions with Township Staff, it is believed that the Township's assets have a weighted average condition (with the weighting based on asset replacement cost) of the following table. Please note that weighted average conditions do not fully reflect the many assets that need to have capital improvement investments, but provide an overall perspective of all the assets found in that asset grouping / network.

Asset Type	Asset Sub-Type	Condition (weighted average)	Risk (weighted average)
Roads	Road Surface	Average	Moderate
	Road Base	Average	Moderate
	Bridges & Culverts	Average	Moderate
	Cross Road Culverts	Average	Moderate
	Street Lights	Good	Low
	Signs	Average	Moderate
	Barriers	Good	Low
Facilities	Marsville Community Centre	Average	Moderate
	Public Works	Good	Moderate
	Salt Dome	Good	Moderate
	Gravel Pit Storage Shed	Average	Moderate
Vehicles		Good	Low
Storm Water	Storm Mains	Average	Moderate
	Catch Basins	Average	Moderate
	Storm Ponds	Good	Low
Equipment & Machinery		Good	Low
Land Improvements		Good	Low
Software & Hardware		Average	Moderate

"Expected levels of service" compares the current level of service provided by the Township, and the recommended levels of service that will help extend the life of the above mentioned asset types. East Garafraxa Township takes great care in the service levels they offer their constituents and public. This report has made a few additional Levels of Service (LOS) recommendations that can extend the life of Township's tangible capital assets and therefore reduce the total lifecycle costs of Township assets.

The "asset management strategy" provides a long term operating and capital forecast for asset related capital costs, indicating the requirements for maintaining, rehabilitating, replacing / disposing and expanding the Township's assets, while moving towards the specified expected levels of service identified above. The goal of the asset management strategy is to have the Township moving towards a more sustainable asset management position over the 20 year forecast period. We have also taken into consideration the potential risk of each asset by identifying the asset consequence of failure and probability of failure.

Asset risk was assessed based on the asset's age, condition, consequence of failure, and probability of failure. The following have been identified based on Township data as assets that need to be replaced or improved as soon as practicable:

Roads

- 10th Line – from East Garafraxa / Erin Townline to County Road 3. Application of reclamite to rejuvenating agent for asphalt roads (approximate cost $40,000; 2017).
- 17th Line – from East Garafraxa / Erin Townline to Greenwood Pit Entrance. Asphalt surface to finish off 17th Line paving project (approximate cost $80,000; 2018).
- Hilltop Crescent – Requires re-surfacing the paved road with some additional base support (approximate cost $80,000; 2018)

Bridges

- Bridge 7 – This bridge requires a major rehabilitation. As a heritage bridge it is vital that work is completed on this bridge as soon as practicable (approximate cost $433,000; 2018).
- Bridge 17 – Based on the bridge inspections this bridge is scheduled to be replaced (approximate cost $50,000; 2018).

Facilities

- Marsville Community Centre Heating system – The heating system is very old and has regular maintenance completed on it but it is understood that it is not going to last long with a high risk of failure rating (approximate cost $3,000; 2017).
- Public Works Septic System – This old system in the Spring at times has issues with saturation, and capacity form Spring melt. This could turn into a Health & Safety

issue and is identified as a high risk of failure asset. It is recommended that it be replaced (approximate cost $20,000; 2017).

Vehicles

- 1988 Champion Grader Unit 75 – Is well past its expected life and is recommended to be replaced. These types of vehicles are critical to ensuring that Township roads are in good repair and safe to drive (approximate cost $425,000; 2017).

Water System

- Marsville Well – There are two wells drilled at the pump house however only one is commissioned and in production. The second well needs to be commissioned and put in service to lower the probability of failure as well as provide for the current well to be replaced in the next 5 years (approximate cost $75,000; 2019).
- Marsville Water Main – This system is old and not operating at Fire Pressure. This is below a safe standard. It is expected that the water main needs to be replaced if there is going to be any growth potential in the area; (approximate cost $400,000, 2020).
- Marsville Hydrants – If the water main will be replaced so should the hydrants. As the water pressure is not to fire standard it is expected that the hydrants need to be replaced at the same time as the water mains (approximate cost $25,500; 2020).

The above clearly identifies a growing gap in infrastructure funding, which is found not only in the Township of East Garafraxa but throughout Ontario and across Canada. The Township has continued to make steps to close this funding gap. If the Township would be successful at obtaining an OCIF funding grant this would assist with the rehabilitation of one of the Township's beautiful heritage Bridge 7 this would really help. However, more needs to be done to ensure that the Township can offer appropriate levels of service to the public. We have recommended that further more detailed inspections (e.g., Road Needs Study, Storm Sewer Inspections) of some assets be undertaken to provide a more accurate asset condition, remaining life and potential risk of failure. We also recommend that the bi-annual bridge inspections provide additional information that can assist with better long term asset management analysis.

The "financing strategy" described in Chapter 5 of this report identifies a funding plan for the recommended asset management strategy, including a review of historical results and recommendations with respect to the required amounts and types of funding (revenue) annually over the forecast period. Also, any infrastructure funding gaps are identified and recommendations are made regarding potential approaches to reduce and mitigate these gaps over the 20 year forecast period.

Overall, this asset management plan is a tool to be used by the Township for capital and financial decision making. It can be tied to various existing reports (such as budget,

official plan and strategic planning reports) to ensure the asset management plan can be updated to reflect any changes in the Township of East Garafraxa's priorities.

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1.0 Introduction

1.1 Overview

R.J. Burnside & Associates Limited (Burnside) was retained by the Township of East Garafraxa (Township) to prepare an asset management plan. This plan is intended to be a tool for the Township to use during various decision making processes, including the annual budget process and Provincial / Federal capital grant application processes. This plan will serve as a road map for sustainable infrastructure planning going forward.

Assets included in this asset management plan are the following:

- Roadside Barriers;
- Bridges & Culverts;
- Cross Road Culverts;
- Equipment & Machinery (Office, Public Works, Other);
- Facilities (Marsville Community Centre, Public Works Garage, Salt Dome, and Gravel Pit Storage Shed);
- Land Improvements (Playing Surfaces, Parking Lots, Parks, Playground Equipment, Shelters);
- Roads (Bases and Surfaces – Asphalt, Gravel);
- Signs;
- Software & Hardware;
- Storm Water (Catch basins, Mains, Storm Ponds);
- Street Lights;
- Vehicles; and
- Water (Facilities, Mains, Hydrants, Wells).

It is recommended that this plan be updated on an annual basis to ensure that it is kept up to date. As water system assets have their own sustainable financing plan as per Provincial Guidelines, they are grouped and discussed separately. All other assets listed above are tax supported and are discussed more thoroughly in this report.

1.2 Plan Objectives

The Township's goals and objectives with respect to their capital assets relate to the level of service being provided to Township constituents. Services should be provided at expected levels, as defined within this asset management plan. Township infrastructure and other capital assets are anticipated to be maintained at condition levels that provide for a safe and functional environment for its residents and visitors. Therefore, the asset management plan and its implementation will be evaluated based on the Township's ability to meet these goals and objectives.

1.3 Plan Development

The development of the Township's asset management plan was based on the steps summarized below:

1. Develop a complete listing of capital assets to be included in the plan, including attributes such as useful life, age, accounting valuation and current replacement valuation. Update the replacement cost of assets to 2016 dollars, and where required, using applicable inflationary indices.

2. Assess current condition of the assets, based on a combination of the following:
   - Existing reports;
   - Burnside field and/or desktop assessments;
   - Staff assessments; and
   - Asset age analysis.

3. Assess the risk of asset failure for each asset, based on determining the probability of each asset failing, as well as, the consequence of the asset failing. This risk analysis is one of the components used to identify priority projects for inclusion in the asset management plan, as well as, asset risk levels that require mitigation.

4. Determine current levels of service, based on standard practices and discussions with Township staff. Further analysis of the practices and identification of additional maintenance measures that can be applied to the assets to extend their lifecycle and potentially provide a lower asset total lifecycle cost.

5. Prepare an asset management strategy (i.e., operating and capital forecast) based on the asset inventory, identified priorities, forecast scenarios and level of service analysis discussed above.

6. Determine a financial strategy to support the asset management strategy, thus determining how the operating and capital related expenditure forecast will be funded over the plan period.

7. Prepare a final report, summarizing the process, strategy and results of the asset management plan.

1.4 Maintaining the Asset Management Plan

The asset management plan should be updated as the capital needs and priorities of the Township changes. This can be accomplished in conjunction with the Township's budget process. The Township will have the tools available to perform updates to the plan when needed.

When updating the asset management plan, note that the state of local infrastructure, expected levels of service, asset management strategy and financing strategy are integrated and impact each other. Looking at these components in reverse order, one can see the financing strategy outlines how the asset management strategy will be funded. The asset management strategy illustrates the costs required to maintain expected levels of service at a sustainable level. The expected levels of service component summarizes and links each service area to specific assets contained in the state of local infrastructure section and thus determines how these assets will be used to provide expected service levels.

This report covers a forecast period of 20 years; however, it is suggested that more focus and attention be put on the first 5 years of the asset management plan, to ensure accurate capital planning in the short term.

1.5 Plan Integration

The municipal environment is continually changing and demanding when it comes to legislation and other responsibilities. Integrating the asset management plan with Township's budget process, as well as, Public Standards Accounting Board Handbook Section 3150 (tangible capital asset) requirements can make updates in all three areas more efficient.

With respect to integrating the Township's budget process with asset management planning, both require a projection of capital and operating costs over a future period. The budget outlines total operating and capital requirements for the Township, while the asset management plan focuses in on specific asset related requirements. With this link to the annual budget, the budget update process can also become an asset management plan update process.

Both asset management and PSAB 3150 require a complete and accurate asset inventory. The significant difference between the two lies in valuation approaches (PSAB 3150 requires historical cost valuation, while asset management requires future replacement cost valuation). Using a single asset inventory as the developed Township asset management spreadsheets contain both historic and current replacement valuation methods as an effective approach to maintaining the Township's asset data (digital spreadsheets of all Township assets are provided in Appendix A).

2.0 State of Local Infrastructure

2.1 Scope and Process

This section of the plan provides an opportunity to develop a greater understanding of the capital assets owned by the Township. The state of local infrastructure analysis includes:

- An asset inventory documenting asset types, sub-types including quantities, materials and other similar asset attributes (where available);
- Financial accounting valuation (where available);
- Replacement cost valuation;
- Asset age distribution analysis and asset age as a proportion of expected useful life;
- Asset condition information (mostly based on report and/or staff assessment as well as the age of the asset, except where field or desktop assessments were completed);
- Draft Data Verification and Asset Condition policies (see Appendix B); and
- Documentation of assumptions made in creating the asset inventory.

Burnside developed a detailed asset inventory listing for the Township which was used as a starting point in fulfilling the requirements for this report. This inventory provides current financial accounting valuations (i.e., historical cost, accumulated amortization and net book value), as well as, attributes such as replacement cost, useful life, and age). With respect to replacement cost, the Township provided various recent valuations, which were inflated in order to estimate current 2016 replacement costs. Other valuations were made using a current 2016 replacement cost and deflating the value to the year or estimated year that the asset was constructed and/or acquired.

The following data and reports were used to develop the Township's asset inventory during this project:

- Township PSAB 3150 asset inventory;
- Township reports;
- Township 2016 Bridge Inspection Report;
- Recent purchases information from the Township; and
- Discussions with Township staff.

Some adjustments to asset useful lives has been made but further analysis may reveal that the Township will want to update some useful life values so that they better reflect the lifecycle and remaining life of the Township's assets. Burnside engineers and the Township staff have reviewed the useful lives of the asset types identified in this project and believe they now reflect the conditions, maintenance practices and management of Township assets.

2.2 Capital Asset Overview

Township of East Garafaraxa presently owns capital assets with a 2016 replacement value of approximately $44.5 million. Tax supported assets compose approximately $43.5 million or $22.5 million excluding the road base assets for tax supported assets. Table 2-1, Figure 2-1 and Figure 2-2 outline the breakdown of these tax supported totals into the Township's asset categories. The Water assets owned by the Township have a

2016 replacement cost of approximately $1.0 million, as listed in Table 2-2 and Figure 2-3.

The capital asset inventory was organized in a Microsoft Excel spreadsheet and delivered to the Township in digital form in Appendix A. Each of the asset types were assessed for their age, condition (where available) and for data accuracy and completeness. The Township reviewed the asset inventory over the course of this project.

Table 2-1 and Figure 2-1 show the Township's financial accounting valuation summary by asset type for tax supported and water supported assets. Since 2009, municipalities have been required under the Public Sector Accounting Board Handbook Section 3150 (PSAB 3150) to maintain asset listings complete with historical cost (i.e., the original cost to purchase or construct an asset), accumulated amortization and net book value. These values were to be reported on the municipality's audited financial statements each year. Burnside has done the additional work of developing the Opening / Historic Cost for assets that have been added to the Township's asset inventory. If the Township chooses to use the asset inventory developed in this project to report the PSAB 3150 values the data / information is found in Appendix A.

Including all Township assets, the total tangible capital asset historical cost is approximately $18.3 million. This is approximately 41% of the total replacement cost of all the assets or 53% without road base replacement costs included. It is expected that historical cost totals are less than replacement cost totals, given inflationary adjustments that would occur between the original asset purchase/construction date and 2016. Total accumulated amortization for the Township's assets is $6.1 million or 33% of the total asset historical cost and $4.9 million accumulated amortization or 39% without road base amortization costs included. This represents the proportion of tangible capital assets that have been amortized (i.e. used up) to date from a financial valuation perspective.

Clearly Township owned road assets have the greatest percentage tax supported replacement cost if the road base values were included in the calculation (see Figure 2-2). Road bases are considered assets that will never be totally replaced, but will from time to time be improved and in specific locations reconstructed on an as needed basis. Therefore by excluding road base asset values, Township bridges percentage replacement costs are close to 50% of any other tax supported asset type. Other major tax supported asset types are Roads (made up of Road Surfaces, Barriers, Cross Road Culverts, Signs, and Street Lights) with 22%, Vehicles with 13%, and Facilities with 8%. More in depth discussion of these asset types follows below.

The Township water assets are critical to the Marsville community. Figure 2-3 provides the percentage replacement cost breakdown of these asset groups.

Table 2-1: Township Tax Supported Asset Summary

Asset Type	Asset Sub-Type	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	2016 Replacement Cost	Condition (weighted average)		Useful Life (years)	Age (weighted average)	Remaining Life (weighted average)	Risk (weighted average)	
						Value	Text				Value	Text
Roads	Road Surface	$2,623,871	$1,339,362	$1,500,862	$3,981,000	7.0	Good	20, 6, 3	10	12	2	Moderate
	Road Base	$5,821,784	$1,262,010	$3,806,542	$20,956,905	6.0	Average	60	106	14	2	Moderate
	Bridges & Culverts	$4,510,147	$1,040,930	$3,601,253	$11,092,521	6.8	Average	75, 50, 30	55	24	2	Moderate
	Cross Road Culverts	$279,905	$96,466	$183,440	$501,852	4.7	Average	40	28	18	2	Moderate
	Street Lights	$67,835	$27,902	$39,934	$82,078	7.8	Good	25	10	15	1	Low
	Signs	$125,855	$95,425	$30,431	$138,460	5.4	Average	15	13	2	2	Moderate
	Barriers	$214,183	$61,703	$152,481	$226,011	8.3	Good	50	10	40	1	Low
Facilities	Marsville Community Centre	$85,067	$57,673	$27,394	$518,000	5.1	Average	75, 40, 20	66	8	2	Moderate
	Public Works Garage	$203,340	$128,622	$74,717	$926,000	7.9	Good	100, 50, 40, 25, 20, 15	25	70	2	Moderate
	Salt Dome	$211,439	$92,234	$119,204	$295,000	8.0	Good	75, 25	18	33	2	Moderate
	Gravel Pit Storage Shed	$21,632	$20,334	$1,298	$140,000	5.0	Average	50	47	3	2	Moderate
Vehicles		$2,264,393	$1,136,155	$1,138,553	$2,945,000	7.7	Good	20, 14, 12	10	10	1	Low
Storm Water	Storm Mains	$32,466	$8,955	$23,511	$95,195	5.6	Average	75	33	42	2	Moderate
	Catch Basins	$41,415	$13,326	$28,089	$141,500	5.2	Average	75	35	40	2	Moderate
	Storm Ponds	$648,507	$115,936	$532,571	$684,307	8.3	Good	100	18	82	1	Low
Equipment & Machinery		$133,570	$66,627	$66,943	$194,102	7.7	Good	40, 25, 20, 15, 10, 5	13	10	1	Low
Land Improvements		$473,927	$180,817	$293,111	$515,750	8.2	Good	50, 40, 30, 25, 15	10	18	1	Low
Software & Hardware		$215,491	$203,806	$11,686	$53,451	5.7	Average	10, 5, 4, 3	8	1	2	Moderate
	Total	**$17,974,828**	**$5,948,282**	**$11,632,020**	**$43,487,132**	**7.0**	**Good**		**56**	**21**	**2**	**Moderate**
	Total without Road Base Repacement Costs				**$22,530,227**	**7**	**Good**		**41**	**25**	**2**	**Moderate**
									Calculated for Asphalt Roads Only			

Figure 2-1: Township Tax Supported Asset Distribution Replacement Costs (2016)

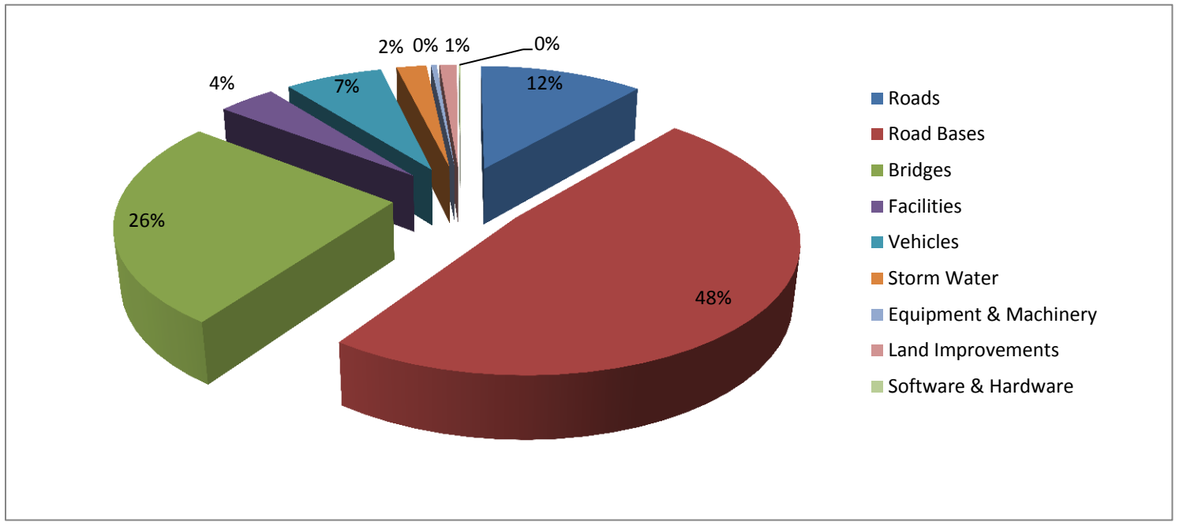


Figure 2-2: Township Tax Supported Asset Distribution Replacement Costs, Without Road Bases (2016)

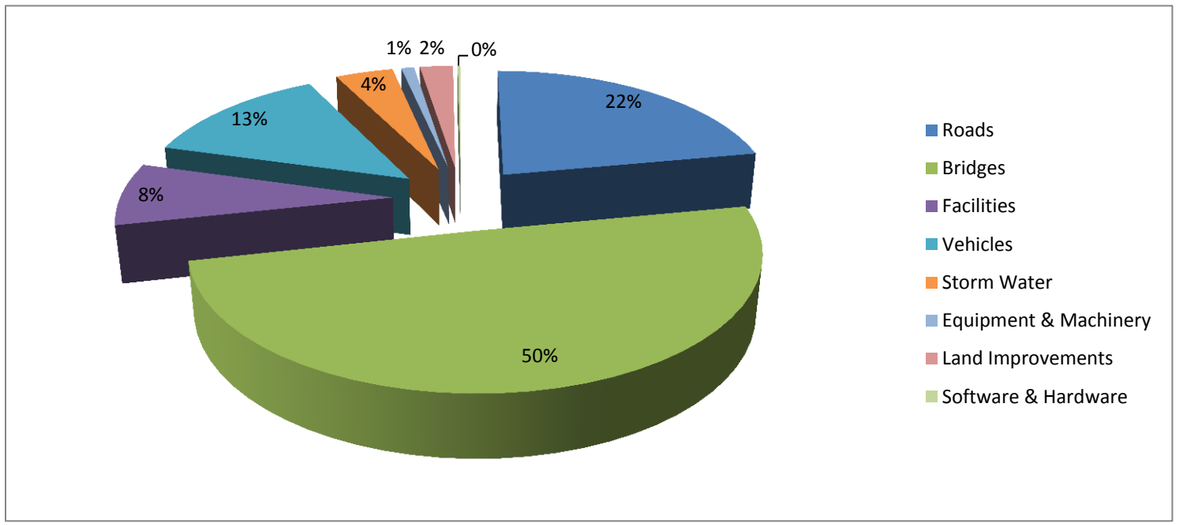


Figure 2-3: Township Water Supported Asset Distribution Replacement Costs (2016)

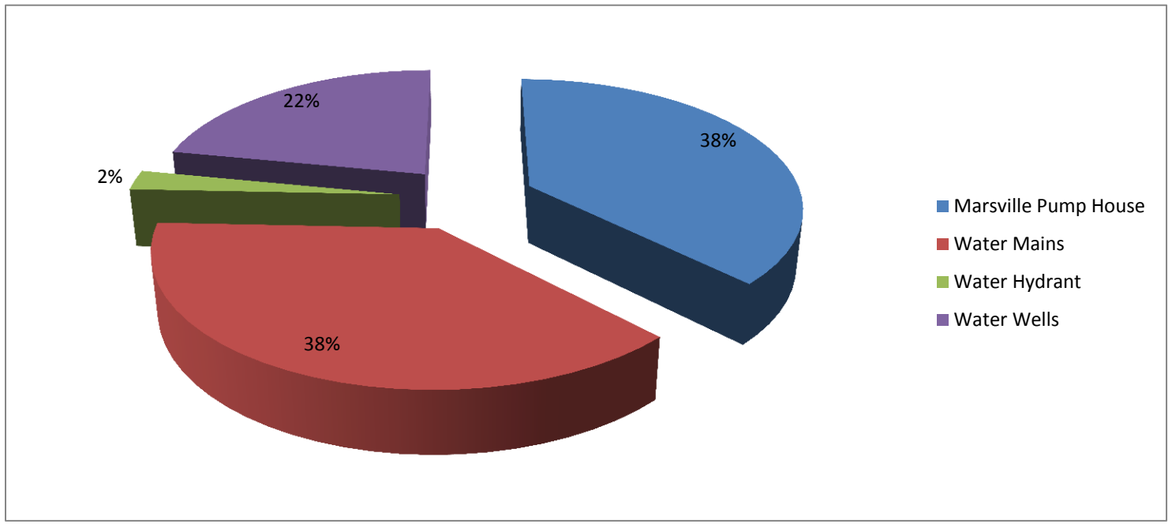


Table 2-2: Township Water Supported Asset Summary

Asset Type	Asset Sub-Type	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	2016 Replacement Cost	Condition (weighted average)		Useful Life (years)	Age (weighted average)	Remaining Life (weighted average)	Risk (weighted average)	
						Value	Text				Value	Text
Water Facilities & Components	Marsville Pump House	$136,070	$101,917	$34,153	$394,182	5.2	Average	75, 50, 25, 15	39	27	3	High
Water Mains		$113,720	$50,037	$63,683	$400,000	6.0	Average	100	44	56	3	High
Water Hydrant		$7,367	$6,483	$884	$25,500	5.0	Average	75	44	6	3	High
Water Wells		$93,142	$29,438	$63,703	$230,063	5.7	Average	25	14	19	2	Moderate
	Total	**$350,299**	**$187,875**	**$162,424**	**$1,049,745**	**6.0**	**Average**		**36**	**36**	**3**	**High**

The Storm Water assets account for close to $1 million; 4% of the Township replacement costs, not including road bases. These assets are reviewed and seem to be working well. One area of some concern is the Marsville storm main as it is getting older. To ensure that the storm main is functioning well and still has the opportunity to be lined for additional asset life, it is recommended that a closed circuit TV (CCTV) scan of the main be completed in a few years. The CCTV scan cost will be minimal due to the short length of the storm main.

The Equipment & Machinery assets are mostly composed of Public Works equipment and some equipment from the Marsville Community Centre. These assets are numerous and a standard requirement for general operations of these department areas of the municipality. These assets also are used and/or tested for safety on a regular basis by Township staff and therefore maintained or replaced on a regular schedule or when required.

Land Improvements assets are mostly made up of parking lots and playing surfaces, as sports fields and park equipment. Township staff regularly inspect these assets to ensure they are well maintained. It is recommended that the Township review the lifecycles of these assets to ensure that they are appropriate for the Township environment.

The Software & Hardware asset group is also regularly used by Township staff. Assets as computers are replaced when required to ensure staff effectiveness. Therefore this asset group is well maintained and controlled via appropriate timely replacements.

The Township actually owns one short length of sidewalk located in the Orton Village area. This has been identified as an asset that has been grown over and potentially more difficult to remove than to just leave. Staff inspect the area for any safety concerns.

The Township has many street signs throughout the community which include both regulatory and non-regulatory signs. With over $138,000 replacement value this asset type is critical to safe travel through the Township. Township signs are regularly reviewed by the Township staff and are replaced when necessary, and only require an annual budget of $10,000 to ensure proper signage is maintained.

Township street lights have been replaced with new LED lights which effectively reduce the Township's electrical energy consumption and light bulb replacements. The Township will have some minor bulb replacements as the main investment has already been made.

2.3 Road Environment Assets

The Township's road assets make up a key service that reflects the economic and social development of the community. The road environment assets are made up of the following asset types:

- Road Surface Asphalt – 21% of the total Township Road asset replacement costs;
- Road Surface Gravel – 4% of the Total Township Road asset replacement costs;
- Bridges – 69% of the total Township Road asset replacement costs;
- Cross Road Culverts – 3% of the total Township Road asset replacement costs;
- Street Lights – 1% of the total Township Road asset replacement costs;
- Signs – 1% of the total Township Road asset replacement costs; and
- Barriers – 1% of the total Township Road asset replacement costs.

Below we provide more detail on the two key asset groups in the Road Environment group of assets, Roads, and Bridges.

2.3.1 Roads

At the current replacement cost the road environment assets account for $16.0 million dollars or 72% of the Township's tax supported assets excluding road bases. The composition of the road surfaces are outlined in Table 2-3.

Table 2-3: Road Surface Composition

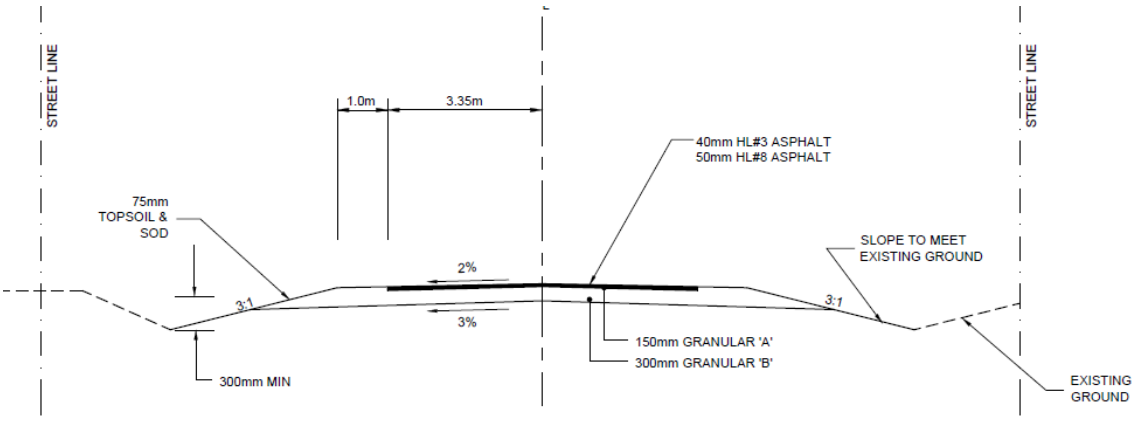
Road Surface	Length (m)	Condition (weighted average)	Condition (Text)	Replacement Cost
Asphalt	37,774	7.0	Good	$3,366,000
Gravel	107,907	5.3	Average	$615,000
Total	**145,681**		**Average**	**$3,981,000**

Burnside completed a desktop review of all Township roads to establish the road inventory. Many discussions with the Township Director of Public Works, helped to identify the road conditions, and identified needs for both asphalt and gravel surface roads.

It was identified that the Township is falling behind in trying to maintain good asphalt road surfaces, which can and eventually do affect the road bases. Figure 2-4 outlines cross section of a standard road. It is very important to maintain the road surfaces which are comparatively a minor replacement cost to the major cost to replace a road base. Due to other major projects, such as bridge replacements / rehabilitations, funding has not been as readily available to re-enforce some road bases and replace their asphalt surfaces. For a few asphalt roads it is recommended that the asphalt surface be ground

into the base along with some additional gravel. This will help to develop a more secure road base. Once the road base becomes soft it cannot economically support a hardtop road surface and it can be best to convert it to a gravel road until the base has been reinforced.

Figure 2-4: Typical Road Cross-Section



The gravel surface roads are on an approximate three year rotation, of surface gravel replacement / top-up. In some locations additional gravel is at times required to help reinforce the road base. This rotation is recommended to continue to ensure that these roads remain safe.

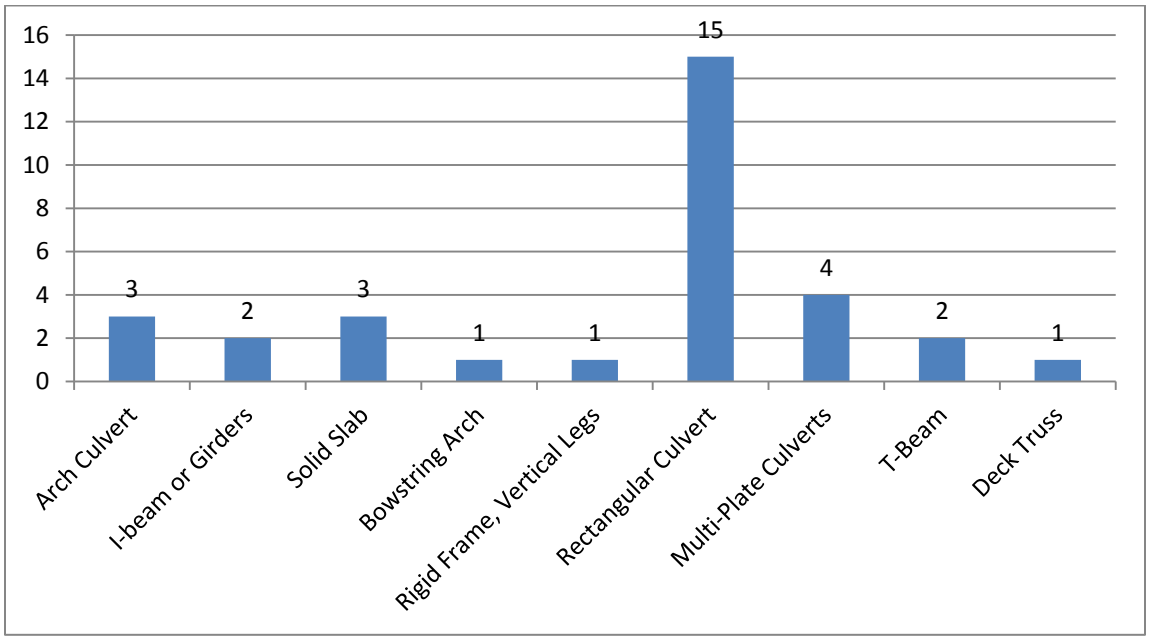
To gain a better understanding of the road conditions it is recommended that the Township complete a Road Needs study. This will provide a more detailed report of condition related deficiencies, and other deficiencies that may impact longevity or operations of Township roads, including road widths, drainage, surface type, alignment, and brushing maintenance where required.

2.3.2 Bridges & Culverts

The Township had their 32 bridges and culverts structures over the span of 3.0 m inspected in 2015. Three of these structures are Townline structures that are to be inspected by a neighbouring municipality. The inspection reports were reviewed and information incorporated into this asset management analysis. Visual inspections are required to be carried out every two years in accordance with the Ministry of Transportation – Ontario Structure Inspection Manual (OSIM). The inspections were to be completed under the direction of a Professional Engineer to assess their condition and identify any material defects, performance deficiencies, maintenance needs, additional studies and/or repairs / rehabilitation work required on a structure by structure basis.

The Township has a total of just over $11 million replacement cost of bridge and culvert assets. Figure 2-5 provides the distribution of the types of bridges that the Township owns.

Figure 2-5: Township of East Garafraxa Types of Bridge Structures



The inspection report made recommendations based on the data. Depending on the condition of each structure, the remedial needs were provided in three classifications; routine maintenance, additional investigations and repairs and rehabilitations (Capital Works).

The routine maintenance work often requires a minimal scope of work, and in most cases can be carried out by Township staff. The Township tries to complete as much of these recommendations as possible.

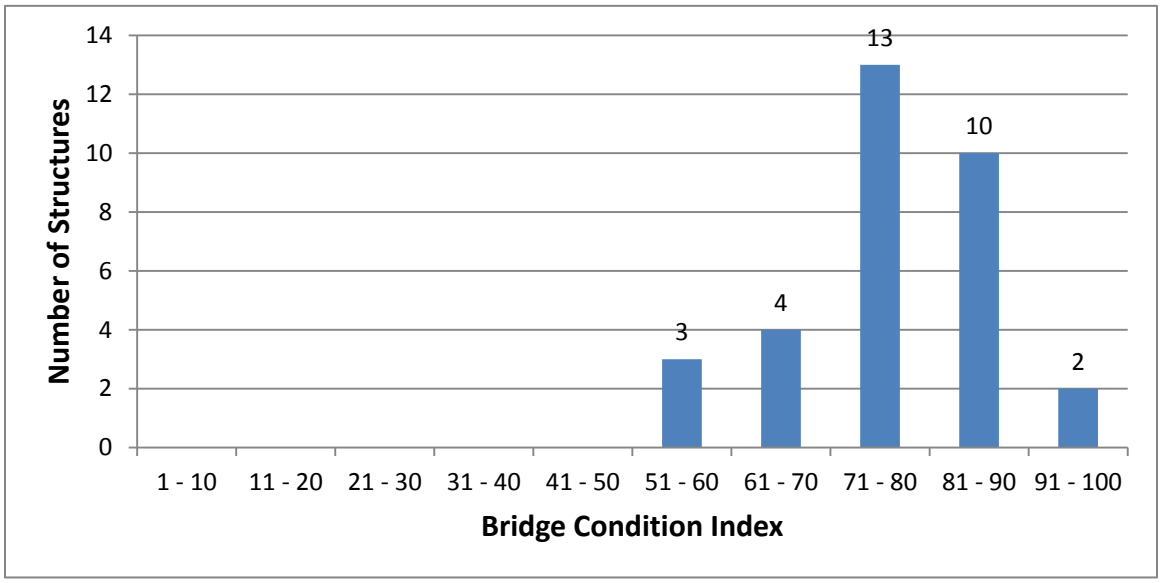
The capital works needs include any repair, rehabilitation or replacement work which would typically be completed by a Township hired Contractor, to assist in extending the service life of a structure and increasing the Bridge Condition Index (BCI). In accordance with the OSIM, the capital works required are based on a priority of six to ten years, one to five years, within one year, and urgent. We have incorporated this information along with further prioritization suggestions from the Public Works Director.

It should be noted that the Capital Works costs include recommended replacement or rehabilitation costs for structures in need.

Taking into consideration the structures calculated BCI's, several structures have been identified for rehabilitation. Within the next six years, three structures have been identified for rehabilitation capital works.

Based on the biennial inspection of each structure, the Bridge Condition Index (BCI) is calculated for each structure. The Bridge Condition Index Distribution graph, shown in Figure 2-6 below, provides a summary of the current state of the Township's structures.

Figure 2-6: Bridge Condition Index Distribution (2016)



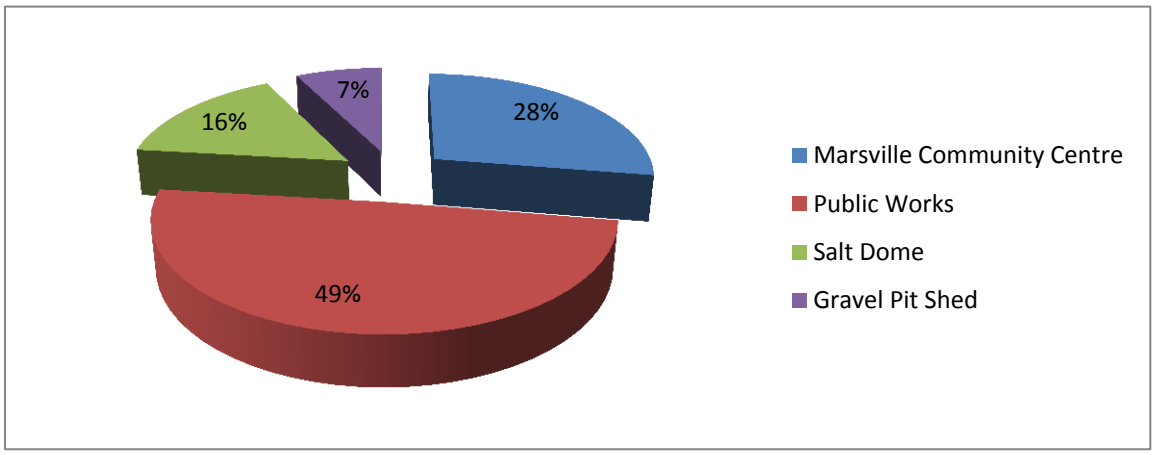
Currently, only approximately 78% of the Municipality's structures are within the "good" range (over 70 BCI), with 22% of the structures classified as "fair" (50 - 70 BCI) and 0% classified as "poor" (under 50 BCI), as illustrated in Figure 2-6. Of interest, the MTO has established a goal to have 85% of their structures in "good" condition (BCI ≥ 70) by the year 2021, and to maintain that condition moving forward by addressing rehabilitations and replacements as necessary. Burnside recognizes that the above goal was not established by the Township, but it is noted that, with the rehabilitation of Bridge 8, reconstruction of Bridge 18, and replacement of Bridge 3 over the last few years, the state of the inspected structures will be improving. There will be 7 more bridges that will need some improvements or replacement to achieve the Province MTO's established goal.

Continued maintenance and completion of rehabilitative or replacement works as recommended in the Bridge report will help to continue a trend of overall improvement of the Municipality's bridge assets.

2.4 Facilities

Facilities account for $1.9 million or 8% of the Township's assets replacement costs excluding the Road Bases. Figure 2-7 shows the distribution of this $1.9 million across the asset type owned by the Township. A total of 4 facilities were identified as requiring an opinion of remaining life and replacement cost.

Figure 2-7: Facilities Replacement Cost Distribution



2.4.1 Facilities Condition Rating

A rating system consisting of five categories, Very Good, Good, Fair, Poor, and Very Poor, was utilized in order to provide a general description of the condition of each facility or component thereof as compared with the average life expectancy of that facility or component. Condition ratings for individual components or groups of components within a facility was provided by the Township, or assumed based on age and average life expectancy where no rating was provided. Table 2-4 provides a weighted average condition to replacement cost perspective of the Township facilities.

Table 2-4: Facility Weighted Average Condition

Facility	Condition (weighted average)	Replacement Cost
Marsville Community Centre	5.1	$518,000
Public Works	7.9	$926,000
Salt Dome	8.0	$295,000
Gravel Pit Storage Shed	5.0	$140,000
	Total	**$1,879,000**

2.5 Vehicles

The Township, as most municipalities, maintain their vehicles very well. This is potentially due to staff's regular hands-on use of these assets. When vehicle assets are

used regularly the end users want to ensure that they are maintained to their manufacturer's specifications. Even though there are many vehicles that have exceeded their identified useful lives they are still safe to use. This does not mean that they will never have to be replaced.

It should not be surprising that all of the Township's vehicles have been identified for replacement over the 20 year period of this study. Some of these are currently only being used to cover more busy periods, and will eventually be replaced.

The Township owns $2.9 million in replacement cost vehicles. This is 13% of the Township's assets (without road bases included), however they are a key functional asset used to provide clear drivable roads, and safe recreational fields and facilities.

Over the next 20 years it is recommended that the Township invest approximately $194,500 annually to overcome the Township's vehicle needs.

2.6 Water Supported Assets

The Township water supported assets provide potable water to the Marsville community. These assets total over $1 million in 2016 replacement cost value which is 4% of all the Township assets excluding the Road Bases. Table 2-3 provides a summary of all of the water supported assets. A more detailed review of these assets can be found in Appendix A.

Each water supported asset component identified in Table 2-3 is critical to the acquiring, treating and distributing potable water to the community with sufficient quantity and pressure. As this is a water supported asset grouping we shall only comment on the condition and capacity of the system.

In general the Marsville water system is aging and in need of some greater attention, as three of the four asset groupings indicate a High weighted average risk score. These asset types are the actual pump house, which is expected to exceed the identified useful life of the building. The identified condition of the water assets are average. There are two main concerns:

1. The water production well and pump is aging and needs to be better assessed for potential remaining service life, and expected replacement in the next five years.

2. Water distribution capacity, will be challenged if additional development is added to the system. For new development to proceed there will need to be a second production well commissioned, as well as the current distribution main and hydrants replaced. A new system will have to be able to provide full fire pressure which currently is not available.

2.7 Asset Condition

Each asset was tracked based on estimated total useful life and remaining service life. Using this data, along with staff information, and age analysis of Township assets assisted in identifying potential areas of focus where inspected asset condition was not available. We do wish to state that asset condition is always best defined via engineering best practices. Engineering based condition assessments can provide more realistic estimates of an asset's remaining service life, which can then be used to establish rehabilitation and/or replacement schedules. Age related condition values can be problematic if the asset's useful life is not appropriately defined. For example, if a useful life of an asset is defined shorter than the assets true performance, this will result in a lower / poorer age assessed condition rating. This method of condition approximation was only used when inspected or staff commented conditions were not available.

A rating out of 10 was established for all assets and was based on a combination of past reported physical inspections, current inspections, staff assessment, and asset age analysis. This rating was then converted to a condition description of "Very Poor" to "Very Good" as shown in Table 2-5.

Table 2-5: Asset Condition Format for All Assets

Condition (Value 0-10)	Condition
9 – 10	Very Good
7 – 8	Good
5 – 6	Average
3 – 4	Poor
1 – 2	Very Poor

The condition of the assets is an important element of any lifecycle assessment process. The condition assessment process also identifies maintenance and operating practices that can be applied to ensure appropriate service, as well as extending the life of the asset to its maximum service life.

A draft policy has been proposed that will ensure all the Township's assets are reviewed using established engineering methods and practices. Appendix B contains the draft Data Verification and Condition Assessment Policy, which identifies how often the Township tax supported assets are recommended to be assessed.

A high level summary of the average conditions for the Township assets are shown in Table 2-1 and Table 2-2. The conditions listed in Table 2-1 and Table 2-2 are for weighted average conditions. The weighting was against the asset replacement costs so that the greater the cost the greater the weighting of that asset's condition is used to

determine the average. Using this method provides for more emphasis on the more expensive to replace assets. However please note that averages are a composition of many assets in a group. Averages can be misleading with respect to immediate needs as new assets offset the old assets requiring urgent replacement.

2.8 Data Accuracy and Completeness

An important element of this asset management plan is ensuring that tools and procedures are in place to maintain accuracy and completeness of the asset data and calculations moving forward. As time passes, assets are used, maintained, improved, disposed of and replaced.

All of these lifecycle events can trigger changes to the asset database used within the asset management plan. Therefore, tools and procedures are essential to ensure the asset data remains accurate and complete. Please refer to Appendix B of this report for the draft "Data Verification and Condition Assessment Policy" for the Township. This policy illustrates how the asset data can be updated and verified going forward. This includes the timing of condition assessments for each asset type and what should be included within the condition assessment procedures.

3.0 Expected Levels of Service

The Township of East Garafraxa has been offering and maintaining for its municipality good service levels, during challenging economic times. The Province has become more demanding of all municipalities requiring residents to invest more and more into replacing older infrastructure. Reviewing past records has shown that the Township has continued to investment annually into maintaining and replacing Township infrastructure. The last few years have seen improvements with greater investments in retaining proper service levels on Township assets. It is important to note that the long term objective of the Township needs to be infrastructure sustainability. In general the Township is performing maintenance activities when required, however with the potential of more new developments will require the Township to hire more staff and acquire more equipment to be able to maintain expected levels of service.

3.1 Scope and Process

A Levels of Service (LOS) analysis gives the Township an opportunity to document the levels of service that are currently being provided and compare it to the levels of service that will ensure the assets achieve their full lifecycle potential. This can be done through a review of current practices and procedures, an examination of trends or issues facing the Township and/or through an analysis of performance measures and targets that staff can use to measure performance.

Expected LOS can be impacted by a number of factors, including:

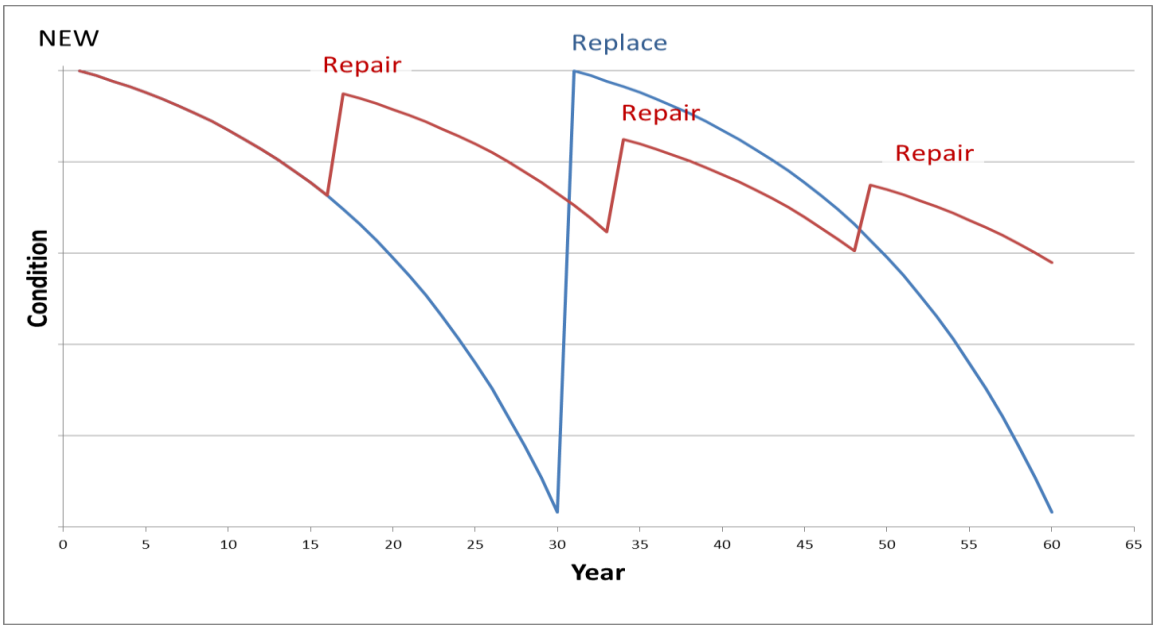
- Legislative requirements (e.g., minimum maintenance standards for roads, water guidelines, etc.);
- Strategic planning goals and objectives;
- Resident expectations;
- Visitor / Constituent expectations;
- Council expectations; and
- Financial or resource constraints.

The previous task of determining the state of the Township's local infrastructure establishes the asset inventory and condition, as well as asset management policies and principles to guide the refinement and upkeep of asset infrastructure. The LOS analysis will utilize this information and factor in the impact of asset service level targets. It is important to document an expected LOS that is realistic to the community. It is common to strive for the highest LOS; however, these service levels usually come at a cost. It is also helpful to consider the risk associated with a certain LOS. Therefore, expected LOS should be determined in a way that balances both level of investment and associated risk to the Township.

Burnside received verbal confirmation of maintenance practices that the Township undertakes. The only additional practices that we recommend are to complete more rigorous condition assessments on Township owned assets, as this will help better determine the remaining life of the municipality's assets. This then will provide the Township staff with time to find / develop appropriate funding to improve or replace these assets.

Figure 3-1 illustrates the recommended strategy of investing more often in smaller amounts provide higher levels of service and better asset condition with an overall lower total cost over the lifecycle of the asset.

Figure 3-1: Small and Timely Renewal Investments Save Money



3.2 Current Levels of Service versus Expected Levels of Service

The Township's current LOS has resulted in the current state of infrastructure as discussed in the previous section of the report. This current LOS also relates to the risk assessment discussed in later report sections. Regarding the cost of this LOS, the municipality has established an operating and capital budget for the current year that includes the cost of providing this LOS to residents. Therefore in moving from the current LOS to an expected LOS, consideration has to be made for the associated cost (or impact on the Township's current budget) in moving to an enhanced or expected LOS.

Table 3-1 outlines broad LOS descriptions (both current and enhanced LOS). This analysis was noted through discussions with the Township and engineering best practices. Based on the information provided there are a few enhanced maintenance related LOS identified. The Levels of Service cost impact analysis was factored into the financial strategy discussed in Chapter 5 of this report. To ensure that current activities are not missed we attempted to include these costs into the analysis.

3.3 Level of Service Performance Measures

As mentioned above, using performance measures in the LOS review can also be helpful in measuring the Township's goals and objectives when it comes to capital assets. The municipality currently tracks specific performance measures as part of their Minimum Maintenance Standards for Roads. The Township also follows the Provincial water guidelines which are tracked and documented. It is recommended that the

Township start tracking some other key performance measures as this will assist the municipality to better define and achieve their desired LOS and asset strategies. As the municipality's asset management plan evolves over time, performance measures can be introduced to further measure the LOS being provided in each service area. It is expected that the Province will be asking municipalities to incorporate more performance measures to ensure that appropriate service levels are being offered to the public.

Table 3-1: Township Expected Levels of Service

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost of Expected LOS	Cost Description
Roads & Related Assets	Safe Roads	Meet "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.	Meet "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.	Regulation Standard		Township may want to incorporate a system that will assist in proving compliance to the Provincial Regulation.
	Fix Public Identified Issues Quickly	Track complaints and resolve then as quickly as possible.	Track complaints by road segment.	Respond to Public Inquiry within 7 days		Township delivers the Level of Service well.
	Maintain Road System Network Condition for Safe Use	Road Maintenance is completed regularly and when required.	Maintain adequate road network condition index to ensure safe roads.	Assess Road Conditions every 10 years with Internal assessment annually	$20,000 + $15,000 + $8,000 + $3,500	Roads Needs Study every 10 years to include Network Condition analysis, and crack seal program and line painting.
	Asphalt Roads are Clean and Clear	Street sweeping and flushing are completed annually.	Roads are swept and flushed to ensure they are clear of debris and safe.		$6,500	Township delivers the Level of Service well.
	Gravel Roads are Well Maintained and Dust Inhibited	Gravel roads are smoothed when required, and Calcium Chloride applied to control dust.	Gravel roads are smoothed when required, and Calcium Chloride applied to control dust.		$110,000	Township delivers the Level of Service well.
	Safe and Well Maintained Roadsides	Township provides brushing, ditching, grass mowing, and shoulder maintenance to ensure roadsides are safe and well maintained.	Roadsides are clear of obstructions and well maintained for safe road travel.		$45,000	Township delivers the Level of Service well.
	Signs can be Seen Clearly	Signs: Visual inspections done in the evening. Replaced when required / needed.	Signs: Visual inspections. Replace when needed.	Reflectivity Standard	$10,000	Township delivers the Level of Service well. Replacements are completed when required.
	Safe Well-lit Urban / Semi-Urban Street Areas	Maintenance activated by Public Notice for Street Lights.	Maintenance activated by Public Notice for Street Lights.	Correction of Issues within MMS		Township delivers the Level of Service well.

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost of Expected LOS	Cost Description
Bridge & Culvert Assets	Safe Bridges	Maintain good bridge condition and 8 bridges with load limits.	Maintain good condition and no load limits.	MTO bridge guides		Township is working towards completing this LOS. Closed Bridge 17 will be re-opened after new construction in 2017, and Bridge 15 will be replaced.
	Bridges Maintained	Follow Bridge Inspection Report recommendations for Bridge and Culvert maintenance.	Proactive Bridge and Culvert maintenance (based on bridge report).		$40,000	Township is completing this LOS, with improving the maintenance issues identified in the Township's Bridge Inspection Report by completing what they can within their identified budget annually.
	Proper Bridge Spring Maintenance	Blowing out Expansion Joints & Washing of Bridges in Spring.	Blowing out Expansion Joints & Washing of Bridges in Spring.			Township is completing this LOS.
	Bridge Inspections	Bridge inspections (i.e., using OSIM reports) required every 2 years.	Bridge inspections (i.e., using OSIM reports) required every 2 years.	Completed every 2 years	$10,000	Township is completing this LOS.

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost to Move to Expected LOS	Cost Description
Building Assets	Safe Buildings	Meet legislative requirement (Building Code, Fire Code, Health & Safety, etc.).	Meet legislative requirement (Building Code, Fire Code, Health & Safety, etc.)	Provincial Guidelines		Township is completing this LOS.
	Facility are Well Maintained	Condition assessments performed when needed.	Facility Condition Assessments showing remaining life of major asset components and required improvements completed.			On-Site inspections completed when required.
	Health & Safety Equipment is in Good Working Order	Health & Safety component assessments to ensure emergency alarms, lighting, generators, etc. are functioning to specifications.	Health & Safety component assessments to ensure emergency alarms, lighting, generators, etc. are functioning to specifications.	Provincial Guidelines		Township is completing this LOS.
	All Facilities Meet Accessibility Standards	All facilities meeting current accessibility standards.	All Facilities meet accessibility standards.	Provincial Guidelines		Township is completing this LOS.
	Maximizing Energy Savings	Energy Audit has been undertaken by the Township.	Resource Efficiency: Energy Audit – for all facilities.			Township does not have any outstanding issues to complete from the Energy audit for buildings.
	Township Office Water is Safe to Drink	Reverse Osmosis and water coolers are used to ensure safe drinking water.	Water is tested regularly and safe to drink.	Provincial Guidelines		Township is completing this LOS.
	Mechanical Systems are Inspected and Maintained	HVAC systems are inspected and maintained annually.	Assess efficiencies in Maintenance contracts (i.e., generators, HVAC).			Township is completing this LOS.
	Clean and well Maintained Facilities	Township has well maintained facilities.	Proactive facility maintenance.			Township is completing this LOS.

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost to Move to Expected LOS	Cost Description
Land Improvements	Safe & Accessible Parks	Meet legislative requirement (Inspections, Health & Safety, etc.).	Meet legislative requirement (Inspections, Health & Safety, etc.).	Provincial Guidelines		Township Staff complete inspections.
	Parks are well Maintained	Condition assessments performed when needed. Monthly inspections of playground equipment.	Monthly inspections of playgrounds and equipment.	Provincial Guidelines		Township is completing this LOS.
	Playgrounds are in Good Working Order	Health & Safety component assessments twice a year to ensure functioning to specifications.	Health & Safety component assessments to ensure functioning to specifications.	Provincial Guidelines	$19,500	Appropriate maintenance measures are being undertaken by the Township.
	Parking Facilities are in Good Condition	Maintenance for Parking areas when required.	Annual Inspections for maintenance for Parking areas.			Township staff to complete and report.
	Sports Fields are Safe and Maintained	Appropriate Maintenance for safe use.	Appropriate Maintenance for safe use.		$10,000	Township is completing this LOS.
	Township Trails are Safe and Maintained	Appropriate Maintenance for safe use.	Appropriate Maintenance for safe use.			Township is completing this LOS.
	Fencing Is Safe	Responding to Public complaints.	Annual inspection and fixing of maintenance issues.	Annual Review		Township to review when complaints submitted. Inspections are completed by staff.

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost to Move to Expected LOS	Cost Description
Vehicles & Equipment Assets	Safe & Well Maintained Vehicles	Proactive maintenance plan, as per Manufacturer's Guidelines.	Proactive maintenance plan, as per Manufacturer's Guidelines.			Township is completing this LOS.
	Safe & Well Maintained Equipment	Proactive maintenance plan, as per Manufacturer's Guidelines.	Proactive maintenance plan, as per Manufacturer's Guidelines.			Township is completing this LOS.
	Optimal Replacement of Vehicles & Equipment	Replace Equipment / Vehicles as required (some areas based on legislated replacements, others minimum safety).	Replace Equipment/Vehicles as required (some areas based on legislated replacements, others minimum safety).			Some concern over the age of some of the vehicles / equipment the Township uses, however they are safe to use. The older vehicles are being used sparingly.

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost to Move to Expected LOS	Cost Description
Storm Water Assets	Effective Storm Water Management	Investigate and respond based on public complaints / concerns.	Proper flows and clear system with little to no inhibitors.	No storm water back-up incidents		Township is completing this LOS.
	Catch Basins are Clear and Well Maintained	Annual Catch Basin cleaning.	Annual Catch Basin cleaning.		$2,000	Township is completing this LOS.
	Storm Water Mains are Clear and Well Maintained	No identified issues.	CCTV review and assessment completed every 15 years. Implement plan for repairs & maintenance that result in system efficiencies.		$5,000	CCTV program every 15 years.

	Expected Strategic LOS	Level of Service (LOS) Analysis				
		Current LOS	Expected LOS	Benchmark (if Applicable)	Estimated Cost of Expected LOS	Cost Description
Water Assets	Source Water is well Protected	Maintaining appropriate Zoning and Planning to ensure Source Water Protection	Maintaining appropriate Zoning and Planning to ensure Source Water Protection			Township is completing this LOS
	Production Wells are well Maintained	Appropriate maintenance is undertaken when required	Appropriate maintenance is undertaken when required			Township is completing this LOS
	Treatment Processes Meet Legislative Requirements	Meet all legislative requirements.	Meet all Provincial legislative requirements.	Provincial Guidelines		Township is completing this LOS
	Well Maintained Generator	Tested monthly	Tested and well maintained generators		$3,000	Township is completing this LOS. Annual service maintenance
	Appropriate Water Storage for Distribution Network	Water Storage is sufficient for currently approved developments. Beyond that the system may be reaching capacity levels	Water Storage meets the needs of the Water Distribution Network			Need to address capacity if the Township wishes to grow. Costs for upgrades and water main replacement is built into the Capital costs
	Efficient Water Distribution System	Water losses are tracked and at a minimum	Water Losses are tracked and minimized		$1,000	Township is completing this LOS. Annual effort to gain access to exersize main valves.
	Sufficient Water pressure for Fire Protection	Water pressure does not meet Fire Protection Standards and new water main and hydrants will need to be installed with more water pressure generated at the pump house	Water Pressure meets Fire Protection Standards of 50psi			Township is working up a plan to upgrade the system to ensure Fire Pressure
	Hydrants are Flushed and Swabbed	System is flushed twice a year, and annual refirbishing program	Flushing Program meets Guideline Standards			Township is completing this LOS. Annual referbishing program

4.0 Asset Management Strategy

4.1 Scope and Process

The asset management strategy provides the recommended course of actions required to maintain (or move towards) a sustainable asset position while delivering the levels of service discussed in the previous chapter. The course of actions, when combined together, form a long-term operating and capital forecast that includes:

- Non-infrastructure solutions: Reduce costs and/or extend expected useful life estimates;
- Maintenance activities: Regularly scheduled activities to maintain existing levels of service levels, or repairs needed due to unplanned events;
- Renewal / Rehabilitation: Significant repairs or maintenance planned to maintain the levels of service and increase the remaining life of assets; and
- Replacement / Disposal: Complete disposal and replacement of assets, when renewal or rehabilitation is no longer an option.

Priority identification becomes a critical process during the development of an asset management strategy. Priorities have been determined based on assessment of the overall risk of asset failure, which is determined by looking at both the probability of an asset failing, as well as, the consequences of failure. The consequences of the municipality not meeting desired levels of service must also be considered in determining risk. As discussed in Chapter 3, adding enhanced levels of service results in both operating and capital budget impacts over the 20 year forecast period. This has to be taken into consideration, with the overall objective of reaching sustainable levels while mitigating risk.

4.2 Risk Assessment

The risk of an asset failing is defined by the following calculation:

Risk of Asset Failure = Probability of Failure X Consequence of Failure

Probability of failure has been linked to the condition assessment for each asset, assuming that an asset in “very good” condition has a “rare” probability of failure. The following table outlines the probability factor tied to each condition rating:

Table 4-1: Probability of Failure Matrix

Condition (Value)	Condition	Probability of Failure
9 – 10	Very Good	Rare
7 – 8	Good	Unlikely
5 – 6	Average	Possible
3 – 4	Poor	Likely
1 – 2	Very Poor	Almost Certain

Consequence of failure has been determined by examining each asset type separately. Consequence refers to the impact on the municipality if a particular asset were to fail.

Types of impacts include the following:

- Cost Impacts: the cost of failure to the Township (i.e., capital replacement, rehabilitation, fines and penalties, damages, etc.);
- Social impacts: potential injury or death to residents;
- Environmental impacts: the impact of the asset failure on the environment; and
- Service delivery impacts: the impact of the asset failure on the Township's ability to provide services at desired levels.

Each type of impact was reviewed and consequence of failure for each asset type was determined by using the information contained in Table 4-2 as a guide to assess the level of impact. Levels of impact were documented as ranging from "significant" to "insignificant".

Table 4-2: Consequence of Failure Matrix

	Cost	Social	Environmental	Service Delivery
Significant	Significant Cost – Difficult to Recover	Death, Serious Injury	Long-term Impact – Permanent	Major Interruptions
Major	Substantial Cost – Multi-year Budget Impacts	Major Injury	Long-term Impact – Fixable	Significant Interruptions
Moderate	Considerable Cost – Requires Revisions to Budget	Moderate Injury	Medium-term Impact – Fixable	Moderate Interruptions
Minor	Small / Minor Cost – Within Budget Allocations	Minor Injury	Short-term / Minor Impact – Fixable	Minor Interruptions
Insignificant	Negligible or Insignificant Cost	No Injury	No Impact	No Interruptions

With both probability of failure and consequence of failure documented, total risk of asset failure was determined using the matrix contained in Table 4-3. Total risk has been classified under the following categories:

- Extreme Risk (E): Risk beyond acceptable levels;
- High Risk (H): Risk slightly beyond acceptable levels;
- Medium / Moderate Risk (M): Risk at acceptable levels, monitoring required to ensure risk does not become high; and
- Low Risk (L): Very little risk.

Table 4-3: Total Risk of Asset Failure Matrix

Probability of Failure	Consequence of Failure				
	Significant	Major	Moderate	Minor	Insignificant
Almost Certain	E	E	H	H	M
Likely	E	H	H	M	M
Possible	E	H	M	M	L
Unlikely	H	M	M	L	L
Rare	H	M	L	L	L

Risk levels can be reduced or mitigated through planned maintenance, rehabilitation and/or replacement of an asset. An objective of this asset management plan is to reduce risk levels where they are deemed to be too high, as well as, ensure assets are maintained in a way that keeps risk at acceptable levels.

4.3 Priority Identification

Through a review of the asset risk of failure assessment, the assets / categories listed below were identified as being priorities of the Township for over the next few years.

Roads

- 10th Line – from East Garafraxa / Erin Townline to County Road 3. Application of reclamite to rejuvenating agent for asphalt roads (approximate cost $40,000; 2017).
- 17th Line – from East Garafraxa / Erin Townline to Greenwood Pit Entrance. Asphalt surface to finish off 17th Line paving project (approximate cost $80,000; 2018).
- Hilltop Crescent – Requires re-surfacing the paved road with some additional base support (approximate cost $80,000; 2018)

Bridges

- Bridge 7 – This bridge requires a major rehabilitation. As a heritage bridge it is vital that work is completed on this bridge as soon as practicable (approximate cost $433,000; 2018).
- Bridge 17 – Based on the bridge inspections this bridge is scheduled to be replaced (approximate cost $50,000; 2018).

Facilities

- Marsville Community Centre Heating system – The heating system is very old and has regular maintenance completed on it but it is understood that it is not going to last long with a high risk of failure rating (approximate cost $3,000; 2017).
- Public Works Septic System – This old system in the Spring at times has issues with saturation, and capacity form Spring melt. This could turn into a Health & Safety issue and is identified as a high risk of failure asset. It is recommended that it be replaced (approximate cost $20,000; 2017).

Vehicles

- 1988 Champion Grader Unit 75 – Is well past its expected life and is recommended to be replaced. These types of vehicles are critical to ensuring that Township roads are in good repair and safe to drive (approximate cost $425,000; 2017).

Water System

- Marsville Well – There are two wells drilled at the pump house however only one is commissioned and in production. The second well needs to be commissioned and put in service to lower the probability of failure as well as provide for the current well to be replaced in the next 5 years (approximate cost $75,000; 2019).
- Marsville Water Main – This system is old and not operating at Fire Pressure. This is below a safe standard. It is expected that the water main needs to be replaced if there is going to be any growth potential in the area; (approximate cost $400,000, 2020).
- Marsville Hydrants – If the water main will be replaced so should the hydrants. As the water pressure is not to fire standard it is expected that the hydrants need to be replaced at the same time as the water mains (approximate cost $25,500; 2020).

This list of capital asset replacements are only for the next few years, and do not limit the needs that the Township requires to become fully sustainable. The Finance Strategy will further outline the needs for investing in assets annually via reserves to ensure that funds are available for future asset replacements.

4.4 Long-term Forecast

For many years, lifecycle costing has been used in the field of engineering to evaluate the advantages of using alternative materials in construction or production design. The method has gained wider acceptance and use recently in the management of capital assets. By definition, lifecycle costs are all the costs which are incurred during the lifecycle of a capital asset, from the time it is purchased or constructed, to the time it is taken out of service for disposal.

In defining the long-term forecast for the Township's asset management strategy, costs incurred through an asset's lifecycle, the assets condition, expected LOS, and risk were considered and documented. Asset Replacement Analysis in forecasting the municipality's asset replacement needs are summarized in Figure 4-1, which we are calling Asset Strategy Scenario 1 based on expected levels of service. This asset strategy was further developed into a Scenario 2a, and 2b. This second developed scenario takes the developed asset strategy and applies a Capital Phased-In Approach as shown in Figure 4-2. Scenario 2 is fully discussed in Chapter 5.

The asset strategy incorporated all of the information discussed above in this report and based on the information provided by the Township, the completed field asset assessments, past reports, staff input, and understanding of the asset's reaction in their current environment as well as the expected asset maintenance levels, and the current asset condition, which is expected to produce a reduced asset potential risk of failure. The outcome of this scenario approach was to provide appropriate asset service levels, and assets are expected to meet or exceed their useful life which reduces expected infrastructure deficits. In total, $26.4 million in assets (inflated to appropriate year) are shown as replacement and LOS needs in the 20 year forecast. This is the recommended asset strategy for the Township of East Garafraxa.

Assets like Bridges, Storm Water, and Facility Structures, are not expected to be replaced for usually over 50 years. It needs to be stated to ensure that these assets have reserve funding for their replacement schedule in the future. These assets will need to be replaced beyond the 20 year analysis period and not having reserve funds to do so will elevate the risk of failure to extreme levels in the future. Scenario 2b makes an attempt at providing the Township with an investment plan into Township reserve accounts.

For the recommended scenario to be feasible, the expected level of service adjustments discussed in Chapter 3 are needed in conjunction with the current level of service amounts in order to effectively maintain and rehabilitate the assets as required.

The financing strategy discussed in the next chapter will incorporate the level of service adjustments into the recommended financing analysis. Please refer to Appendix C for the full 20 year details.

4.4.1 Water Supported Assets

A representation of the water supported assets is being presented here for completeness. As noted above these assets undertake their own sustainability Financing Plan and Rate Studies. Based on the information provided Figure 4-3 shows the 20 year distribution of water supported asset strategy.

Figure 4-1: Scenario 1 – Proposed Tax Supported Asset Strategy Based on Expected Levels of Service

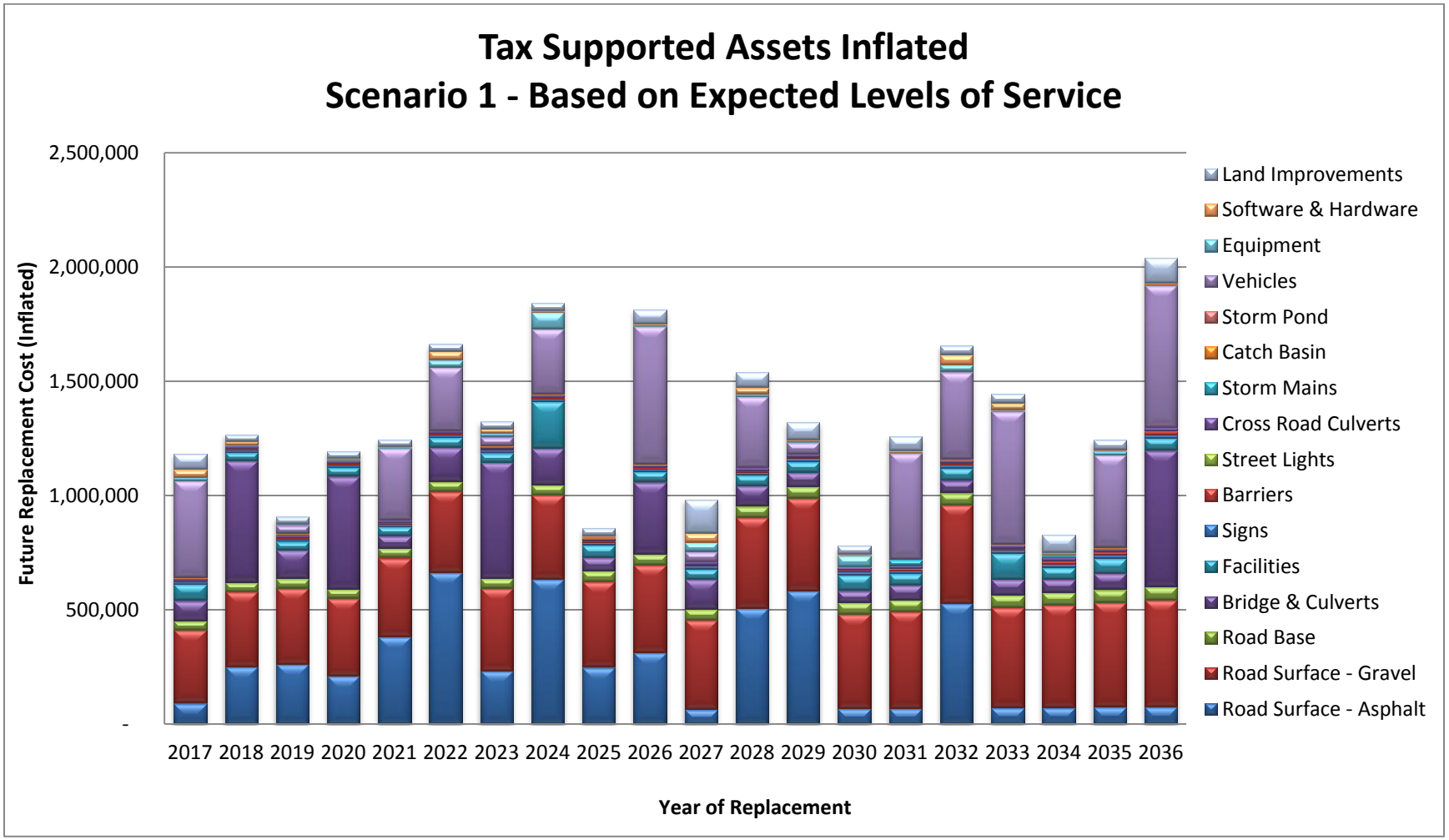


Figure 4-2: Scenario 2 – Tax Supported Assets Capital Phased In Approach

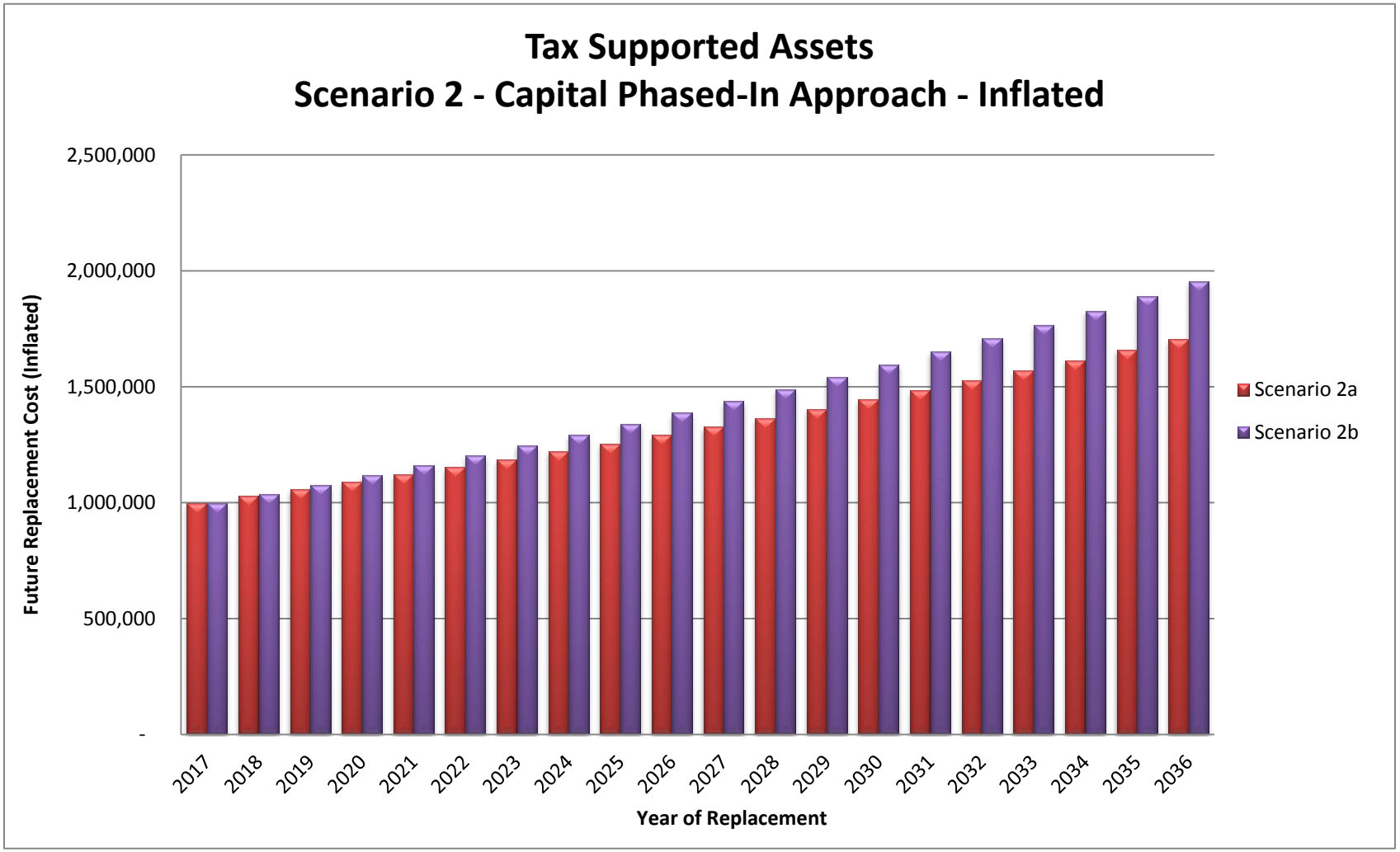
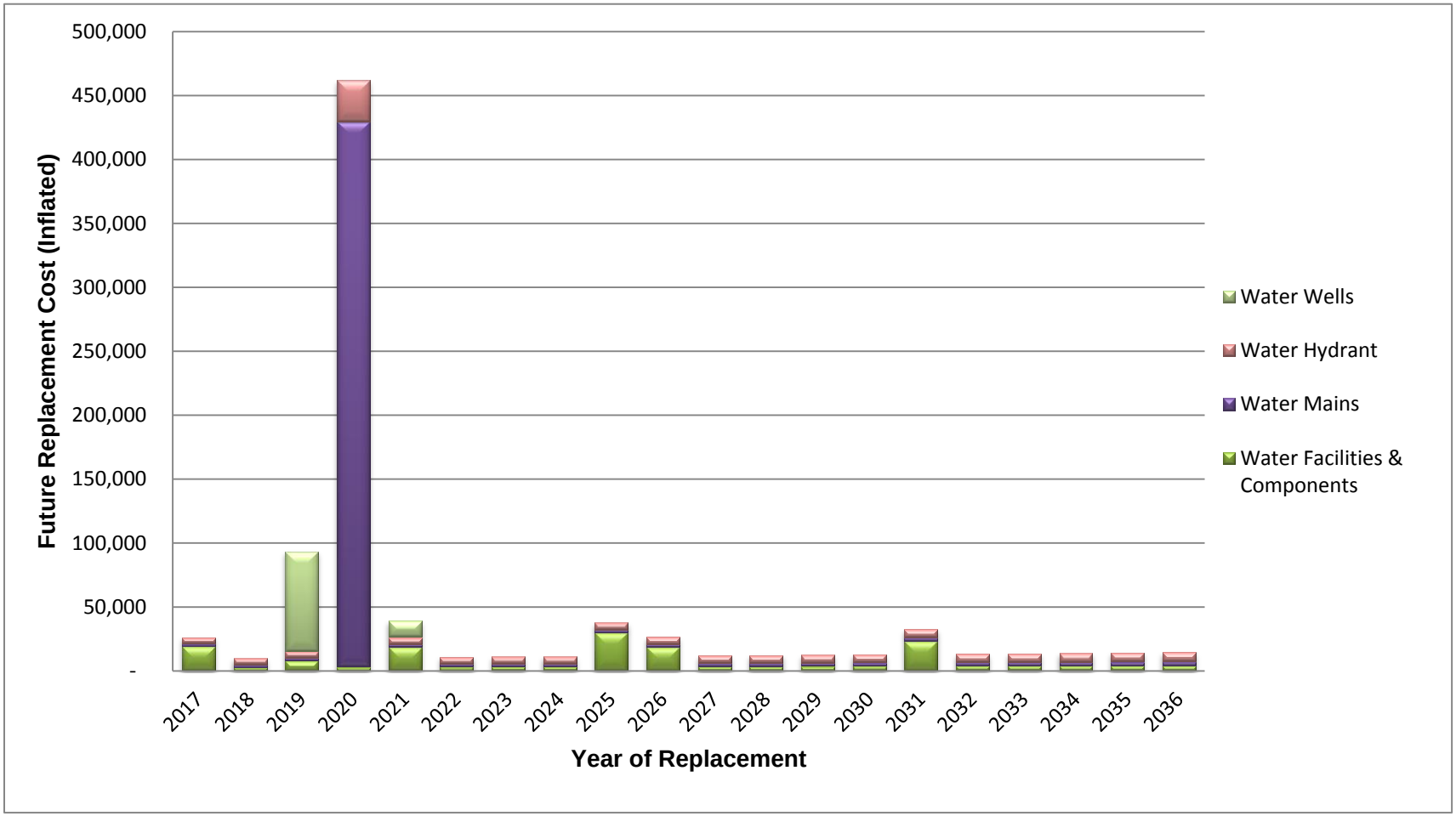


Figure 4-3: Proposed Water Supported Asset Strategy for 20 Year Period



5.0 Financing Strategy

5.1 Scope and Process

The financing strategy outlines the suggested financial approach to funding the tax supported asset management strategies outlined in Chapter 4, while utilizing the Township's existing budget structure and available funding sources. This section of the asset management plan includes:

- Annual expenditure forecasts broken down by lifecycle cost, including:
  - Maintenance / non-infrastructure solutions;
  - Renewal / rehabilitation activities;
  - Replacement/disposal activities; and
  - Expansion activities.
- Actual expenditures in the above-named categories for 2015 and 2016, and budgeted expenditures for 2017;
- An approximation of the annual funding devoted to Capital improvements / Replacements;
- Identification of the funding shortfall and the infrastructure gap, including how the impact will be managed; and
- All key assumptions documented.

The financing strategy forecasts (including both expenditure and approximate capital revenue sources) were prepared consistent with the Township's budget structure so that it can be used in conjunction with the annual budget process. Various financing options, including user fees, reserve funds, debt, and grants were considered during the process.

For all financing strategy scenarios, a detailed 20 year plan was generated. The plan identifies specific lifecycle costs and associated funding sources required for the asset management strategies described in Chapter 4.

5.2 Historical Results

Discussions with Township staff identified that

Historical results for 2015-2016 and the 2017 budget for Township services (all tax supported), including all capital (i.e., renewal / rehabilitation, replacement / disposal, and expansion) were reviewed. Over the last three years the Township seems to have been trying to increase its efforts to close the infrastructure gap. Based on the past three years and discussion with Township staff a value of $1,000,000 is the approximate capital funding the Township has provided to capital and related LOS annually. This includes the use of development charges for growth (expansion) related costs, reserve funds, Gas Tax funds, and grants / subsidies. Please note that the Township was

unsuccessful in obtaining the one-time Ontario Community Infrastructure Fund (OCIF) funding in 2016 for the rehabilitation of Bridge 7. If funding like was obtained by the Township it would help but not eliminate the infrastructure gap.

5.3 Tax Supported Financing Strategies

As discussed in Chapter 4, two asset management strategies were developed to provide different avenues of moving towards sustainable asset management planning. Scenario 1 outlines the preferred approach, allocating rehabilitation and replacement needs based on asset condition, risk and expected levels of service. Scenario 2, the recommended approach, provides for the same capital needs as Scenario 1 over the 20 year forecast period, however, some potential capital deferrals are used to phase-in the impact over earlier years to assist with affordability. Included in this chapter are three distinct financing strategies, one for Scenario 1 and two for Scenario 2 (referred to as 2a and 2b), that attempt to move the Township towards asset management sustainability.

Table 5-1 below provides a costing overview of the three financing strategies and the cumulative, non-inflated and inflated capital expenses over five, ten, and twenty years of the forecast. Please note that the totals below include not only rehabilitation and replacement needs identified in Chapter 4, but also levels of service and expansion related capital costs for tax supported assets. Scenarios 2a and 2b provide the same capital forecast; however provide different options on how to finance the recommended asset management scenario. As noted above, Scenario 2 ensures all capital identified in Scenario 1 is completed by the end of the 20 year forecast, but achieves so at a marginally higher price due to capital inflation.

Table 5-1: Tax Supported Financing Strategy Scenarios

Capital	Over 5 Years	Total Potential Added to Reserves	Over 10 Years	Total Potential Added to Reserves	Over 20 Years	Total Potential Added to Reserves
Non-Inflated						
Scenario 1	$5,578,259	$0	$12,120,905	$0	$21,910,198	$0
Scenario 2a	$5,090,000	($488,259)	$10,405,000	($1,715,905)	$21,710,000	($200,198)
Scenario 2b	$5,180,000	($398,259)	$10,810,000	($1,310,905)	$23,420,000	$1,509,802
Inflated						
Scenario 1	$5,802,283	$0	$13,311,251	$0	$26,407,125	$0
Scenario 2a	$5,299,568	($502,715)	$11,409,274	($1,901,977)	$26,518,404	$111,278
Scenario 2b	$5,395,095	($407,188)	$11,868,827	($1,442,424)	$28,739,437	$2,332,312

Several methods of funding capital expenditures are utilized across all three financing strategy scenarios, in particular:

- Taxation funding is suggested for all maintenance costs, reserve fund transfers, as well as levels of service adjustment related costs related to operations;
- Formula based Ontario Community Infrastructure Fund (OCIF) proceeds and Gas Tax proceeds are expected to be stable and long-term funding sources for capital projects;
- External Debt financing may be an additional measure required to help smooth capital financing in years where there are increases in funding requirements. This is in particular a good method over the first five years of the 20 year plan;
- Internal debt issued from the Township's Reserve Fund (when accumulated) can be utilized to help fund annual capital needs Understanding that these Reserve Funds need continuous investment to provide for potential unexpected capital needs as well as long term capital needs; and
- The portion of newly acquired or constructed assets that are growth (DC) related can be financed by development charges.

The Township will be dependent upon maintaining healthy capital reserve funds in order to provide the remainder of the required funding over the forecast period. This will require the Township to proactively increase amounts being transferred to these capital reserve funds during the annual budget process. Scenario 2b is the most applicable for the Township to implement and increase the capital reserve accounts, as beyond the 20 year plan there will be additional capital needs that will need funding.

5.3.1 Scenario 1: Expected Levels of Service

Figure 5-1 below presents the first 10 years of the capital forecast for Scenario 1. This forecast ensures that capital assets are rehabilitated or replaced as identified, based on levels of service, risk and condition (see Chapter 4).

Table 5-2 shows the tax supported expenditure forecast for maintenance, renewal / rehabilitation, replacement / disposal and expansion for the first 10 years of the forecast. While this summary only shows high-level cost classifications, further detail (including the full 20-year forecast) can be obtained from Appendix A and Appendix C.

Items in Table 5-3 labelled as "Levels of Service" refer to the expanded levels of service analysis discussed in Chapter 3 and found for the 20 year period in Appendix C.

Figure 5-1: Tax Supported Assets Scenario 1 – Based on Expected Levels of Service

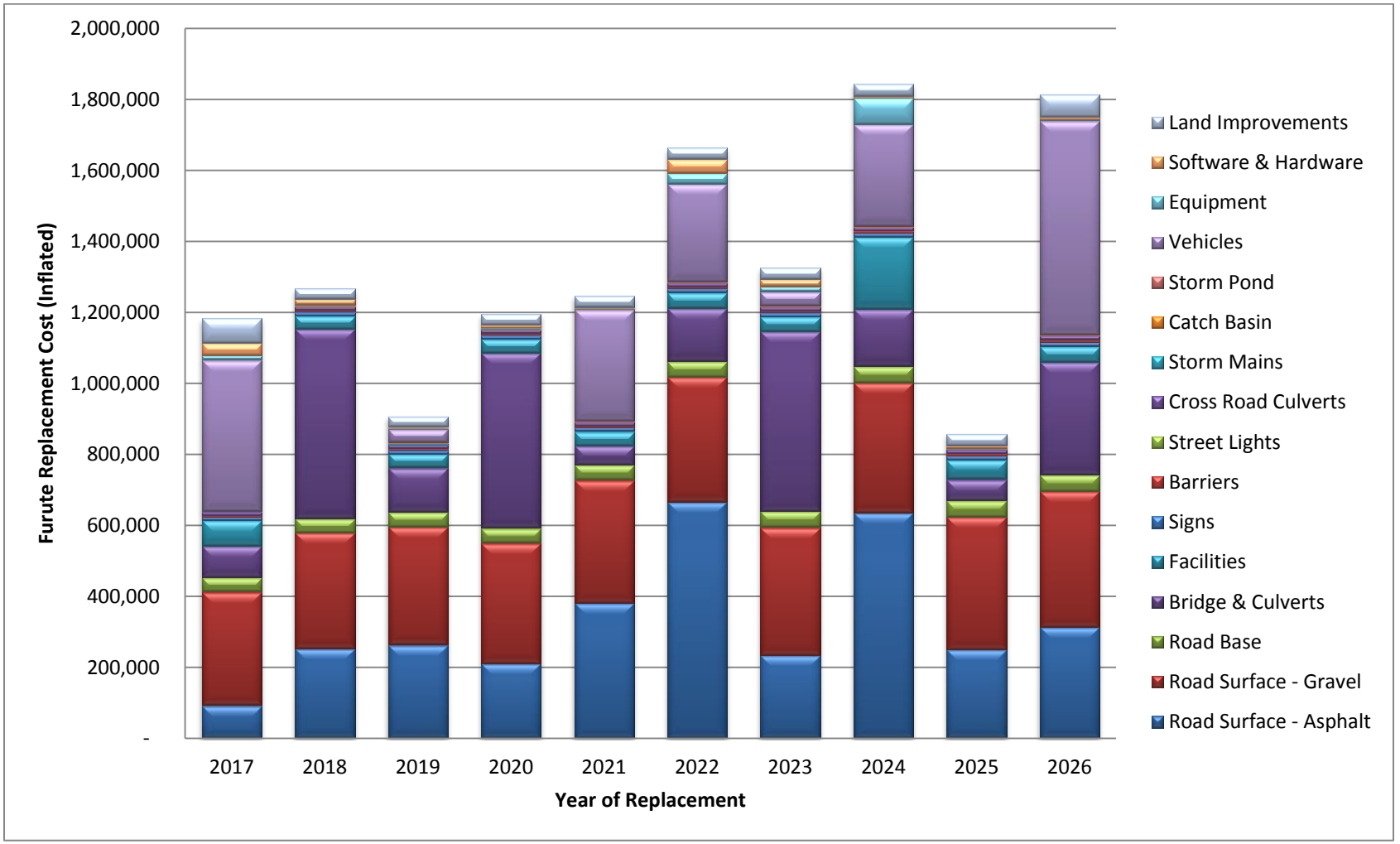


Table 5-2: Tax Supported Capital Expenditure Forecast Scenario 1: Expected LOS

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Scheduled Capital – Inflated	**1,184,049**	**1,268,135**	**907,749**	**1,195,388**	**1,246,962**	**1,665,008**	**1,326,575**	**1,843,758**	**858,240**	**1,815,386**
Road Surface – Asphalt	93,000	252,960	263,221	210,650	381,557	665,761	234,242	635,223	249,563	313,592
Road Surface – Gravel	320,000	326,400	332,928	339,587	346,378	353,306	360,372	367,579	374,931	382,430
Road Base	40,000	40,800	41,616	42,448	43,297	44,163	45,046	45,947	46,866	47,804
Bridge & Culverts	89,000	533,460	124,848	493,462	54,122	149,051	506,773	160,816	58,583	316,700
Facilities	72,000	37,740	38,495	39,265	40,050	44,163	41,668	203,317	55,068	44,218
Signs	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951
Barriers	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975
Street Lights	–	–	–	–	–	–	–	–	–	–
Cross Road Culverts	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951
Storm Mains	–	–	5,202	–	–	–	–	–	–	–
Catch Basin	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390
Storm Pond	–	–	–	–	–	–	–	–	–	–
Vehicles	425,000	–	36,414	–	313,905	276,020	39,416	287,171	–	603,522
Equipment	13,000	3,060	3,121	3,184	3,247	30,914	14,640	73,059	3,515	3,585
Software & Hardware	35,549	16,085	3,121	6,835	3,247	39,249	20,790	5,743	3,515	6,135
Land Improvements	69,500	30,090	30,692	31,306	31,932	32,570	33,222	33,886	34,564	65,133

Table 5-3: Identified and Expected Levels of Service

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total Scheduled Capital – Inflated	**392,500**	**425,850**	**413,559**	**405,912**	**424,855**	**422,311**	**442,019**	**439,372**	**459,876**	**457,123**
Road Surface – Asphalt	53,000	89,760	55,141	56,244	57,369	58,516	59,687	60,880	62,098	63,340
Road Surface – Gravel	170,000	173,400	176,868	180,405	184,013	187,694	191,448	195,277	199,182	203,166
Road Base	40,000	40,800	41,616	42,448	43,297	44,163	45,046	45,947	46,866	47,804
Bridge & Culverts	50,000	40,800	52,020	42,448	54,122	44,163	56,308	45,947	58,583	47,804
Facilities	37,000	37,740	38,495	39,265	40,050	40,851	41,668	42,501	43,351	44,218
Signs	–	–	–	–	–	–	–	–	–	–
Barriers	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975
Street Lights	–	–	–	–	–	–	–	–	–	–
Cross Road Culverts	–	–	–	–	–	–	–	–	–	–
Storm Mains	–	–	5,202	–	–	–	–	–	–	–
Catch Basin	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390
Storm Pond	–	–	–	–	–	–	–	–	–	–
Vehicles	–	–	–	–	–	–	–	–	–	–
Equipment	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585
Software & Hardware	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585
Land Improvements	29,500	30,090	30,692	31,306	31,932	32,570	33,222	33,886	34,564	35,255

In order to fund the recommended asset requirements over the forecast period using the Township's own available funding sources (i.e., using taxation, Gas Tax funding, OCIF funding, reserves / reserve funds, and internal and external debentures), an increase in the Township's taxation levy of approximately 1% – 2% annually would be required. However, if other funding sources become available (i.e., grant funding) or if maintenance and rehabilitation practices allow for the deferral of capital works, then the impact on the Township's taxation levy would decrease under Scenario 1 implementation.

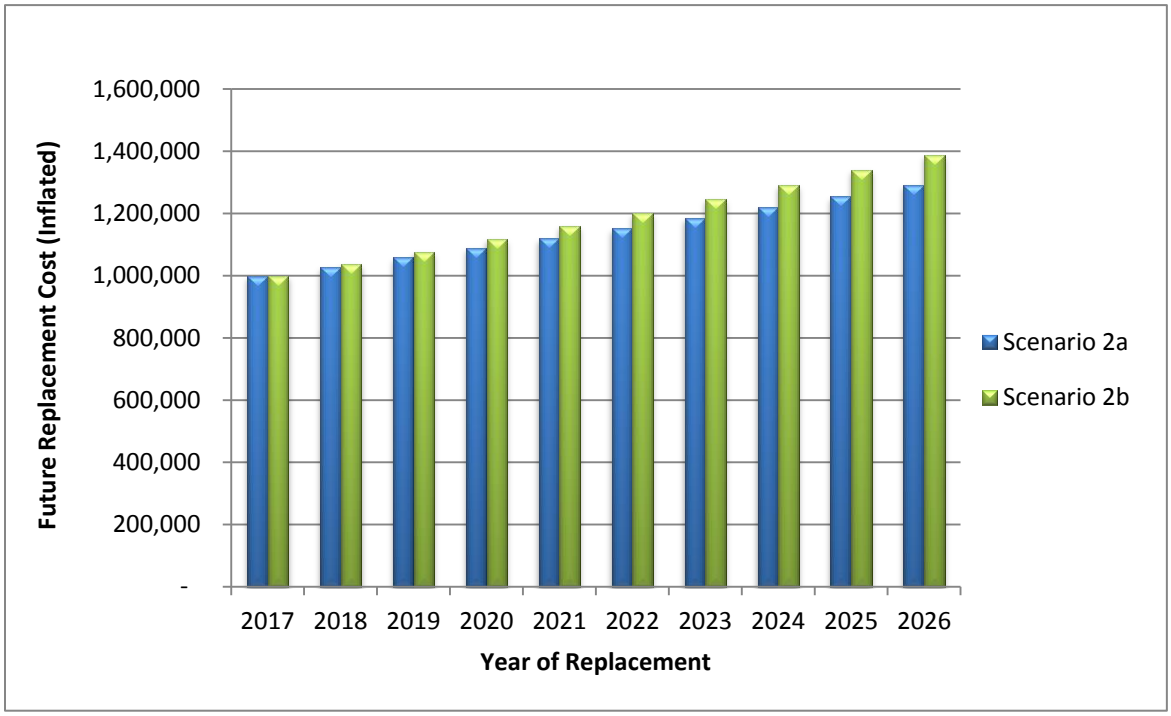
5.3.2 Scenarios 2a and 2b

As previously mentioned, Scenarios 2a and 2b present different funding options to finance the recommended asset management strategy. The major difference between these two approaches is the extent to which capital assets are either financed through external debt, or deferred until funds are available as well as the resulting impact on projected taxation rates. Scenario 2b opts to use less external debentures, resulting in higher taxation rates, while Scenario 2a utilizes more potential external debentures, which has the effect of reducing the impact on taxation (by spreading capital costs out over many years). Note that even with a 1% annual tax increase towards capital funding it will take over 10 years in Scenario 2b to attain a positive investment into Capital Reserves.

Figure 5-2 below presents the first 10 years of the capital forecast for the recommended Scenario 2 asset management strategy. In this figure, the different Scenarios 2a and 2b are shown.

This forecast gradually increases the investment in capital assets over the forecast period. Both Scenario 2a and 2b start at $1,000,000. The difference between Scenario 2a and 2b is that Scenario 2b has a higher annual increase in annual taxation. Scenario 2a increases by 0.5% tax increase and Scenario 2b increases by 1% tax increase, each year over the 20 year period.

Figure 5-2: Tax Supported Assets Scenario 2a and 2b



The Scenario 2 asset management strategy defers the timing of some of the capital assets identified in the early years of Scenario 1 to assist in implementing sustainable funding. Please note that if additional funding is identified (i.e., grants) or cost efficiencies are found through annual budget processes going forward, this infrastructure gap could be reduced further.

Table 5-4: Tax Supported Capital Expenditure Forecast

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Scenario 2a	1,000,000	1,029,180	1,059,127	1,089,861	1,121,400	1,153,764	1,186,975	1,221,053	1,256,019	1,291,895
Scenario 2b	1,000,000	1,038,360	1,077,854	1,118,513	1,160,367	1,203,448	1,247,788	1,293,420	1,340,378	1,388,698

Table 5-4 shows the tax supported expenditure forecast for maintenance, renewal / rehabilitation, replacement / disposal and expansion for the first 10 years of the forecast. While this summary only shows required investment, further detail (including the full 20 year forecast) can be found in Appendix C.

In order to fund the recommended asset requirements over the forecast period using the Township's own available funding sources (i.e., using taxation, Gas Tax funding, OCIF funding, reserves / reserve funds, and internal and external debentures), an increase in the Township's taxation levy (which includes inflationary operating adjustments, assumed to be 2.0%). Scenario 2a and 2b have a starting point at $1,000,000 in year

2017, and increasing at a lower rate than Scenario 2b, starting at $1,000,000 but increasing at a higher rate each year. The objective of these two scenarios was to ensure that the total funding required was in place to complete the capital works over the 20 year period.

This Scenario 2 may require some debt or initial draining of reserve funds or capital project deferral. It is important to point out that debt would be a short term need as the tax levies catch up with the capital requirements of the Township in the second half of the 20 year forecast period. However, if other funding sources become available (i.e., grant funding) or if maintenance and rehabilitation practices allow for the deferral of capital works, then the impact on the Township's taxation levy would decrease.

5.3.3 Financing Strategies Summary

The main differences between the scenarios:

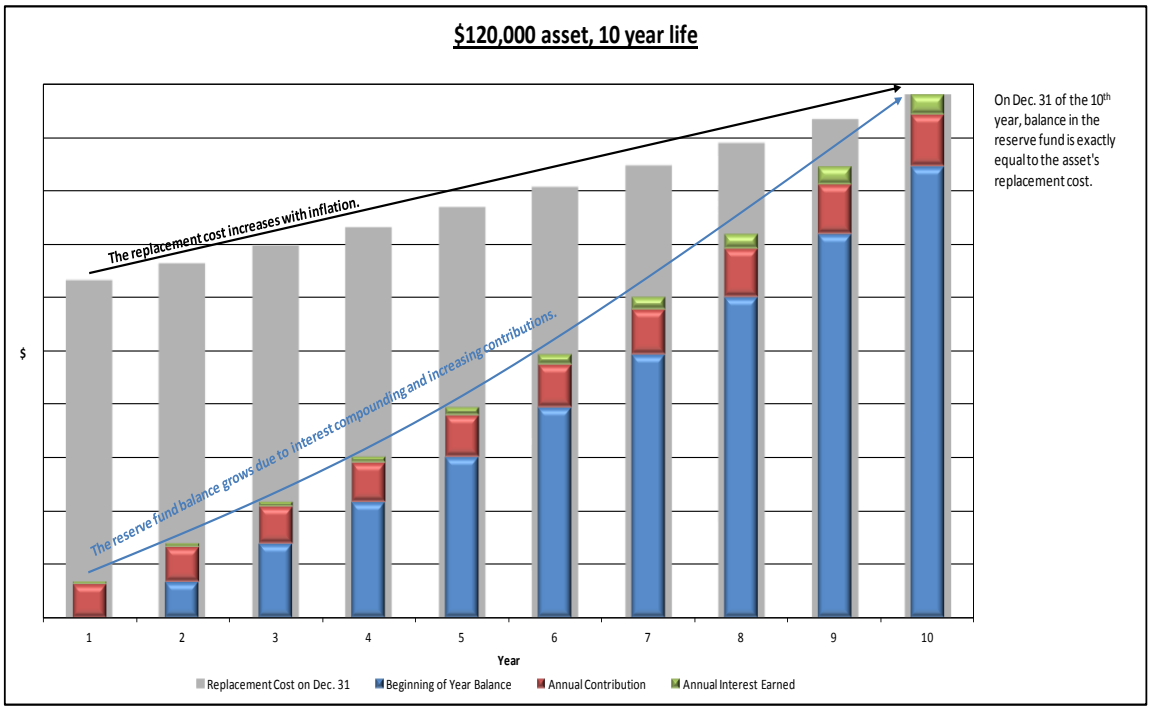
- The deferral of capital within the 20 year forecast period in Scenarios 2a, and 2b;
- The use of external debentures to help finance capital in the early years of the forecast period; and
- The year-over-year increases to the taxation rate.

Assuming the Township maintains adequate capital reserve funds, both financing strategies will fully fund all capital identified for replacement via their expected levels of service. While the annual funding requirement may fluctuate, it is important for the Township to implement a consistent, yet increasing annual investment in capital so that the excess annual funds can accrue in capital reserve funds.

5.4 Infrastructure Funding Gap

A fundamental approach to calculating the cost of using a capital asset and for the provision of the revenue required when the time comes to retire and replace it is the "sinking fund method." This method first estimates the future value of the asset at the time of replacement, by inflating the current value of the asset at an assumed annual capital inflation rate. A calculation is then performed to determine annual contributions which, when invested in a reserve fund, will grow with interest to a balance equal to the future replacement cost. The contributions are calculated such that they also increase annually with inflation. Under this approach, an annual capital investment amount is calculated where funds are available for short-term needs while establishing a funding plan for long-term needs. Annual contributions in excess of capital costs in a given year would be transferred to a "capital replacement reserve fund" for future capital replacement needs. This approach provides for a stable funding base, eliminating variances in annual funding requirements, particularly in years when capital replacement needs exceed typical capital levy funding. Please refer to Figure 5-3 for an illustration of this method.

Figure 5-3: Sinking Fund Method



This is the recommended approach to developing the optimal capital investment amounts that feeds into the Financing Strategy and infrastructure funding deficit calculation below.

5.4.1 Tax Supported Services

Capital investment is hereto referred as the sum of annual contributions to fund capital asset rehabilitation, replacement, and/or expansion. For the purposes of the Township, this can take the form of contributions to capital reserves/reserve funds, internal and external debt payments and consistent capital grant funding. This differs from the Township's annual budget and forecast, which includes asset maintenance from an operating perspective and one time funding for capital projects. The annual capital investment represents ongoing and constant investments in capital over the forecast period. From a tax supported asset base perspective, the estimated optimal annual capital investment is identified to be over $1.1 million (not inflated based on a 20 year period). Based on the Township's past expenditures and 2017 budget, annual capital investment is approximately $1,000,000. This would provide a high-level estimate of the Township's annual tax supported infrastructure funding gap at approximately $100,000.

5.4.2 Improving the Annual Funding Deficit

Under the recommended financing strategies (2a or 2b), the Township would be making proactive attempts to mitigate these funding gaps over the forecast period.

To further mitigate the potential infrastructure funding deficit, the Township could consider:

- Decreasing expected levels of service to make available capital funding;
- Issuing more debt for significant and/or unforeseen capital projects, in addition to the debt recommended within this report, while staying within the Township's debt capacity limits (this would have the impact of spreading out the capital repayment over a defined term);
- Actively seeking out and applying for grants;
- Consider approaching the community for funding assistance with respect to growth/ expansion related projects;
- Rate increases, where needed (i.e., taxation); and/or
- Implementing net operating reductions or efficiencies. For example:
  - Reduced operating costs to allow for more capital investment.

6.0 Recommendations

The following recommendations have been provided for the Township of East Garafraxa consideration:

- That this Asset Management Plan be received and approved by the Township of East Garafraxa Council; and
- That consideration of this Asset Management Plan be given as part of the annual budgeting process to ensure sufficient capital funds are available to fund capital requirements over the long-term.

The current level of funding for asset replacement and renewal at the Township will not sufficiently fund required capital needs or close the infrastructure funding gap. As such, it is recommended that the following be considered:

- That Council approve one of the recommended financing strategy scenarios, for Township staff to implement moving forward;
- That the "Levels of Service" strategies discussed in this report be approved;
- That the Township use "reserve funds" for asset management planning purposes;
- That this Asset Management Plan be updated and improved as needed over time to reflect the current priorities of the Township; and
- That the Township consider the capital priorities identified within this report when applying for future grants or deciding on how to utilize Gas Tax, OCIF funding and/or other funding that becomes available.

Substantial investment in asset capital needs will be required over the 20 year forecast period and beyond. Through the recommendations provided above, proactive steps will be made to increase capital investment, as well as, reduce the annual infrastructure funding gap for Township assets. Enhanced maintenance plans will assist in

maintaining adequate asset conditions, mitigate asset risk as well as potentially defer capital needs within the forecast period. In addition, the Township of East Garafarxa is recommended to pursue all available capital grants wherever possible to further reduce the infrastructure funding gap.

Through the creation of this plan, the Township has been provided with Excel spreadsheets in which amendments and revisions can be made as needed by the Township. It is anticipated that this plan adopted by Township Council will be monitored and updated frequently as part of the budget process, with refinements and specific recommendations being provided with respect to the priority of each individual project.

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix A

Township Asset Inventory & Asset Management Plan Assumptions

APPENDIX A: ASSET MANAGEMENT PLAN ASSUMPTIONS

The following assumptions were made and applied during the creation of the Township of East Garafraxa's asset management plan.

1. STATE OF LOCAL INFRASTRUCTURE

   a) All replacement costs were estimates based on current 2016 pricing.
   b) Historic Costs of assets that were added to the Township's asset inventory and did not have a historic cost identified made use of deflation tables from estimated current 2016 costs back to the installation date of the asset. Indexes were using Non-Residential Building Construction Price Index (NRBCPI).
   c) Amortization of assets was using a straight line amortization, starting the year after the year of acquisition.
   d) Useful life of an asset were provided by the Township, discussed with Township Staff and/or obtained from similar assets in other communities/municipalities.
   e) Condition was from asset inspections (live and/or desktop), from staff's understanding of the asset's relative condition, and finally via estimation from the asset's age were used to provide estimated remaining life to the assets.

2. ASSET MANAGEMENT STRATEGY

   a) Capital inflation rate was assumed to be 2.0% annually.
   b) Operating budget inflation rate was assumed to be 2.0% annually.
   c) Regarding operating expenses included in the Township's current budget, it is assumed that they will increase at an operating inflation rate annually.

3. FINANCING STRATEGY

   a) Gas Tax and OCIF Formula Based Funding revenue have been identified as a funding source for the purposes of this analysis (i.e. for asset replacement purposes), and has been assumed to continue throughout the forecast period.
   b) Interest rate earned on a Capital Replacement Reserve Funds will be 1.0% annually.
   c) Township of East Garafraxa past Annual Capital Investment was identified as $1,000,000.

East Garafraxa
Water - Facilities & Components

Current Leveles of Service — **Replacement/Improvement Year Based on Current Levels Service**

Expected Levels of Service — **Replacement/Improvement Year Based on Expected Levels Service**

Fixed Asset #	Identification	Location	Asset Name - Facility Components	Description	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost 2016	Condition Based On Useful Life	Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life	Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Subsequent Rehab (cost 2016 $)	Subsequent Year for Rehab	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
							27	39	$136,070	$101,917	$34,153	$394,182			5.2					3							$ 13,000									
			Marsville Pumphouse																																	
2723	Facilities - Buildings	Water Treatment Plant	Pumphouse Marsville		1972	75	31	44	$56,670	$56,670	$0	$310,000	4	5	5	Average	Possible	Major	H	3	2040	10	2048	2043	2118	27						0	2048	2040	2115	24
2720	Facilities - Buildings	Parking Lot	Driveway - Marsville Pumphouse		1972	30	0	44	$218	$218	$0	$5,000	0	5	5	Average	Possible	Major	H	3	1999	10	2002	2017	2062	1						30	2011	2017	2047	1
2763	Water - Chemical Injector		Chlorinator for Hall Public Works Garage	Chlorine	2008	20	12	8	$7,576	$3,030	$4,545	$7,576	6		6	Average	Possible	Major	H	3	2026	10	2028	2027	2047	11						0	2028	2026	2046	10
3058	Water - Chemical Injector		Online Chlorine Analyzer	Chlorine	2006	10	0	10	$3,489	$3,489	$0	$3,489	0	5	5	Average	Possible	Major	H	3	2015	10	2016	2017	2028	1	$5,000	2021			10	30	2031	2031	2041	15
3059	Water - Chemical Injector		Prominent Chemical Feed Pump	Chlorine	2008	10	2	8	$4,807	$3,846	$961	$4,807	2	5	5	Average	Possible	Major	H	3	2017	10	2018	2018	2028	2	$3,000	2021			10	10	2031	2031	2041	15
4031	Water - Network Structure		Pumphouse Upgrades	Pump Station	1972	50	6	44	$11,334	$9,974	$1,360	$11,334	1	5	5	Average	Possible	Major	H	3	2017	10	2022	2020	2070	4						20	2032	2017	2067	1
4032	Water - Network Structure		Pumphouse Upgrades	Pump Station	1980	50	14	36	$22,548	$16,235	$6,313	$22,548	3	5	5	Average	Possible	Major	H	3	2025	10	2030	2028	2078	12						5	2033	2025	2075	9
3233	Water - Pump		Replacement Pump	Unknown / Generic	2012	10	6	4	$6,469	$2,588	$3,882	$6,469	6		6	Average	Possible	Major	H	3	2021	10	2022	2022	2032	6						0	2022	2021	2031	5
4045	Water - Scada Sensor		RACO Alarm System for Pumphouse	SCADA Sensor	2006	50	40	10	$10,200	$2,040	$8,160	$10,200	8		8	Good	Unlikely	Major	M	2	2051	10	2056	2056	2106	40						0	2056	2056	2106	40
5000	Water - Water Structure		Water Tank	Storage Basin	2013	10	7	3	$12,759	$3,828	$8,931	$12,759	7		7	Good	Unlikely	Major	M	2	2022	10	2023	2023	2033	7	$5,000	2019	$5,000	2026	11	0	2037	2037	2047	21
			Sub-Total						$136,070	$101,917	$34,153	$394,182			#REF!	#REF!																				

East Garafraxa
Water - Hydrant Inventory

Current Leveles of Service
Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service
Replacement/Improvement Year Based on Expected Levels Service

FIXED ASSET ID	Subtype	Asset Name	Asset Type	Road GIS ID	Road Name	Road From	Road To	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
										6	**44**	**$ 7,367**	**$ 6,483**	**$ 884**	**$ 25,500**			**5.0**					**3**								**$ -**							
3138	Water - Hydrant	Fire Hydrant - Grand Cresent, Marsville			Grand Cresent			1972	50	6	44	$2,456	$2,161	$295	$8,500	1	5	5	Average	Possible	Major	H	3	2017	10	2022	2017	2067	1					30	2037	2020	2070	4
3140	Water - Hydrant	Fire Hydrant - Victoria Boulevard, Marsville			Victoria Boulevard			1972	50	6	44	$2,456	$2,161	$295	$8,500	1	5	5	Average	Possible	Major	H	3	2017	10	2022	2017	2067	1					30	2037	2020	2070	4
3142	Water - Hydrant	Fire Hydrant -Maple Street, Marsville			Maple Street			1972	50	6	44	$2,456	$2,161	$295	$8,500	1	5	5	Average	Possible	Major	H	3	2017	10	2022	2017	2067	1					30	2037	2020	2070	4

East Garafraxa
Water - Well Inventory

Current Leveles of Service
Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service
Replacement/Improvement Year Based on Expected Levels Service

FIXED ASSET ID	Subtype	Asset Name	Asset Type	Road GIS ID	Road Name	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
								19	**14**	**$ 93,142**	**$ 29,438**	**$ 63,703**	**$ 230,063**			**5.7**					**2**								**$ 12,000**							
3050	Water - Well	Marsville Production Well	Municipal Production Well			2001	25	10	15	$6,539	$3,924	$2,616	$75,000	4	5	5	Average	Possible	Moderate	M	2	2024	10	2027	2027	2053	11		$12,000	2021	25	5	2046	2046	2071	30
4033	Water - Well	Marsville Well Upgrades re: Walkerton	Municipal Production Well			2001	50	35	15	$19,368	$5,811	$13,558	$19,368	7		7	Good	Unlikely	Moderate	M	2	2046	10	2051	2051	2101	35					0	2051	2051	2101	35
4034	Water - Well	Marsville Well Upgrades re: Walkerton	Municipal Production Well			2003	50	37	13	$60,695	$15,781	$44,914	$60,695	7		7	Good	Unlikely	Moderate	M	2	2048	10	2053	2053	2103	37					0	2053	2053	2103	37
5032	Water - Well	Marsville Production Well	Municipal Production Well			2001	25	10	15	$6,539	$3,924	$2,616	$75,000	4	5	5	Average	Possible	Moderate	M	2	2024	10	2027	2027	2053	11					5	2028	2019	2044	3

East Garafraxa
Water Mains Inventory

Subtype	Street Name	Street I.D.	From	To	Asset Name	PIPE ID #	DIA (mm)	LENGTH (m)	MATERIAL	Condition based on Age	Staff Condition	Condition Used	DATE OF CONSTRUCTION	Useful Life	RSL (2016)	Age	Historical Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacment Cost	Probability of Failure (Based on Condition)	Consequence of Failure	Total Risk of Failure	Numerical Risk Rating	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then expected for age	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
												6			**56**	**44**	**$113,720**	**$50,037**	**$63,683**	**$400,000**				**3**														
Water - Pressurized Main					Distribution Main		150			6		6	1972	100	56	44	$113,720	$50,037	$63,683	$400,000	Possible	Major	H	3	2062	10	2072	2062	2162	46					0	2072	2020	2120	4

East Garafraxa
Vehicles Inventory

Fixed Asset ID	Subtype	Asset Name - Vehicles	Asset Type	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure
						10	10	$ 2,264,393	$ 1,136,155	$ 1,138,553	$ 2,945,000			7.7					1
2696	Equipment - Rolling S	1988 Champion Grader - Unit #75	1988 Champion 740 Grader 11L VIN - 127	1988	20	0	28	$146,702	$146,702	$0	$425,000	0	5	5	Average	Possible	Minor	M	2
2697	Equipment - Rolling S	2001 Champion Grader - Unit #74	2001 Champion 740 VHP Grader 11L VIN	2001	20	5	15	$266,436	$222,030	$44,406	$425,000	3	7	7	Good	Unlikely	Moderate	M	2
2698	Equipment - Rolling S	2007 Volvo Grader - Unit #73	2007 Volvo 960 Grader 7L Vin VCEOG960	2007	20	11	9	$259,362	$129,681	$129,681	Disposed 2016								
2701	Equipment - Rolling S	1996 Ford Truck - Unit #77	1996 Ford Truck - Unit #77	1995	20	0	21	$94,776	$94,776	$0	disposed 2015								
2702	Equipment - Rolling S	2005 International Truck - Unit #78	2005 International 5600 14L Truck VIN - 1	2004	20	8	12	$186,380	$139,785	$46,595	$250,000	4	7	7	Good	Unlikely	Minor	L	1
2703	Equipment - Rolling S	2001 GMC Truck - Unit #70	2001 GMC Truck - Unit #70	2001	12	0	15	$22,863	$22,863	$0	Disposed 2015								
2704	Equipment - Rolling S	2007 Ford Truck - Unit #71	2007 Ford F150 4wd 4.6L Truck - VIN - 1F	2006	12	2	10	$24,584	$24,584	$0	$35,000	2	5	5	Average	Possible	Minor	M	2
2705	Equipment - Rolling S	2008 Volvo Loader - Unit #72	2008 Volvo Loader - Unit #72	2008	20	12	8	$226,526	$100,678	$125,848	$275,000	6	9	9	Very Good	Rare	Moderate	L	1
2959	Equipment - Rolling S	Sweeper	Sweeper	2009	20	13	7	$32,940	$15,372	$17,568	$40,000	7	7	7	Good	Unlikely	Moderate	M	2
3004	Equipment - Rolling S	Excavator	Excavator	2010	20	14	6	$114,895	$38,796	$86,415	$250,000	7	7	7	Good	Unlikely	Moderate	M	2
4035	Equipment - Rolling S	2011 GMC Truck	2011 GMC Sierra Nevada 4wd 4.8L Truck	2011	12	7	5	$27,931	$8,728	$19,202	$35,000	6	8	8	Good	Unlikely	Minor	L	1
4036	Equipment - Rolling S	2013 Western Star	2013 Western Star 4700 SBA 13L VIN - 5K	2012	20	16	4	$211,087	$52,772	$158,315	$250,000	8	9	9	Very Good	Rare	Minor	L	1
4047	Equipment - Rolling S	2009 Volvo Truck - Unit 79	2009 Volvo VHD 13L Vin - 4V5KC9EH99N2	2008	20	12	8	$196,173	$98,087	$98,087	$250,000	6	8	8	Good	Unlikely	Minor	L	1
5039	Equipment - Rolling S	2015 WESTERN STAR	2016 WESTERN STAR	2014	20	18	2	$226,033	$28,254	$197,779	$250,000	9	10	10	Very Good	Rare	Minor	L	1
5088	Equipment - Rolling S	2015 Sierra 1500 GMC Pickup Truck	Sierra 1500 GMC Pickup Truck	2015	12	11	1	$31,707	$3,171	$28,537	$35,000	9	10	10	Very Good	Rare	Minor	L	1
	Equipment - Rolling S	2012 Volvo 976 - Grader	2012 Volvo 976 - Grader	2016	14	14	0	$196,000	$9,878	$186,122	$425,000	10	9	9	Very Good	Rare	Moderate	L	1

Current Leveles of Service

Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service

Replacement/Improvement Year Based on Expected Levels Service

Fixed Asset ID	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	2nd Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	2nd Rehab (Cost 2016)	Year for Rehab	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	2nd Subsequent Replacement Year	Revised Remaining Useful Life
									$ 80,000										
2696	2006	10	2008	2017	2046	2075	1								0	2017	2033	2049	1
2697	2019	10	2021	2021	2041	2061	5								2021	2026	2046	2066	10
2698																			
2701																			
2702	2022	10	2024	2024	2044	2064	8								2024	2022	2042	2062	6
2703																			
2704	2017	10	2018	2018	2030	2042	2								2018	2019	2031	2043	3
2705	2026	10	2028	2028	2048	2068	12		$40,000	2021	$40,000	2026	5		2031	2031	2051	2071	15
2959	2027	10	2029	2029	2049	2069	13								2029	2029	2049	2069	13
3004	2028	10	2030	2030	2050	2070	14								2030	2021	2041	2061	5
4035	2022	10	2023	2023	2035	2047	7								2023	2023	2035	2047	7
4036	2030	10	2032	2032	2052	2072	16								2032	2032	2052	2072	16
4047	2026	10	2028	2028	2048	2068	12								2028	2028	2048	2068	12
5039	2032	10	2034	2034	2054	2074	18								2034	2024	2035	2046	8
5088	2026	10	2027	2027	2039	2051	11								2027	2027	2032	2037	11
	2029	10	2030	2030	2044	2058	14		$40,000	2026	$40,000	2031	5		2036	2036	2050	2064	20

East Grafraxa
Equipment Inventory

FIXED ASSET ID	Subtype	Asset Name - Equipment	Asset Type	Make	Model	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based on Age	Condition (from Staff Assessment)	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimal	Current Levels of Service Is benefi	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life	Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over	Revised Levels Service Replacement	Year Replacement Applying Risk Score - or	Subsequent Replacement Year	2nd Subsequent Replacement Year	Revised Remaining Useful Life
								10	13	$ 133,570	$ 66,627	$ 66,943	$ 194,102			7.7					1							$ 10,000								
2752	Equipment - Equi	Mig Welder Public Works Garage	Large Tools			2007	15	6	9	$3,258	$1,955	$1,303	$5,000	4	8	8	Good	Unlikely	Insignificant	L	1	2021	7	2022	2022	2037	6					2022	2022	2037	2052	6
2753	Equipment - Equi	Arc Welder Public Works Garage	Large Tools			1980	15	0	36	$1,432	$1,432	$0	Not to be Replaced																							
2754	Equipment - Equi	Tools Public Works Garage	Small Tools			2000	5	0	16	$8,456	$8,456	$0	$10,000	0	8	8	Good	Unlikely	Insignificant	L	1	2005	9	2005	2017	2034	1					2015	2037	2042	2047	21
2756	Equipment - Equi	Pressure Washer Public Works Garage	Large Tools			2006	15	5	10	$5,500	$3,667	$1,833	$7,500	3	5	5	Average	Possible	Insignificant	L	1	2020	10	2022	2022	2038	6					2022	2023	2038	2053	7
2759	Equipment - Equi	Gravel Compactors - 3 units Public Works G	Large Tools			2007	20	11	9	$49,155	$22,120	$27,035	$60,000	6	8	8	Good	Unlikely	Insignificant	L	1	2025	10	2027	2027	2047	11					2027	2024	2044	2064	8
2765	Equipment - Equi	V-Plows - 3 units Public Works Garage	Plowing Equipment			1976	40	0	40	$6,685	$6,685	$0	$30,000	0	7	7	Good	Unlikely	Insignificant	L	1	2012	10	2016	2017	2058	1	$10,000	2017	10		2027	2027	2067	2107	11
3064	Equipment - Equi	Tri Axle Trailer	Trailers			2010	20	14	6	$27,972	$9,324	$18,648	$35,000	7	8	8	Good	Unlikely	Insignificant	L	1	2028	10	2030	2030	2050	14					2030	2030	2050	2070	14
4037	Equipment - Equi	Laser Level	Other Equipment			2007	15	6	9	$2,063	$1,238	$825	$2,500	4	8	8	Good	Unlikely	Insignificant	L	1	2021	10	2023	2023	2039	7					2023	2023	2038	2053	7
4038	Equipment - Equi	Shank Ripper for Grader 74	Grading Equipment			2012	10	6	4	$8,062	$3,225	$4,837	$20,000	6	9	9	Very Good	Rare	Insignificant	L	1	2021	10	2022	2022	2032	6					2022	2022	2032	2042	6
5089	Equipment - Equi	Tilt Ditch Bucket	Other Equipment			2015	40	39	1	$9,158	$229	$8,929	$10,000	10	9	9	Very Good	Rare	Insignificant	L	1	2051	10	2055	2055	2095	39					2055	2055	2095	2135	39
2914		CHAIRS - MARSVILLE COMMUNITY CENTRE				2009	25	18	7	$4,806	$3,364	$1,442	$5,000	7	6	6	Average	Possible	Insignificant	L	1	2032	10	2035	2035	2061	19					2035	2035	2060	2085	19
		Tables - Marsville Community Centre				2009	25	18	7	$2,400	$672	$1,728	$3,500	7	7	7	Good	Unlikely	Insignificant	L	1	2032	10	2035	2035	2061	19					2035	2035	2060	2085	19
4046	4046	DIRECTOR OF PW - WORKSTATION				2002	25	11	14	$4,020	$4,020	$0	$5,000	4	5	5	Average	Possible	Insignificant	L	1	2025	10	2028	2028	2054	12					2028	2028	2053	2078	12
5038	Other - Support	Chairs for Council Chambers	Unknown			2014	10	2	2	$602	$241	$361	$602	2		2	Very Poor	Almost Certain	Insignificant	M	2	2023	10	2024	2024	2034	8					2024	2024	2034	2044	8

Current Leveles of Service
Replacement/Improvement Year Based on Current Levels of Service

Expected Levels of Service
Replacement/Improvement Year Based on Expected Levels Service

East Grafraxa
Software Inventory

Current Leveles of Service

Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service

Replacement/Improvement Year Based on Expected Levels Service

FIXED ASSET ID	Subtype	Asset Name	Asset Type	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	2nd Subsequent Replacement Year	3rd Subsequent Replacement Year	4th Subsequent Replacement Year	5th Subsequent Replacement Year	Revised Remaining Useful Life
						1	8	$ 215,491	$ 203,806	$ 11,686	$ 53,451			5.7				0	2								$ -											
3009	Other - Support	Council Laptops	Computer Hardware	2010	4	0	6	$6,903	$6,903	$0	$6,900	0	5	5	Average	Possible	Minor	M	2	2014		2014	2017	2024	1					40	2016	2017	2022	2027	2032	2037	2042	1
3053	Other - Support	GIS Software - Year 1 Billing	Computer Software	2001	5	0	15	$12,512	$12,512	$0	Not to be Replaced																											
3054	Other - Support	GIS Software - Year 2 Billing	Computer Software	2002	5	0	14	$10,125	$10,125	$0	Not to be Replaced																											
3055	Other - Support	Geosmart - Colour Printer	Computer Hardware	2003	5	0	13	$3,441	$3,441	$0	$3,441	0	5	5	Average	Possible	Minor	M	2	2008		2008	2017	2031	1					40	2010	2020	2028	2033	2038	2043	2048	4
3056	Other - Support	Geosmart	Unknown	2004	5	0	12	$124,255	$124,255	$0	Not to be Replaced																											
3057	Other - Support	GIS Software	Computer Software	2005	5	0	11	$2,134	$2,134	$0	$2,134	0	5	5	Average	Possible	Minor	M	2	2010		2010	2017	2029	1					40	2012	2017	2022	2026	2031	2036	2041	1
4039	Other - Support	GIS Mapping	Computer Software	2001	5	0	15	$3,757	$3,757	$0	Not to be Replaced																											
4040	Other - Support	GIS Mapping	Computer Software	2002	5	0	14	$13,816	$13,816	$0	$13,816	0	5	5	Average	Possible	Minor	M	2	2007		2007	2017	2032	1					40	2009	2017	2022	2027	2032	2037	2042	1
4041	Other - Support	Geosmart - Doc Management Software	Computer Software	2004	5	0	12	$11,455	$11,455	$0	Not to be Replaced																											
4042	Other - Support	Director of PW - GPS Radio System	Cell Phone/Pager	2004	5	0	12	$9,699	$9,699	$0	$9,699	0	7	7	Good	Unlikely	Minor	L	1	2009		2009	2017	2030	1					60	2012	2017	2022	2027	2032	2037	2042	1
5037	Other - Support	Workstation	Unknown	2014	10	8	2	$2,692	$538	$2,153	$2,692	8		8	Good	Unlikely	Minor	L	1	2023		2023	2023	2033	7					0	2023	2023	2028	2033	2038	2043	2048	7
5040	Other - Support	Computer Software	Computer Software	2014	4	2	2	$11,969	$4,788	$7,182	$11,969	5		5	Average	Possible	Minor	M	2	2018		2018	2018	2022	2					0	2018	2018	2023	2028	2033	2038	2043	2
5146	Other - Support	Record Management Software	Computer Software	2015	10	9	1	$2,013	$201	$1,812	$2,000	9		9	Very Good	Rare	Minor	L	1	2024		2024	2024	2034	8					0	2024	2024	2029	2034	2039	2044	2049	8
5147	Other - Support	Christine - Computer	Computer Hardware	2015	3	2	1	$719	$180	$539	$800	7		7	Good	Unlikely	Minor	L	1	2018		2018	2018	2021	2					0	2018	2018	2023	2028	2033	2038	2043	2

East Grafraxa
Facilities Components Inventory

Fixed Asset #	Subtype	Location	Asset Name - Facility Components	Description	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization System	2015 Net Book Value System	Replacement Cost	Condition Based On Useful Life	Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life	Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	2nd Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current +	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
							28	39	$ 521,477	$ 298,863	$ 222,613	$ 1,879,000			6.5					2							$ 12,000									
			Marsville Community Centre																																	
6	Facilities - Bu	Community Cent	Marsville Community Centre - Openned in 1948		1948	75	7	68	$74,212	$54,866	$19,346	$500,000	1	5	5	Average	Possible	Moderate	M	2	2016	10	2024	2024	2100	8					30	2047	2047	2122	31
2915	Facilities - No	Marsville Community Centre	Marsville Hall - New Roof	Roof Coverings	2009	40	33	7	$9,755	$1,707	$8,048	$12,000	8	8	8	Good	Unlikely	Major	M	2	2045	10	2049	2049	2089	33					0	2049	2049	2089	33
2916	Facilities - No	Marsville Community Centre	Furnace - Marsville Community	Heat Generating Systems	1960	20	0	56	$401	$401	$0	$3,000	0	4	4	Poor	Likely	Moderate	H	3	1978	10	1980	2017	2074	1					30	1986	2017	2037	1
2918	Facilities - No	Marsville Community Centre	Septic Tank - Marsville Commun	Sanitary Waste	1970	40	0	46	$699	$699	$0	$3,000	0	4	4	Poor	Likely	Minor	M	2	2006	10	2010	2017	2064	1					30	2022	2022	2062	6
			Sub-Total				**8**	**66**	**$85,067**	**$57,673**	**$27,394**	**$518,000**			**5.1**					**2**							**$0**									
			Public Works Garage																																	
7	Facilities - Bu	Garage	Public Works Garage	1991 building with improvement made in 2006	1991	100	75	25	$158,261	$113,933	$44,328	$850,000	8	8	8	Good	Unlikely	Major	M	2	2081	10	2091	2091	2191	75						2091	2091	2191	75
			Public Works Well	Well that feeds Garage and Marsville Hall	1980	50	14	36	$2,148	$2,148	$0	$15,000	3	5	5	Average	Possible	Moderate	M	2	2025	10	2030	2030	2080	14						2030	2030	2080	14
2762	Facilities - No	Public Works Garage	NL4 Oil Furnace Public Works G	Heat Generating Systems	2004	20	8	12	$5,719	$3,432	$2,288	Disposal																								
2919	Facilities - No	Public Works Garage	Weeping Bed - Public Works Ga	Sanitary Waste	1969	40	0	47	$3,380	$3,380	$0	$20,000	0	4	4	Poor	Likely	Moderate	H	3	2005	10	2009	2017	2065	1					30	2021	2017	2057	1
5053	Facilities - No	Public Works Garage	RADIANT HEATER PUBLIC WORK	Heat Generating Systems	2014	20	18	2	$8,359	$836	$7,523	$10,000	9	9	9	Very Good	Rare	Major	M	2	2032	10	2034	2034	2054	18					0	2034	2025	2045	9
			Public Works Propane Furnace		2015	20	19	1	$ 8,000.00	$ -	$ 8,000.00	$ 8,000.00	10	10	10	Very Good	Rare	Moderate	L	1	2033	10	2035	2035	2055	19					0	2035	2035	2055	19
2761	Equipment -	Generator Public	Potable Diesel Generator		2002	15	1	14	$2,670	$2,492	$178	$3,000	1	7	7	Good	Unlikely	Minor	L	1	2016	10	2018	2018	2034	2	$12,000	2017			15	40	2032	2032	2047	16
			OilWater Separator		1981	50	25	25	$4,802	$2,401	$2,401	$10,000	5		5	Average	Possible	Moderate	M	2	2036	10	2041	2041	2091	25						0	2041	2041	2091	25
			Propane Generator		2017	25	26	0	$10,000	$0	$10,000	$10,000	10		10	Very Good	Rare	Moderate	L	1	2040	10	2043	2043	2069	27					0	2043	2043	2068	27
			Sub-Total				**70**	**25**	**$203,340**	**$128,622**	**$74,717**	**$926,000**			**7.9**					**2**	**2076**						**$0.00**									
			Sand Domes																																	
8	Facilities - Bu	Sand/Salt Dome	Salt Dome	Sand/Salt Dome	1987	75	46	29	$171,439	$82,634	$88,804	$250,000	6	8	8	Good	Unlikely	Moderate	M	2	2055		2055	2055	2130	39					5	2059	2059	2134	43
			Salt Dome - roof	Salt Dome - roof	2010	25	19	6	$ 40,000.00	$9,600	$30,400	$ 45,000.00	8	8	8	Good	Unlikely	Moderate	M	2	2033		2033	2033	2058	17					0	2033	2033	2058	17
			Sub-Total				**33**	**18**	**$211,439**	**$92,234**	**$119,204**	**$295,000**			**8.0**					**2**							**$0**									
			Gravel Pit Storage Shed																																	
4001	Facilities - Bu	Gravel Pit	Storage Shed at Gravel Pit		1969	50	3	47	$21,632	$20,334	$1,298	$140,000	1	5	5	Average	Possible	Moderate	M	2	2014		2014	2017	2067	1					20	2024	2024	2074	8
			Sub-Total				**3**	**47**	**$21,632**	**$20,334**	**$1,298**	**$140,000**			**5.0**					**2**							**$0**									

Current Leveles of Service
Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service
Replacement/Improvement Year Based on Expected Levels Service

East Grafraxa
Land Improvements

																				Current Leveles of Service									Expected Levels of Service					
																				Replacement/Improvement Year Based on Current Levels Service									Replacement/Improvement Year Based on Expected Levels Service					
FIXED ASSET ID	Subtype	Asset Name	Asset Type	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Note	Expected Levels of Service % benefit over Current + Condition better then	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
						18	10	$ 473,927	$ 180,817	$ 293,111	$ 515,750			8.2					1							$ -										
2706	Facilities - Line	Tot Haven Park fencing	Fence	2005	25	14	11	$4,229	$1,861	$2,368	$4,500	6	8	8	Good	Unlikely	Insignificant	L	1	2028	10	2031	2031	2057	15					10	2034	2034	2059	18
2707	Facilities - Line	Orton Park back stop	Fence	2005	25	14	11	$11,392	$5,012	$6,379	Dispoded																									
2708	Facilities - Line	Garfraxa Woods back stop	Fence	2005	25	14	11	$11,392	$5,012	$6,379	Dispoded																									
2709	Facilities - Line	Brookhaven back stop	Fence	2005	25	14	11	$11,392	$5,012	$6,379	$12,000	6	8	8	Good	Unlikely	Insignificant	L	1	2028	10	2031	2031	2057	15					10	2034	2034	2059	18
2711	Facilities - Line	Brookhaven park fencing - protection from Storm Water	Fence	2005	25	14	11	$3,282	$1,444	$1,838	$4,000	6	8	8	Good	Unlikely	Insignificant	L	1	2028	10	2031	2031	2057	15					10	2034	2034	2059	18
2712	Facilities - Line	Brookhaven park fencing - around Basketball Court	Fence	2005	25	14	11	$3,900	$1,716	$2,184	$5,000	6	8	8	Good	Unlikely	Insignificant	L	1	2028	10	2031	2031	2057	15					10	2034	2034	2059	18
20	Facilities - Buil	Playground - Rayburn Meadows	Playground	2003	15	2	13	$41,274	$35,771	$5,503	$45,000	1	7	7	Good	Unlikely	Insignificant	L	1	2017	10	2019	2019	2035	3					50	2027	2027	2042	11
23	Facilities - Buil	Providence Cemetery - Property 313600	Cemetery	1869	50	0	147	$2,939	$2,939	$0	Not to be replaced																									
2713	Facilities - Buil	Tot Haven Playground	Playground	2005	15	4	11	$23,733	$17,404	$6,329	$25,000	3	7	7	Good	Unlikely	Insignificant	L	1	2019	10	2021	2021	2037	5					30	2026	2026	2041	10
2714	Facilities - Buil	Orton Park Driveway / Parking	Parking Lot	1996	30	10	20	$2,926	$1,951	$975	Disposed in 2013																									
2715	Facilities - Buil	Orton Park Parking Lot	Parking Lot	1996	30	10	20	$16,979	$11,319	$5,660	Disposed in 2013																									
2716	Facilities - Buil	Orton Village Park Storage Building	Storage Building	1996	30	10	20	$3,912	$2,608	$1,304	Disposed																									
2717	Facilities - Buil	Brookhaven Park Parking Lot	Parking Lot	2005	30	19	11	$12,604	$4,622	$7,983	$15,000	6	9	9	Very Good	Rare	Insignificant	L	1	2032	10	2035	2035	2065	19					20	2041	2041	2071	25
2718	Facilities - Buil	Brookhaven Basketball Court	Playground	2005	30	19	11	$8,751	$3,209	$5,543	$40,000	6	8	8	Good	Unlikely	Insignificant	L	1	2032	10	2035	2035	2065	19					10	2038	2038	2068	22
2719	Facilities - Buil	Brookhaven Playground	Playground	2005	15	4	11	$42,719	$31,327	$11,392	$45,000	3	8	8	Good	Unlikely	Insignificant	L	1	2019	10	2021	2021	2037	5					40	2027	2027	2042	11
2721	Facilities - Buil	Basketball Court - Marsville Park	Playground	1972	30	0	44	$3,178	$3,178	$0	$40,000	0	6	6	Average	Possible	Insignificant	L	1	1999	10	2002	2017	2062	1					50	2017	2017	2047	1
2722	Facilities - Buil	Playground - Marsville Park	Playground	1972	15	0	44	$6,064	$6,064	$0	Disposed																									
2920	Facilities - Buil	Parking Lot - Marsville Community Centre	Parking Lot	2006	30	20	10	$7,929	$2,643	$5,286	$10,000	7	7	7	Good	Unlikely	Insignificant	L	1	2033	10	2036	2036	2066	20					0	2036	2036	2066	20
2921	Facilities - Buil	Parking Lot - Marsville Community Centre	Parking Lot	2006	30	20	10	$31,832	$10,518	$21,313	$35,000	7	7	7	Good	Unlikely	Insignificant	L	1	2033	10	2036	2036	2066	20					0	2036	2036	2066	20
2944	Facilities - Buil	Cemetery - 12th Line - roll number 214100	Cemetery	1869	50	0	147	$3,025	$3,025	$0	Not to be replaced																									
4005	Facilities - Buil	Marsville Park - Playground	Playground	2010	15	9	6	$23,794	$9,518	$14,277	$25,000	6	8	8	Good	Unlikely	Insignificant	L	1	2024	10	2026	2026	2042	10					10	2028	2028	2043	12
5090	Facilities - Buil	Orton Village Park Pavilon	Picnic Shelter	2015	40	39	1	$106,645	$2,666	$103,979	$110,000	10	10	10	Very Good	Rare	Insignificant	L	1	2051	10	2055	2055	2095	39					0	2055	2055	2095	39
5148	Facilities - Buil	Gravel Pit - Operations Driveway	Parking Lot	2015	15	14	1	$3,053	$204	$2,849	$8,000	9	9	9	Very Good	Rare	Insignificant	L	1	2029	10	2031	2031	2047	15					0	2031	2031	2046	15
		Orton Village Park - back stop	Fence	2010	25	25	0	$15,000	$0	$15,000	$15,000	10	8	8	Good	Unlikely	Insignificant	L	1	2039	10	2042	2042	2068	26					0	2042	2042	2067	26
		Orton Village Park Parking	Parking Lot	2013	30	27	3	$8,832	$883.20	$7,949	$9,000	9		9	Very Good	Rare	Insignificant	L	1	2040	10	2043	2043	2073	27					0	2043	2043	2073	27
		Orton Village Playground	Playground	2013	15	12	3	$29,439	$5,888	$23,551	$30,000	8		8	Good	Unlikely	Insignificant	L	1	2027	10	2029	2029	2045	13					0	2029	2029	2044	13
		Brookhaven Park Trail/Patf		2005	30	19	11	$500	$183.33	$317	$750	6		6	Average	Possible	Insignificant	L	1	2032	11	2035	2035	2065	19					0	2035	2035	2065	19
		Woodland Walkway (Asphalt) approx 125 rr		2005	40	29	11	$1,840	$506.00	$1,334	$2,500	7		7	Good	Unlikely	Insignificant	L	1	2041	12	2046	2046	2087	30					0	2046	2046	2086	30
		Woodland Walkway Fencing (total 250m)	Fence	2005	25	14	11	$9,850	$4,334.00	$5,516	$10,000	6		6	Average	Possible	Insignificant	L	1	2028	13	2031	2031	2057	15					0	2031	2031	2056	15
		Parking Lot Public Works Garage	Parking Lot	2016	30	30	0	$21,524	$0	$21,524	$25,000	10		10	Very Good	Rare	Insignificant	L	1	2043	14	2047	2047	2078	31					0	2047	2047	2077	31

East Grafraxa
Roads - Street Light Inventory

Fixed Asset #	Subtype	Asset Name	Asset Type	Street ID	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority	Probability of Failure (Based on Condition or	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Rehabiliation Year	Rehabiliation Cost (2016)	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or	Subsequent Replacement Year	Revised Remaining Useful Life
							15	10	$ 67,835	$ 27,902	$ 39,934	$ 82,078			7.8					1									$ 9,000							
2238	Roads - Street Light	Street Light - Rayburn Meadows			2004	30	18	12	$2,795	$1,342	$1,454	$3,500	6	7	7	Good	Unlikely	Minor	L	1	2031	10	2034	2034	2064	18		2029	500	20	0	2049	2049	2079	33
2239	Roads - Street Light	Street Light - Rayburn Meadows			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2030	500	20	0	2050	2050	2075	34
2240	Roads - Street Light	Street Light - Rayburn Meadows			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2031	500	20	0	2051	2051	2076	35
2241	Roads - Street Light	Street Light - Rayburn Meadows @ Y intersection			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2032	500	20	0	2052	2052	2077	36
2242	Roads - Street Light	Street Light - Rayburn Meadows / A Line			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2033	500	20	0	2053	2053	2078	37
2243	Roads - Street Light	Street Light - Woodland Heights - Woodland Dr. / B Line			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2034	500	20	0	2054	2054	2079	38
2244	Roads - Street Light	Street Light - Woodland Heights - Woodland Dr.			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2035	500	20	0	2055	2055	2080	39
2245	Roads - Street Light	Street Light - Woodland Heights - Woodland Dr.			2004	25	13	12	$2,795	$1,342	$1,454	$3,500	5	7	7	Good	Unlikely	Minor	L	1	2027	10	2030	2030	2056	14		2036	500	20	0	2056	2056	2081	40
2897	Roads - Street Light	Street Light - Marsville - Maple St			1972	25	0	44	$567	$567	$0	Disposed																							
2898	Roads - Street Light	Street Light - Marsville - Maple St			1972	25	0	44	$567	$567	$0	Disposed																							
2899	Roads - Street Light	Street Light - Marsville - Grand Crescent			1972	25	0	44	$567	$567	$0	Disposed																							
2900	Roads - Street Light	Street Light - Marsville - Victoria Boulevard			1972	25	0	44	$567	$567	$0	Disposed																							
2901	Roads - Street Light	Street Light - Marsville - Victoria Boulevard			1972	25	0	44	$567	$567	$0	Disposed																							
2902	Roads - Street Light	Street Light - Marsville - Victoria Boulevard			1972	25	0	44	$567	$567	$0	Disposed																							
2903	Roads - Street Light	Street Light - Marsville - Victoria Boulevard			1972	25	0	44	$567	$567	$0	Disposed																							
2904	Roads - Street Light	Street Light - Marsville - Grand Crescent			1972	25	0	44	$567	$567	$0	Disposed																							
2912	Roads - Street Light	Street Light - 46 Old Carriage Road / A Line			2009	25	18	7	$4,895	$1,371	$3,524	$5,000	7		7	Good	Unlikely	Minor	L	1	2032	10	2035	2035	2061	19					0	2035	2035	2060	19
2913	Roads - Street Light	Street Light - 47101 A Line / East Grafaraxa / Erin TL			2009	25	18	7	$4,895	$1,371	$3,524	$5,000	7		7	Good	Unlikely	Minor	L	1	2032	10	2035	2035	2061	19					0	2035	2035	2060	19
5092	Roads - Street Light	Street Light - Marsville - Maple St @ County Rd 3			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5093	Roads - Street Light	Street Light - Marsville - Maple St @ Victoria			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5094	Roads - Street Light	Street Light - Marsville - Grand Crescent @ County Rd 3			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5095	Roads - Street Light	Street Light - Marsville - Victoria Boulevard east of Drainage			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5096	Roads - Street Light	Street Light - Marsville - Victoria Boulevard @ drainage			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5097	Roads - Street Light	Street Light - Marsville - Victoria Boulevard west of drainage			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5098	Roads - Street Light	Street Light - Marsville - Victoria Boulevard @ Grand Cresent			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5099	Roads - Street Light	Street Light - Marsville - Grand Cresent @ Park			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5100	Roads - Street Light	Street Light - Marsville - County Rd 3 south side @ east of Grand Cresent			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5101	Roads - Street Light	Street Light - Marsville - County Rd 3 south side @ west end of old Convience store of Grand Crese			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5102	Roads - Street Light	Street Light - Marsville - 13th Line south of County Rd 3 @ Town Hall			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5103	Roads - Street Light	Street Light - Marsville - 13th Line northwest corner @ County Rd 3			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
5104	Roads - Street Light	Street Light - Marsville - County Rd 3 south side @ across from church			2015	25	24	1	$698	$14	$684	$698	10		10	Very Good	Rare	Minor	L	1	2038	10	2041	2041	2067	25					0	2041	2041	2066	25
2905	Street Light	1 BROOKHAVEN CRES			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2030	$500	20	0	2050	2050	2075	34
2906	Street Light	68 BROOKHAVEN CRES			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2031	$500	20	0	2051	2051	2076	35
2907	Street Light	61 BROOKHAVEN CRES			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2032	$500	20	0	2052	2052	2077	36
2908	Street Light	52 BROOKHAVEN CRES			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2033	$500	20	0	2053	2053	2078	37
2909	Street Light	22 BROOKHAVEN CRES			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2034	$500	20	0	2054	2054	2079	38
2910	Street Light	18 BROOKHAVEN CRES.			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2035	$500	20	0	2055	2055	2080	39
2911	Street Light	44 BROOKHAVEN CRES			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2036	$500	20	0	2056	2056	2081	40
5149	Street Light	BROOKHAVEN PARK			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2037	$500	20	0	2057	2057	2082	41
5150	Street Light	BROOKHAVEN PARK			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2038	$500	20	0	2058	2058	2083	42
5151	Street Light	30 BROOKHAVEN CRES.			2005	25	14	11	$2,207	$971.08	$1,236	$3,500	6	8	8	Very Good	Rare	Minor	L	1	2028	10	2031	2031	2057	15		2039	$500	20	0	2059	2059	2084	43

Current Leveles of Service
Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service
Replacement/Improvement Year Based on Expected Levels Service

Kent Carrithers
Roads - Sign Inventory

Asset Group	Subtype	Asset Name	Asset Type	Street ID	Street Location of Sewage	Sign Type	Sign Size (cm)	Sign Shape	Sign Colour	Reflectivity (2018)	Comments	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2020 Inflation Adjustment Amortization System	2020 Net Book Value System	Replacement Cost	Condition Score (% Useful Life)	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Failure Mode (Based on Engineering Judgement)	Consequence of Failure	Risk at Failure	Numerical Value of Risk of Failure	Replacement Cost Adj. to Historical Environment	Current Level of Service To Benefit	Required Level of Service Consequence Year	Year Replacement Exploring Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life	Rehabilitation Year	Rehab/Salvage Cost (2020$)	Extended Life Treatment due for Retirement	Extended Life Treatment Year	Required Level of Service Consequence Year	Year Replacement Exploring Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
1001	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - 90 Curve			Checkerboards						2017	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1002	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - 90m Line			Checkerboards						2004	15	6	10	$247	$247	$82	$247	40	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1003	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - 120m Line			Checkerboards						2004	15	6	10	$247	$247	$82	$247	40	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1004	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - 180m Line			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1005	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - 240m Line			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1006	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - Ivens Ridge			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1007	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - Offroad			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1008	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1009	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1010	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1011	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - Winslow Church(R) Reminder			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1012	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - Winslow Church(R) Reminder			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1013	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - Winslow Church(R) Reminder			Checkerboards						2007	15	9	7	$247	$247	$165	$247	60	4	4	4	Average	Possible	Major	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1014	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1015	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1016	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1017	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1018	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1019	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1020	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1021	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1022	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1023	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1024	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1025	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1026	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1027	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1028	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1029	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1030	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1031	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1032	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1033	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1034	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1035	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1036	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1037	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1038	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1039	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1040	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1041	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1042	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1043	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1044	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1045	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1046	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1047	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1048	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1049	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1050	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1051	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1052	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1053	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1054	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1055	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1056	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1057	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1058	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1059	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1060	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1061	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1062	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1063	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1064	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1065	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1066	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1067	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1068	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1069	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1070	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1071	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1072	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1073	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1074	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1075	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1076	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1077	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1078	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1079	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1080	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1081	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1082	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1083	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1084	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037	2037	16					2041	2037	2037	16
1085	Roads - Sign	Checkerboards	Checkerboards - Warning Sign - East Eversheve (Type 7b			Checkerboards						2012	15	12	3	$247	$247	$247	$247	80	4	4	4	Average	Possible	Minor	M	2	2021.1	12	2041	2037

East Garafraxa
Roads - Culvert Inventory

Fixed Asset #	Map Link	Sub type #	Culvert Map Link ID	Street Name	Address	From	To	Asset Name / Description	Height mm	Width mm	Length (m)	Material	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Condition from Town	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life	Proposed Rehabilitation Cost (2015 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better than expected for	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
														0	18	28	$279,905	$96,465	$183,440	$501,852			4.7					2						$0								
41	Roads - Culvert					Culvert Corrugated Steel nr. Victoria Boulevard		NULL	NULL	NULL	NULL	1972	40	0	44	$ 290	$ 290	$ -	$ 1,537	0	5	5	Average	Possible	Moderate	M	2	2008	10	2012	2017	2062	1				30	2024	2024	2064	8
42	Roads - Culvert					Culvert Corrugated Steel nr. Victoria Boulevard		NULL	NULL	NULL	NULL	1972	40	0	44	$ 289	$ 289	$ -	$ 1,532	0	5	5	Average	Possible	Moderate	M	2	2008	10	2012	2017	2062	1				30	2024	2024	2064	8
55	Roads - Culvert					Culvert Corrugated Steel - Maple St.		NULL	NULL	NULL	NULL	1972	40	0	44	$ 305	$ 305	$ -	$ 1,613	0	5	5	Average	Possible	Moderate	M	2	2008	10	2012	2017	2062	1				30	2024	2024	2064	8
69	Roads - Culvert					Culvert Corrugated Steel - Grandview Crescent		NULL	NULL	NULL	NULL	1972	40	0	44	$ 318	$ 318	$ -	$ 1,682	0	5	5	Average	Possible	Moderate	M	2	2008	10	2012	2017	2062	1				30	2024	2024	2064	8
70	Roads - Culvert					Culvert Corrugated Steel - 15th SR / 12 Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 283	$ 283	$ -	$ 1,503	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
80	Roads - Culvert					Culvert Corrugated Steel - 11th Line / East Garafraxa TL		NULL	NULL	NULL	NULL	1960	40	0	56	$ 165	$ 165	$ -	$ 1,412	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
83	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 182	$ 182	$ -	$ 1,353	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
84	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 187	$ 187	$ -	Diapraised																							
87	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 169	$ 169	$ -	$ 1,208	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
92	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 154	$ 154	$ -	$ 1,152	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
93	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 207	$ 207	$ -	$ 1,253	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
95	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 203	$ 203	$ -	$ 1,522	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
98	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 209	$ 209	$ -	$ 1,598	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
105	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2003	40	24	16	$ 1,270	$ 877	$ 393	$ 1,502	6	5	5	Average	Possible	Moderate	M	2	2035	10	2040	2040	2080	24				0	2040	2040	2080	24
109	Roads - Culvert					Culvert Corrugated Steel - 11th Line - 15th SR		NULL	NULL	NULL	NULL	2010	40	34	6	$ 4,021	$ 324	$ 3,697	$ 4,600	34	5	5	Average	Possible	Moderate	M	2	2046	10	2050	2050	2090	34				0	2050	2050	2090	34
110	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 169	$ 169	$ -	$ 1,403	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
112	Roads - Culvert					Culvert Corrugated Steel - 11th Line south of County Rd 109		NULL	NULL	NULL	NULL	2010	40	34	6	$ 4,021	$ 324	$ 3,697	$ 4,600	34	5	5	Average	Possible	Moderate	M	2	2046	10	2050	2050	2090	34				0	2050	2050	2090	34
115	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 187	$ 187	$ -	$ 1,396	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
117	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 200	$ 200	$ -	$ 1,498	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
123	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 176	$ 176	$ -	$ 1,316	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
124	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 184	$ 184	$ -	$ 1,375	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
127	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 185	$ 185	$ -	$ 1,382	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
128	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 206	$ 206	$ -	$ 1,541	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
133	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 194	$ 194	$ -	$ 1,448	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
135	Roads - Culvert					Culvert Corrugated Steel - 16th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 208	$ 208	$ -	$ 1,548	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
140	Roads - Culvert					Culvert Corrugated Steel - Old Carrage Road		NULL	NULL	NULL	NULL	1960	40	0	56	$ 760	$ 760	$ -	$ 2,272	0	1	1	Very Poor	Almost Certain	Moderate	H	3	2016	10	2020	2020	2060	4				0	2020	2028	2068	12
151	Roads - Culvert					Culvert Corrugated Steel - Greenwald Crescent		NULL	NULL	NULL	NULL	1980	40	4	36	$ 639	$ 639	$ -	$ 1,690	1	5	5	Average	Possible	Moderate	M	2	2016	10	2020	2020	2060	4				20	2028	2028	2068	12
155	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 185	$ 185	$ -	$ 1,384	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
157	Roads - Culvert					Culvert Corrugated Steel - 17th Line		NULL	NULL	NULL	NULL	2007	40	31	9	$ 1,324	$ 457	$ 867	$ 1,050	8	5	5	Average	Possible	Moderate	M	2	2043	10	2047	2047	2087	31				0	2047	2047	2087	31
163	Roads - Culvert					Culvert Corrugated Steel - 12th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 190	$ 190	$ -	$ 1,425	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
168	Roads - Culvert					Culvert Corrugated Steel - 12th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 191	$ 191	$ -	$ 1,434	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
174	Roads - Culvert					Culvert Corrugated Steel - 12th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 185	$ 185	$ -	$ 1,382	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
175	Roads - Culvert					Culvert Corrugated Steel - 12th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 197	$ 197	$ -	$ 1,482	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
177	Roads - Culvert					Culvert Corrugated Steel - 12th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 181	$ 181	$ -	$ 1,357	0	0	0	Very Poor	Almost Certain	Moderate	H	3	1996	10	2000	2017	2074	1				0	2000	2017	2057	1
182	Roads - Culvert					Culvert Corrugated Steel - 12th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 170	$ 170	$ -	$ 1,273	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
187	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	2000	40	33	7	$ 5,887	$ 1,374	$ 4,513	$ 5,800																							
188	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	2000	40	33	7	$ 5,887	$ 1,374	$ 4,513	$ 5,800	8	5	5	Average	Possible	Moderate	M	2	2045	10	2049	2049	2089	33				0	2049	2049	2089	33
189	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 167	$ 167	$ -	$ 1,253	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
201	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 234	$ 234	$ -	$ 1,758	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
203	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 223	$ 223	$ -	$ 1,674	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
204	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 206	$ 206	$ -	$ 1,545																							
207	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 188	$ 188	$ -	$ 1,410	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
208	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 184	$ 184	$ -	$ 1,375	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
209	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 170	$ 170	$ -	$ 1,273																							
210	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 167	$ 167	$ -	$ 1,248	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
220	Roads - Culvert					Culvert Corrugated Steel - 19th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 210	$ 210	$ -	$ 1,573	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
221	Roads - Culvert					Culvert Corrugated Steel - 19th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 183	$ 183	$ -	$ 1,369	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
222	Roads - Culvert					Culvert Corrugated Steel - 19th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 173	$ 173	$ -	$ 1,293	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
223	Roads - Culvert					Culvert Corrugated Steel - 19th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 174	$ 174	$ -	$ 1,301	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
224	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 192	$ 192	$ -	$ 1,438	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
225	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 1,286	$ 1,286	$ -	$ 1,286	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
232	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 183	$ 183	$ -	$ 1,372	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
233	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 200	$ 200	$ -	$ 1,494	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
236	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 201	$ 201	$ -	$ 1,502	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
238	Roads - Culvert					Culvert Corrugated Steel - 10th Line		NULL	NULL	NULL	NULL	2007	40	31	9	$ 1,561	$ 549	$ 1,012	$ 1,688	8	5	5	Average	Possible	Moderate	M	2	2043	10	2047	2047	2087	31				0	2047	2047	2087	31
245	Roads - Culvert					Culvert Corrugated Steel - A Line		NULL	NULL	NULL	NULL	2004	40	28	12	$ 1,609	$ 644	$ 966	$ 1,727	7	5	5	Average	Possible	Moderate	M	2	2040	10	2044	2044	2084	28				0	2044	2044	2084	28
246	Roads - Culvert					Culvert Corrugated Steel - A Line		NULL	NULL	NULL	NULL	2004	40	28	12	$ 1,284	$ 457	$ 826	$ 1,496	7	5	5	Average	Possible	Moderate	M	2	2040	10	2044	2044	2084	28				0	2044	2044	2084	28
247	Roads - Culvert					Culvert Corrugated Steel - Rayburn Meadows		NULL	NULL	NULL	NULL	2008	40	32	8	$ 1,701	$ 454	$ 1,247	$ 1,701	8	5	5	Average	Possible	Moderate	M	2	2044	10	2048	2048	2088	32				0	2048	2048	2088	32
248	Roads - Culvert					Culvert Corrugated Steel - A Line - Cross Road		NULL	NULL	NULL	NULL	1960	40	0	56	$ 233	$ 233	$ -	$ 1,748	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
249	Roads - Culvert					Culvert Corrugated Steel - A Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 225	$ 225	$ -	$ 1,682	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
250	Roads - Culvert					Culvert Corrugated Steel - A Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 206	$ 206	$ -	$ 1,545	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
253	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,745	$ 931	$ 814	$ 1,966	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
254	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,399	$ 746	$ 653	$ 1,655	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
256	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,196	$ 638	$ 558	$ 1,415	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
257	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,123	$ 599	$ 524	$ 1,328	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
258	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,289	$ 807	$ 482	$ 1,524	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
261	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,347	$ 718	$ 629	$ 1,594	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
266	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,287	$ 662	$ 625	$ 1,524	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
267	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,380	$ 736	$ 644	$ 1,632	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
268	Roads - Culvert					Culvert PVC - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,537	$ 307	$ 1,230	$ 1,818	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
269	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,305	$ 696	$ 609	$ 1,544	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
270	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2000	40	24	16	$ 1,303	$ 695	$ 608	$ 1,541	6	5	5	Average	Possible	Moderate	M	2	2036	10	2040	2040	2080	24				0	2040	2040	2080	24
272	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2004	40	30	10	$ 1,216	$ 405	$ 810	Diapraised																							
273	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2004	40	30	10	$ 1,221	$ 407	$ 814	$ 1,266	8	5	5	Average	Possible	Moderate	M	2	2042	10	2046	2046	2086	30				0	2046	2046	2086	30
279	Roads - Culvert					Culvert Corrugated Steel - 11th Line		NULL	NULL	NULL	NULL	2004	40	30	10	$ 1,230	$ 410	$ 820	$ 1,275	8	5	5	Average	Possible	Moderate	M	2	2042	10	2046	2046	2086	30				0	2046	2046	2086	30
285	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 166	$ 166	$ -	$ 1,498	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
287	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 204	$ 204	$ -	$ 1,526	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
289	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 196	$ 196	$ -	$ 1,471	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
298	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 187	$ 187	$ -	$ 1,397	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
303	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 179	$ 179	$ -	$ 1,341	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
304	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 188	$ 188	$ -	$ 1,404	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
305	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 179	$ 179	$ -	$ 1,339	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
307	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 164	$ 164	$ -	$ 1,379	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
310	Roads - Culvert					Culvert Corrugated Steel - 15th Line		NULL	NULL	NULL	NULL	1960	40	0	56	$ 244	$ 244	$ -	$ 1,829	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
312	Roads - Culvert					Culvert Corrugated Steel - 10th SR		NULL	NULL	NULL	NULL	1960	40	0	56	$ 182	$ 182	$ -	$ 1,364	0	5	5	Average	Possible	Moderate	M	2	1996	10	2000	2017	2074	1				30	2012	2017	2057	1
127	Roads - Culvert					Culvert Corrugated Steel - 16th Line		NULL	NULL	NULL	NULL	2008	40	32	8	$ 1,509	$ 402	$ 1,107	$ 1,509	8	5	5																				
331	Roads - Culvert					Culvert Corrugated Steel - 16th Line		NULL	NUL

East Garafraxa
Roads - Bridge Inventory

Current Leveles of Service
Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service
Replacement/Improvement Year Based

FIXED ASSET ID	Map Link	Subtype	Asset Name	Asset Type	Description /Location	Admin Agency	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Inspection Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment		Expected Levels of Service % benefit over Current + Condition better then expected for age	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
									24	55	$ 4,510,147	$ 1,040,930	$ 3,601,253	$ 11,092,521			6.8					2								$ 669,500								
857		Roads - Br	Bridge 1 - 20th SR	Arch Culvert		Township of East Garafraxa	1976	50	10	40	$ 18,718	$ 9,983	$ 8,735	$ 70,000	2	8	8	Good	Unlikely	Major	M	2	2021	10	2026	2026	2076	10						30	2036	2036	2086	20
872		Roads - Br	Bridge 2 - 10th Line	Rectangular Culvert		Township of East Garafraxa	1950	75	9	66	$ 19,368	$ 17,044	$ 2,324	$ 180,000	1	7	7	Good	Unlikely	Major	M	2	2018	10	2026	2026	2102	10		$6,000	2022	0	Repair cracks in North-East Retaining wall	30	2041	2041	2116	25
850		Roads - Br	Bridge 3 - 10th Line	Multi-Plate Culverts		Township of East Garafraxa	2016	50	50	0	$ 284,000	$ -	$ 284,000	$ 300,000	10	10	10	Very Good	Rare	Major	M	2	2061	10	2066	2066	2116	50						0	2061	2061	2111	45
870		Roads - Br	Bridge 4 - 11th Line	Solid Slab		Township of East Garafraxa	1945	75	4	71	$ 14,166	$ 13,410	$ 756	$ 180,000	1	7	7	Good	Unlikely	Major	M	2	2013	10	2021	2021	2097	5						30	2039	2039	2114	23
2514		Roads - Br	Bridge 5 - 10th Line	Arch Culvert		Township of East Garafraxa	1972	50	6	44	$ 20,779	$ 12,190	$ 8,589	$ 250,000	1	7	7	Good	Unlikely	Major	M	2	2017	10	2022	2022	2072	6						30	2032	2020	2070	4
859		Roads - Br	Bridge 6 (4-108) - 11th Line	Deck Truss		Township of East Garafraxa	1987	75	46	29	$ 841,400	$ 325,341	$ 516,059	$ 1,400,000	6	8	8	Good	Unlikely	Major	M	2	2055	10	2063	2063	2139	47		$50,000	2022		replace broken drain and rotten barriers	0	2055	2055	2130	39
4029	861	Roads - Br	Bridge 7 (4-109) - 12th Line	Bowstring Arch		Township of East Garafraxa	1926	75	0	90	$ 311,646	$ 28,980	$ 282,666	$ 2,500,000	0	5	5	Average	Possible	Major	H	3	1994	10	2002	2017	2108	1		$433,000	2018	30	Concrete repairs, and drains	20	2048	2048	2123	32
863		Roads - Br	Bridge 8 (4-110) - 13th Line	I-beam or Girders		Township of East Garafraxa	1913	75	0	103	$ 48,450	$ 61,475	$ 119,010	$ 950,000	0	6	6	Average	Possible	Major	H	3	1981	10	1989	2017	2121	1						30	2039	2039	2114	23
851		Roads - Br	Bridge 9 (4-107) - 10th Line	I-beam or Girders		Township of East Garafraxa	2008	75	67	8	$ 1,779,493	$ 189,730	$ 1,589,764	$ 1,635,827	9	8	8	Good	Unlikely	Major	M	2	2076	10	2084	2084	2160	68						0	2076	2076	2151	60
860		Roads - Br	Bridge 10 - 11th Line	T-Beam		Township of East Garafraxa	2003	75	62	13	$ 311,205	$ 53,942	$ 257,263	$ 240,133	8	8	8	Good	Unlikely	Major	M	2	2071	10	2079	2079	2155	63						0	2071	2071	2146	55
2516		Roads - Br	Bridge 11 - 12th Line	Arch Culvert		Township of East Garafraxa	1969	50	3	47	$ 27,040	$ 16,945	$ 10,095	$ 160,000	1	8	8	Good	Unlikely	Major	M	2	2014	10	2019	2019	2069	3						40	2036	2036	2086	20
2515		Roads - Br	Bridge 12 - 10th SR	Arch Multi-Plate Culverts		Township of East Garafraxa	2000	50	34	16	$ 59,192	$ 12,628	$ 46,564	$ 70,000	7	8	8	Good	Unlikely	Major	M	2	2045	10	2050	2050	2100	34						0	2045	2045	2095	29
852		Roads - Br	Bridge 13 - 10th SR	Rectangular Culvert		Township of East Garafraxa	2000	75	59	16	$ 91,325	$ 19,483	$ 71,842	$ 108,000	8	7	7	Good	Unlikely	Major	M	2	2068	10	2076	2076	2152	60		$18,000	2027			0	2068	2068	2143	52
853		Roads - Br	Bridge 14 - 10th SR	T-Beam		Township of East Garafraxa	1930	75	0	86	$ 14,166	$ 14,166	$ -	$ 400,000	0	7	7	Good	Unlikely	Major	M	2	1998	10	2006	2017	2104	1						40	2046	2023	2098	7
871		Roads - Br	Bridge 15 (4-114) - 13th Lin	Rigid Frame, Vertical Legs		Township of East Garafraxa	1979	75	38	37	$ 68,280	$ 33,685	$ 34,595	$ 200,000	5	8	8	Good	Unlikely	Major	M	2	2047	10	2055	2055	2131	39		$39,000	2022			5	2051	2051	2126	35
2517		Roads - Br	Bridge 16 - East Garafraxa /	Rectangular Culvert	Townline	Township of East Garafraxa	1960	75	19	56	$ 24,048	$ 17,956	$ 6,092	$ 60,000	3	7	7	Good	Unlikely	Major	M	2	2028	10	2036	2036	2112	20						10	2036	2019	2094	3
864		Roads - Br	Bridge 17 - 13th Line	Solid Slab		Township of East Garafraxa	1940	75	0	76	$ 8,232	$ 8,232	$ -	$ 50,000	0	5	5	Average	Possible	Major	H	3	2008	10	2016	2017	2094	1						20	2031	2018	2093	2
5142		Roads - Br	Bridge 18 - 13th Line	Round Culvert		Township of East Garafraxa	2015	30	29	1	$ 10,072	$ 336	$ 9,736	$ 10,072	10	7	7	Good	Unlikely	Major	M	2	2042	10	2045	2045	2075	29		$40,000	2027	20		0	2047	2047	2077	31
855		Roads - Br	Bridge 19 - 16th Line	Rectangular Culvert		Township of East Garafraxa	1960	75	19	56	$ 18,704	$ 13,966	$ 4,738	$ 140,000	3	7	7	Good	Unlikely	Major	M	2	2028	10	2036	2036	2112	20						10	2036	2036	2111	20
854		Roads - Br	Bridge 20 - 15ht Line	Rectangular Culvert		Township of East Garafraxa	1950	75	9	66	$ 12,912	$ 11,363	$ 1,549	$ 120,000	1	7	7	Good	Unlikely	Major	M	2	2018	10	2026	2026	2102	10						30	2041	2041	2116	25
862		Roads - Br	Bridge 21 - 12th Line	Multi-Plate Culverts		Township of East Garafraxa	2007	50	41	9	$ 105,782	$ 12,694	$ 93,089	$ 84,771	8	7	7	Good	Unlikely	Major	M	2	2052	10	2057	2057	2107	41						0	2052	2052	2102	36
2518		Roads - Br	Bridge 22 - 18th Line	Rectangular Culvert		Township of East Garafraxa	1940	75	0	76	$ 6,860	$ 6,860	$ -	$ 100,000	0	7	7	Good	Unlikely	Major	M	2	2008	10	2016	2017	2094	1		$39,000	2017			40	2046	2046	2121	30
856		Roads - Br	Bridge 23 - 19th Line	Solid Slab	Townline	Township of East Garafraxa	2007	75	66	9	$ 180,566	$ 21,668	$ 158,898	$ 148,718	9	8	8	Good	Unlikely	Major	M	2	2075	10	2083	2083	2159	67						0	2075	2075	2150	59
869		Roads - Br	Bridge 24 - East Garafraxa /	Rectangular Culvert	Townline	Township of East Garafraxa	1950	75	9	66	$ 23,672	$ 20,831	$ 2,841	$ 220,000	1	7	7	Good	Unlikely	Major	M	2	2018	10	2026	2026	2102	10						30	2041	2041	2116	25
2519		Roads - Br	Bridge 26 - East Garafraxa /	Rectangular Culvert	Townline	Township of East Garafraxa	1940	75	0	76	$ 11,662	$ 11,662	$ -	$ 175,000	0	6	6	Average	Possible	Major	H	3	2008	10	2016	2017	2094	1		$10,000	2019			30	2039	2020	2095	4
2942		Roads - Br	Bridge 27 - East Garafraxa /	Rectangular Culvert	Townline	Township of East Garafraxa	1945	75	4	71	$ 7,870	$ 7,450	$ 420	$ 100,000	1	6	6	Average	Possible	Major	H	3	2013	10	2021	2013	2088	-3						20	2031	2024	2099	8
5206		Roads - Br	Bridge 28 - East Garafraxa	Rectangular Culvert	021031 E GA	Township of East Garafraxa	1940	75	0	76	$ 10,959	$ 10,959	$ -	$ 225,000	0	7	7	Good	Unlikely	Major	M	2	2008	10	2016	2017	2094	1						40	2046	2026	2101	10
5211		Roads - Br	Bridge 29 - East Garafraxa	Rectangular Culvert	021031 E GA	Township of East Garafraxa	1940	75	0	76	$ 14,090	$ 14,090	$ -	$ 225,000	0	6	6	Average	Possible	Major	H	3	2008	10	2016	2017	2094	1		$32,500	2028	20		30	2048	2048	2123	32
5208		Roads - Br	Bridge 30 - East Garafraxa	Rectangular Culvert	021257 E GA	Town of Erin	1960	75	19	56	$ 23,891	$ 17,520	$ 6,371	$ 175,000	3	8	8	Good	Unlikely	Major	M	2	2028	10	2036	2036	2112	20						20	2043	2043	2118	27
5207		Roads - Br	Bridge 31 - 20th SR	Rectangular Culvert	181034 20 SI	Township of East Garafraxa	1940	75	0	76	$ 14,090	$ 14,090	$ -	$ 225,000	0	5	5	Average	Possible	Major	H	3	2008	10	2016	2017	2094	1		$2,000	2017	20		20	2037	2037	2112	21
			Erin Bridge 2071	Rectangular Culvert	022043 E GA	Town of Erin	1996	75	55	20	$ 103,713	$ 27,657	$ 76,056	$ 200,000	7	8	8	Good	Unlikely	Major	M	2	2064	10	2072	2072	2148	56						0	2064	2064	2139	48
			Erin Bridge 2072	Rectangular Culvert	021269 E GA	Town of Erin	1970	75	29	46	$ 23,796	$ 14,595	$ 9,201	$ 190,000	4	7	7	Good	Unlikely	Major	M	2	2038	10	2046	2046	2122	30						5	2042	2042	2117	26

East Garafraxa
Roads - Road Section Inventory

Current Leveles of Service — Replacement/Improvement Year Based on Current Levels

Expected Levels of Service + Town Input — Replacement/Improvement Year Based on Expected Levels Service

Fixed Asset #	Map Link	Subtype	Asset Name - Roads	From	To	Classification	Surface Material	Length (m)	Width (m)	Square meters (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization System	2015 Net Book Value System	Replacement Cost/Section	Condition Based On Useful Life	Condition from Town	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then expected for age	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year		Revised Remaining Useful Life
								145,681					12	10	$2,623,871	$1,339,362	$1,500,862	$3,981,000			7.0					2								$120,000								
3001		Roads - Road S	10TH LINE - From: EAST GARAFRAXA - ERIN TOWNLINE To: COUNTY ROAD 3	EAST GARAFRAXA - ERIN TOWNLINE	0.9 km S. of COUNTY ROAD 3	Rural	Asphalt	2092	7	14644	2010	20	14	6	$ 299,239	$ 119,696	$ 179,543	$ 300,000	7	7	7	Good	Unlikely	Moderate	M	2	2024	10	2026	2026	2046	10		$40,000	2017	7	0	2024	2024	2044		8
2486		Roads - Road S	13TH LINE - From: 0.2 kms S. of COUNTY ROAD 3 To: COUNTY ROAD 3	0.2 kms S. of COUNTY ROAD 3	COUNTY ROAD 3	Rural	Asphalt	220	6.5	1427	1995	20	0	21	$ 10,138	$ 10,138	$ -	$ 15,000	0	5	5	Average	Possible	Moderate	M	2	2009	10	2011	2017	2039	1					20	2020	2020	2040		4
2400		Roads - Road S	13TH LINE - From: COUNTY ROAD 3 To: 0.1 kms N. of COUNTY ROAD 3	COUNTY ROAD 3	0.1 kms N. of COUNTY ROAD 3	Semi-Urban	Asphalt	69	6.5	451	1995	20	0	21	$ 3,204	$ 3,204	$ -	$ 5,000	0	5	5	Average	Possible	Moderate	M	2	2009	10	2011	2017	2039	1					20	2020	2020	2040		4
	2490 2489	Roads - Road S	17th LINE - From: 10TH SIDEROAD To: County Rd 109	10th SIDEROAD	COUNTY ROAD 109	Rural	Asphalt	1137	7	7959	2016	20	20	0	$ 86,741	$ -	$ 86,741	$ 90,000	10	10	10	Very Good	Rare	Moderate	L	1	2030	10	2032	2032	2052	16					0	2032	2032	2052		16
	2458	Roads - Road S	17th LINE - From: COUNTY ROAD 3 To: 10TH SIDEROAD	COUNTY ROAD 4	11th SIDEROAD	Rural	Asphalt	3075	7	21526	2016	20	20	0	$ 234,523	$ -	$ 234,523	$ 250,000	10	10	10	Very Good	Rare	Moderate	L	1	2030	10	2032	2032	2052	16					0	2032	2032	2052		16
	2982 2983	Roads - Road S	17TH LINE - From: East Garafraxa/ Erin Townline - County Rd 3	East Garafraxa/Erin Townline	County Rd 3	Rural	Asphalt	3960	7	27720	2009	20	13	7	$ 288,247	$ 100,886.45	$ 187,361	$ 320,000	7	5	5	Average	Possible	Moderate	M	2	2023	10	2025	2025	2045	9		$80,000	2018	10	0	2028	2028	2048		12
	2995	Roads - Road S	18TH LINE - From: COUNTY ROAD 3 To: END OF 18TH LINE	COUNTY ROAD 3	END OF 18TH LINE	Rural	Asphalt	896	7	6269	2010	20	14	6	$ 68,814	$ 20,644	$ 48,170	$ 75,000	7	7	7	Good	Unlikely	Moderate	M	2	2024	10	2026	2026	2046	10					0	2026	2026	2046		10
	2430	Roads - Road S	20th SR - 10th Line - 11th Line	10TH LINE	11TH LINE	Rural	Asphalt	1377	7	9642	2013	20	17	3	$ 109,670	$ 21,934	$ 87,736	$ 110,000	9	8	8	Good	Unlikely	Moderate	M	2	2027	10	2029	2029	2049	13					0	2029	2029	2049		13
	2448	Roads - Road S	20th SR - 11th Line - County Road 109	11TH LINE	COUNTY ROAD 109	Rural	Asphalt	709	7	4963	2013	20	17	3	$ 54,835	$ 10,967	$ 43,868	$ 55,000	9	8	8	Good	Unlikely	Moderate	M	2	2027	10	2029	2029	2049	13					0	2029	2029	2049		13
	2411	Roads - Road S	20th SR - 9th Line - 10th Line	9TH LINE	10TH LINE	Rural	Asphalt	1354	7	9480	2013	20	17	3	$ 109,670	$ 21,934	$ 87,736	$ 110,000	9	8	8	Good	Unlikely	Moderate	M	2	2027	10	2029	2029	2049	13					0	2029	2029	2049		13
	2408	Roads - Road S	20th SR - East Garafraxa / West Garafraxa TL - 9th Line	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE	9TH LINE	Rural	Asphalt	1387	7	9712	2013	20	17	3	$ 109,670	$ 21,934	$ 87,736	$ 110,000	9	8	8	Good	Unlikely	Moderate	M	2	2027	10	2029	2029	2049	13					0	2029	2029	2049		13
		Roads - Road S	A Line - East Garafraxa/Caledon Townline to Rayburn Cres.	East Garafraxa/Caledon Townline	Rayburn Cres.	Rural	Asphalt	690	7	4830	2010	20	14	6	$ 50,647	$ 15,194.10	$ 35,453	$ 200,000	7	7	7	Good	Unlikely	Moderate	M	2	2024	10	2026	2026	2046	10					0	2026	2024	2044		8
		Roads - Road S	A Line - Old Carriage Rd to Cross Rd Culvert 250	Old Carriage Rd	Culvert 250	Rural	Asphalt	990	7	6930	2010	20	14	6	$ 72,668	$ 21,800.40	$ 50,868	$ 79,200	7	7	7	Good	Unlikely	Moderate	M	2	2024	10	2026	2026	2046	10					0	2026	2026	2046		10
		Roads - Road S	A Line - Rayburn Cres. To Old Carriage Rd	Rayburn Cres.	Old Carriage Rd	Rural	Asphalt	690	7	4830	2010	20	14	6	$ 50,647	$ 15,194.10	$ 35,453	$ 55,200	7	7	7	Good	Unlikely	Moderate	M	2	2024	10	2026	2026	2046	10					0	2026	2026	2046		10
2469		Roads - Road S	BROOKHAVEN CR. - From: COUNTY ROAD 23 / B LINE To: County Road 23 / B Line	COUNTY ROAD 22 / B LINE	County Road 22 / B Line	Semi-Urban	Asphalt	2169	7	15185	2005	20	9	11	$ 123,560	$ 90,611	$ 32,949	$ 160,000	5	7	7	Good	Unlikely	Moderate	M	2	2019	10	2021	2021	2041	5					0	2021	2025	2045		9
2463		Roads - Road S	CEDAR PLACE - From: OLD CARRIAGE ROAD To: END OF CEDAR PLACE	OLD CARRIAGE ROAD	END OF CEDAR PLACE	Semi-Urban	Asphalt	149	6	897	1980	20	0	36	$ 3,371	$ 3,371	$ -	$ 10,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2425		Roads - Road S	EAST GARAFRAXA - CALEDON TOWNLINE - From: 19TH LINE To: A LINE	19TH LINE	A LINE	Rural	Asphalt	1379	6	8274	2007	20	11	9	$ 81,341	$ 48,804	$ 32,536	$ 150,000	6	6	6	Average	Possible	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2019	2039		3
2447		Roads - Road S	EAST GARAFRAXA - CALEDON TOWNLINE - From: WINSTON CHURCHILL BOULEVARD To:	WINSTON CHURCHILL BOULEVARD	19TH LINE	Rural	Asphalt	751	6	4507	2007	20	11	9	$ 44,311	$ 26,587	$ 17,724	$ 50,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2019	2039		3
2422		Roads - Road S	EAST GARAFRAXA - ERIN TOWNLINE - From: 15TH LINE To: 16TH LINE	15TH LINE	16TH LINE	Rural	Asphalt	1373	6.5	8921	2007	20	11	9	$ 26,986	$ 16,192	$ 10,795	$ 120,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2022	2042		6
2423		Roads - Road S	EAST GARAFRAXA - ERIN TOWNLINE - From: 16TH LINE To: 17TH LINE	16TH LINE	17TH LINE	Rural	Asphalt	1356	6.5	8814	2007	20	11	9	$ 26,663	$ 15,998	$ 10,665	$ 120,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2022	2042		6
2424		Roads - Road S	EAST GARAFRAXA - ERIN TOWNLINE - From: 17TH LINE To: 18TH LINE	17TH LINE	18TH LINE	Rural	Asphalt	1362	6.5	8852	2007	20	11	9	$ 26,777	$ 16,066	$ 10,711	$ 120,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2022	2042		6
2417		Roads - Road S	EAST GARAFRAXA - ERIN TOWNLINE - From: 18TH LINE To: WINSTON CHURCHILL BOULEV	18TH LINE	WINSTON CHURCHILL BOULEVARD	Rural	Asphalt	575	6.5	3737	2007	20	11	9	$ 11,305	$ 6,783	$ 4,522	$ 70,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2022	2042		6
2404		Roads - Road S	EAST GARAFRAXA - ERIN TOWNLINE - From: COUNTY ROAD 24 To: 15TH LINE	COUNTY ROAD 24	15TH LINE	Rural	Asphalt	1338	6.5	8699	2007	20	11	9	$ 26,314	$ 15,788	$ 10,526	$ 120,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2022	2042		6
		Roads - Road S	East Garafraxa/Caledon Townline - A Line - County Rd 23	A LINE	County Rd 23	Rural	Asphalt	1740	7	12180	2007	20	11	9	$ 117,335	$ 52,801	$ 64,534	$ 140,000	6	6	6	Average	Possible	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2023	2043		7
2445		Roads - Road S	GRAND CRESCENT - From: COUNTY ROAD 3 To: VICTORIA BOULEVARD	COUNTY ROAD 3	VICTORIA BOULEVARD	Semi-Urban	Asphalt	88	6	529	1972	20	0	44	$ 1,000	$ 1,000	$ -	$ 7,500	0	5	5	Average	Possible	Moderate	M	2	1986	10	1988	2017	2062	1					20	2020	2020	2040		4
2399		Roads - Road S	GRAND CRESCENT - From: VICTORIA BOULEVARD To: END	VICTORIA BOULEVARD	END	Semi-Urban	Asphalt	84	7	588	1972	20	0	44	$ 952	$ 952	$ -	$ 7,500	0	5	5	Average	Possible	Moderate	M	2	1986	10	1988	2017	2062	1					20	2020	2020	2040		4
2467		Roads - Road S	GREENWOOD CRESCENT - From: OLD CARRIAGE ROAD To: END OF GREENWOOD CRESCE	OLD CARRIAGE ROAD	END OF GREENWOOD CRESCENT	Semi-Urban	Asphalt	521	6	3126	1980	20	0	36	$ 11,749	$ 11,749	$ -	$ 80,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2478		Roads - Road S	HILLTOP CRESCENT - From: OLD CARRIAGE ROAD To: END OF HILLTOP CRESCENT	OLD CARRIAGE ROAD	END OF HILLTOP CRESCENT	Semi-Urban	Asphalt	511	7	3579	1980	20	0	36	$ 11,527	$ 11,527	$ -	$ 80,000	0	5	5	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					20	2020	2018	2038		2
	2426	Roads - Road S	John St - East Garafraxa/Erin Townline - End of Road	East Garafraxa/Erin Townline	End of Road	Semi-Urban	Asphalt	270	6	1620	2013	20	17	3	$ 20,196	$ 3,029.40	$ 17,167	$ 21,600	9	5	5	Average	Possible	Moderate	M	2	2027	10	2029	2029	2049	13					0	2029	2029	2049		13
2443		Roads - Road S	MAPLE STREET - From: COUNTY ROAD 3 To: VICTORIA BOULEVARD	COUNTY ROAD 3	VICTORIA BOULEVARD	Semi-Urban	Asphalt	68	6	410	1972	20	0	44	$ 775	$ 775	$ -	$ 5,000	0	5	5	Average	Possible	Moderate	M	2	1986	10	1988	2017	2062	1					20	2020	2020	2040		4
2444		Roads - Road S	MAPLE STREET - From: VICTORIA BOULEVARD To: END	VICTORIA BOULEVARD	END	Semi-Urban	Asphalt	33	6	195	1972	20	0	44	$ 369	$ 369	$ -	$ 2,500	0	5	5	Average	Possible	Moderate	M	2	1986	10	1988	2017	2062	1					20	2020	2020	2040		4
2475		Roads - Road S	MAYWOOD DRIVE - From: OLD CARRIAGE ROAD To: END OF MAYWOOD DRIVE	OLD CARRIAGE ROAD	END OF MAYWOOD DRIVE	Semi-Urban	Asphalt	248	7	1737	1980	20	0	36	$ 5,595	$ 5,595	$ -	$ 15,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2479		Roads - Road S	OLD CARRIAGE ROAD - From: B LINE/COUNTY ROAD 23 To: HILLTOP CRESENT	B LINE/COUNTY ROAD 23	HILLTOP CRESENT	Semi-Urban	Asphalt	149	7	1042	1980	20	0	36	$ 3,358	$ 3,358	$ -	$ 10,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2462		Roads - Road S	OLD CARRIAGE ROAD - From: CEDAR PLACE To: A LINE	CEDAR PLACE	A LINE	Semi-Urban	Asphalt	145	7	1017	1980	20	0	36	$ 3,275	$ 3,275	$ -	$ 10,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2466		Roads - Road S	OLD CARRIAGE ROAD - From: GREENWOOD CRESCENT To: CEDAR PLACE	GREENWOOD CRESCENT	CEDAR PLACE	Semi-Urban	Asphalt	449	7	3140	1980	20	0	36	$ 10,116	$ 10,116	$ -	$ 30,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2477		Roads - Road S	OLD CARRIAGE ROAD - From: HILLTOP CRESCENT To: MAYWOOD DRIVE	HILLTOP CRESCENT	MAYWOOD DRIVE	Semi-Urban	Asphalt	500	7	3502	1980	20	0	36	$ 11,281	$ 11,281	$ -	$ 32,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2473		Roads - Road S	OLD CARRIAGE ROAD - From: MAYWOOD DRIVE To: SPRINGVIEW COURT	MAYWOOD DRIVE	SPRINGVIEW COURT	Semi-Urban	Asphalt	254	7	1777	1980	20	0	36	$ 5,724	$ 5,724	$ -	$ 17,500	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2471		Roads - Road S	OLD CARRIAGE ROAD - From: SPRINGVIEW COURT To: GREENWOOD CRESCENT	SPRINGVIEW COURT	GREENWOOD CRESCENT	Semi-Urban	Asphalt	250	7	1747	1980	20	0	36	$ 5,628	$ 5,628	$ -	$ 15,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2455		Roads - Road S	RAYBURN MEADOWS - From: A LINE To: RAYBURN MEADOWS	A LINE	RAYBURN MEADOWS	Semi-Urban	Asphalt	252	7	1761	2003	20	7	13	$ 13,844	$ 11,998	$ 1,846	$ 16,000	4	7	7	Good	Unlikely	Moderate	M	2	2017	10	2019	2019	2039	3					5	2020	2020	2040		4
2454		Roads - Road S	RAYBURN MEADOWS - From: RAYBURN MEADOWS To: RAYBURN MEADOWS	RAYBURN MEADOWS	RAYBURN MEADOWS	Semi-Urban	Asphalt	1005	7	7032	2003	20	7	13	$ 55,280	$ 47,909	$ 7,371	$ 62,000	4	7	7	Good	Unlikely	Moderate	M	2	2017	10	2019	2019	2039	3					5	2020	2020	2040		4
2472		Roads - Road S	SPRINGVIEW COURT - From: OLD CARRIAGE ROAD To: END OF SPRINGVIEW COURT	OLD CARRIAGE ROAD	END OF SPRINGVIEW COURT	Semi-Urban	Asphalt	146	7	1023	1980	20	0	36	$ 3,295	$ 3,295	$ -	$ 10,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2398		Roads - Road S	VICTORIA BOULEVARD - From: GRAND CRESCENT To: MAPLE STREET	GRAND CRESCENT	MAPLE STREET	Semi-Urban	Asphalt	392	6	2350	1972	20	0	44	$ 4,439	$ 4,439	$ -	$ 25,000	0	5	5	Average	Possible	Moderate	M	2	1986	10	1988	2017	2062	1					20	2020	2020	2040		4
2418		Roads - Road S	WINSTON CHURCHILL BOULEVARD - From: EAST GARAFRAXA - ERIN TOWNLINE To: END (	EAST GARAFRAXA - ERIN TOWNLINE	END OF ROAD	Rural	Asphalt	481	6	2886	2007	20	11	9	$ 14,187	$ 8,512	$ 5,675	$ 15,000	6	7	7	Good	Unlikely	Moderate	M	2	2021	10	2023	2023	2043	7					0	2023	2023	2043		7
2498		Roads - Road S	WOODLAND DRIVE - From: 0.3 km S. of Old Carrage Road To: County Road 22 / B Line	0.3 km S. of Old Carrage Road	County Road 22 / B Line	Semi-Urban	Asphalt	791	7	5534	1980	20	0	36	$ 17,937	$ 17,937	$ -	$ 50,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
2497		Roads - Road S	WOODLAND DRIVE - From: OLD CARRIAGE ROAD To: 0.3 km SE of OLD CARRIAGE ROAD	OLD CARRIAGE ROAD	0.3 km SE of OLD CARRIAGE ROAD	Semi-Urban	Asphalt	299	7	2092	1980	20	0	36	$ 6,737	$ 6,737	$ -	$ 20,000	0	6	6	Average	Possible	Moderate	M	2	1994	10	1996	2017	2054	1					25	2021	2021	2041		5
5061		Roads - Road S	10th Line - 10th SR - Grand River	10TH SIDEROAD	GRAND RIVER	Rural	Gravel	1588	7.3	11589	2014	3	1	2	$ -	$ 4,568	$ 2,284	$ 7,500	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
2419		Roads - Road S	10th Line - 20th SR - County Rd 109	20TH SIDEROAD	COUNTY ROAD 109	Rural	Gravel	1379	7.5	10343	2013	3	0	3	$ 15,525	$ 15,525	$ -	$ 17,500	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
5062		Roads - Road S	10th Line - County Rd 3 - 10th SR	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3049	7.3	22258	2014	3	1	2	$ -	$ 12,247	$ 6,124	$ 20,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
5059		Roads - Road S	10TH LINE - From: BELWOOD ROAD/County Rd 5 To: 20TH SIDEROAD	BELWOOD ROAD/County Rd 5	20TH SIDEROAD	Rural	Gravel	3058	7.5	22932	2014	3	1	2	$ -	$ 12,459	$ 6,229	$ 20,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
5060		Roads - Road S	10th Line - Grand River - Bellwood Rd/County Rd 5	GRAND RIVER	Bellwood Rd/COUNTY ROAD 5	Rural	Gravel	1459	7.3	10649	2014	3	1	2	$ -	$ 4,568	$ 2,284	$ 8,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
2998		Roads - Road S	10TH SIDEROAD - From: 15TH LINE To: 16TH LINE	15TH LINE	16TH LINE	Rural	Gravel	1350	3.5	4726	2009	3	0	7	$ 5,135	$ 5,135	$ -	$ 6,000	0	5	5	Average	Possible	Moderate	M	2	2011	10	2011	2017	2025	1					20	2017	2017	2020		1
5056	3157	Roads - Road S	10TH SIDEROAD - From: 9TH LINE To: 10TH LINE	9TH LINE	10TH LINE	Rural	Gravel	1360	7	9521	2014	3	1	2	$ -	$ 3,596	$ 1,798	$ 6,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
2947	2505	Roads - Road S	10TH SIDEROAD - From: COUNTY ROAD 24 To: 15TH LINE	COUNTY ROAD 24	15TH LINE	Rural	Gravel	1387	4.5	6242	2008	3	0	8	$ 1,572	NULL	NULL	$ 2,000	0	5	5	Average	Possible	Moderate	M	2	2010	10	2010	2017	2026	1					20	2017	2017	2020		1
5055	3158	Roads - Road S	10TH SIDEROAD - From: EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE To: 9TH LINE	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE	9TH LINE	Rural	Gravel	1391	7	9735	2014	3	1	2	$ -	$ 3,596	$ 1,798	$ 6,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
3156		Roads - Road S	10th SR - 10th Line - 11th Line	10TH LINE	11TH LINE	Rural	Gravel	1364	7	9546	2011	3	0	5	$ 6,637	$ 8,331	$ 1,694	$ 7,000	0	5	5	Average	Possible	Moderate	M	2	2013	10	2013	2017	2023	1					20	2017	2017	2020		1
3155		Roads - Road S	10th SR - 11th Line - 12th Line	11TH LINE	12TH LINE	Rural	Gravel	1312	7	9185	2011	3	0	5	$ 4,612	$ 6,217	$ 1,605	$ 5,000	0	5	5	Average	Possible	Moderate	M	2	2013	10	2013	2017	2023	1					20	2017	2017	2020		1
3154		Roads - Road S	10th SR - 12th Line - 13th Line	12TH LINE	13TH LINE	Rural	Gravel	1442	7.5	10815	2011	3	0	5	$ 4,390	$ 5,905	$ 1,515	$ 5,000	0	5	5	Average	Possible	Moderate	M	2	2013	10	2013	2017	2023	1					20	2017	2017	2020		1
4016		Roads - Road S	10th SR - 13th Line - County Rd 24	13TH LINE	COUNTY ROAD 24	Rural	Gravel	1399	6.5	9092	2012	3	0	4	$ 4,661	$ 4,661	$ -	$ 5,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
3165		Roads - Road S	10th SR - 16th Line - 17th Line	16TH LINE	17TH LINE	Rural	Gravel	1356	6	8138	2011	3	0	5	$ 5,973	$ 5,973	$ -	$ 6,000	0	5	5	Average	Possible	Moderate	M	2	2013	10	2013	2017	2023	1					20	2017	2017	2020		1
5111		Roads - Road S	11th Line - 10th Sr to Bellwood Rd/County Rd 5	10TH SIDEROAD	Bellwood Rd/County Rd 5	Rural	Gravel	3960	6	23760	2015	3	2	1	$ 14,084	$ 4,695	$ 9,390	$ 15,000	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
5110		Roads - Road S	11th LINE - 15 SR to 20th SR	BELWOOD ROAD/County Rd 5	20TH SIDEROAD	Rural	Gravel	3076	7	21535	2015	3	2	1	$ -	$ 2,496	$ 4,992	$ 7,500	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
2446		Roads - Road S	11th Line - 20th SR - County Rd 109	20TH SIDEROAD	COUNTY ROAD 109	Rural	Gravel	466	6	2798	2013	3	0	3	$ 5,196	$ 5,196	$ -	$ 6,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
5112		Roads - Road S	11th Line - County Rd 3 to 10th Sr	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3048	6	18286	2015	3	2	1	$ -	$ 4,873	$ 9,746	$ 15,000	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
3160		Roads - Road S	11th Line - East Garafraxa / Erin TL - County Road 3	0.4 kms S. of COUNTY ROAD 3	COUNTY ROAD 3	Rural	Gravel	3065	6	18391	2011	3	0	5	$ 10,547	$ 12,865	$ 2,318	$ 11,000	0	5	5	Average	Possible	Moderate	M	2	2013	10	2013	2017	2023	1					20	2017	2017	2020		1
5113		Roads - Road S	12th Line - 10th Sr to Grand River Bridge #7	10TH SIDEROAD	0.6 km S. of 15TH SIDEROAD	Rural	Gravel	2250	7	15749	2015	3	2	1	$ -	$ 3,328	$ 6,656	$ 10,000	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
5143		Roads - Road S	12th Line - County Rd 3 to 10th Line	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3043	7	21301	2015	3	2	1	$ -	$ 4,101	$ 8,201	$ 12,500	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
5144		Roads - Road S	12th Line - East Garafraxa/Erin Townline to County Rd 3	EAST GARAFRAXA - ERIN TOWNLINE	COUNTY ROAD 3	Rural	Gravel	3038	7	21266	2015	3	2	1	$ -	$ 3,863	$ 7,726	$ 12,000	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
2491		Roads - Road S	12TH LINE - From: 0.6 km S. of 15TH SIDEROAD To: 15TH SIDEROAD	0.6 km S. of 15TH SIDEROAD	15TH SIDEROAD	Rural	Gravel	802	8	6417	2007	3	0	9	$ 2,697	$ 2,697	$ -	$ 5,000	0	5	5	Average	Possible	Moderate	M	2	2009	10	2009	2017	2027	1					20	2017	2017	2020		1
4015		Roads - Road S	13th Line - 10th SR - Grand River	10TH SIDEROAD	GRAND RIVER	Rural	Gravel	2244	7	15706	2012	3	0	4	$ 11,118	$ 12,544	$ 1,426	$ 12,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
2993		Roads - Road S	13th Line - 15th SR - County Rd 3	15TH SIDEROAD	COUNTY ROAD 109	Rural	Gravel	1723	7	12064	2013	3	0	3	$ 12,923	$ 12,923	$ -	$ 13,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
5145		Roads - Road S	13th Line - County Rd 3 to 10th SR	0.1 kms N. of COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3163	7	22141	2015	3	2	1	$ -	$ 5,111	$ 10,222	$ 16,000	7		7	Good	Unlikely	Moderate	M	2	2017	10	2017	2017	2020	1					0	2017	2017	2020		1
5064		Roads - Road S	13TH LINE - From: 0.6 kms N. of EAST GARAFRAXA - ERIN TOWNLINE To: COUNTY ROAD 3	0.6 kms N. of EAST GARAFRAXA - ERIN TOWNLINE	COUNTY ROAD 3	Rural	Gravel	2078	7	14546	2014	3	1	2	$ -	$ 11,664	$ 5,832	$ 18,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
2992		Roads - Road S	13TH LINE - From: EAST GARAFRAXA - ERIN TOWNLINE To: 0.6 kms N. of EAST GARAFRAX	EAST GARAFRAXA - ERIN TOWNLINE	0.6 kms N. of EAST GARAFRAXA - ERIN TOWNLINE	Rural	Gravel	626	7	4385	2010	3	0	6	$ 9,210	$ 9,210	$ -	$ 10,000	0	5	5	Average	Possible	Moderate	M	2	2012	10	2012	2017	2024	1					20	2017	2017	2020		1
2427		Roads - Road S	13th Line - Grand River - 15th SR	GRAND RIVER	15TH SIDEROAD	Rural	Gravel	823	7	5764	2013	3	0	3	$ 6,081	$ 6,081	$ -	$ 7,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
4019		Roads - Road S	15th Line - 10th SR - County Rd 109	10TH SIDEROAD	COUNTY ROAD 109	Rural	Gravel	2908	6	17449	2012	3	0	4	$ 11,069	$ 11,069	$ -	$ 12,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
4018		Roads - Road S	15th Line - County Rd 3 - 10th SR	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3395	6	20371	2012	3	0	4	$ 15,342	$ 15,342	$ -	$ 16,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
2488		Roads - Road S	15TH LINE - From: 0.7 kms N. of EAST GARAFRAXA - ERIN TOWNLINE To: County Rd 3	0.7 kms N. of EAST GARAFRAXA - ERIN TOWNLINE	County Rd 3	Rural	Gravel	2091	7	14639	2006	3	0	10	$ 12,103	$ 12,103	$ -	$ 13,000	0	5	5	Average	Possible	Moderate	M	2	2008	10	2008	2017	2028	1					20	2017	2017	2020		1
2449		Roads - Road S	15TH SIDEROAD - From: 0.4 kms W. of COUNTY ROAD 24 To: COUNTY ROAD 24	0.4 kms W. of COUNTY ROAD 24	COUNTY ROAD 24	Rural	Gravel	369	5	1847	2008	3	0	8	$ 2,216	$ 2,216	$ -	$ 3,000	0	5	5	Average	Possible	Moderate	M	2	2010	10	2010	2017	2026	1					20	2017	2017	2020		1
2433		Roads - Road S	15TH SIDEROAD - From: 13TH LINE To: 0.3 kms E. of 13TH LINE	13TH LINE	0.3 kms E. of 13TH LINE	Rural	Gravel	326	5.5	1793	2003	3	0	13	$ 1,794	$ 1,794	$ -	$ 2,000	0	5	5	Average	Possible	Moderate	M	2	2005	10	2005	2017	2031	1					20	2017	2017	2020		1
4014		Roads - Road S	15th SR - 12th Line - 13th Line	COUNTY ROAD 5	13TH LINE	Rural	Gravel	1469	6	8813	2012	3	0	4	$ 9,370	$ 9,370	$ -	$ 10,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
4017		Roads - Road S	15th SR - County Rd 24 - County Rd 109	COUNTY ROAD 24	0.7 kms E. of COUNTY ROAD 24	Rural	Gravel	1175	7	8226	2012	3	0	4	$ 5,826	$ 5,826	$ -	$ 6,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
2403		Roads - Road S	15th SR - East Garafraxa / West Garafraxa TL - 9th Line	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE	COUNTY ROAD 5	Rural	Gravel	1383	7	9678	2013	3	0	3	$ 15,176	$ 15,176	$ -	$ 16,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
4020		Roads - Road S	16th Line - 10th SR - County Rd 109	10TH SIDEROAD	COUNTY ROAD 109	Rural	Gravel	2041	7	14289	2012	3	0	4	$ 8,156	$ 8,156	$ -	$ 9,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
3163		Roads - Road S	16th Line - County Rd 3 - 10th SR	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3162	7	22134	2013	3	0	3	$ 19,443	$ 19,443	$ -	$ 20,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
2975		Roads - Road S	16th Line - East Garafraxa / Erin TL - County Rd 3	EAST GARAFRAXA - ERIN TOWNLINE	COUNTY ROAD 3	Rural	Gravel	2975	7	20824	2013	3	0	3	$ 26,292	$ 26,292	$ -	$ 27,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
4021		Roads - Road S	18th Line - East Garafraxa / Caledon TL - County Rd 3	EAST GARAFRAXA - ERIN TOWNLINE	COUNTY ROAD 3	Rural	Gravel	3068	6	18407	2012	3	0	4	$ 23,013	$ 23,013	$ -	$ 24,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
4023	2481	Roads - Road S	19th Line - County Rd 3 - County Rd 109	COUNTY ROAD 3	COUNTY ROAD 109	Rural	Gravel	1961	7	13728	2012	3	0	4	$ 12,817	$ 12,817	$ -	$ 13,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
4022		Roads - Road S	19th Line - East Garafraxa / Caledon TL - County Rd 3	East Garafraxa/Caledon Townline	County Rd 3	Rural	Gravel	3720	7	26040	2012	3	0	4	$ 22,819	$ 22,819	$ -	$ 23,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
2459		Roads - Road S	5TH SIDEROAD - From: COUNTY ROAD 3 To: 19TH LINE	COUNTY ROAD 3	19TH LINE	Rural	Gravel	338	5.5	1859	2006	3	0	10	$ 1,956	$ 1,956	$ -	$ 2,500	0	5	5	Average	Possible	Moderate	M	2	2008	10	2008	2017	2028	1					20	2017	2017	2020		1
4013		Roads - Road S	9th Line - 15th SR - 20th SR	15TH SIDEROAD	20TH SIDEROAD	Rural	Gravel	3084	7	21586	2012	3	0	4	$ 22,479	$ 22,479	$ -	$ 23,000	0	5	5	Average	Possible	Moderate	M	2	2014	10	2014	2017	2022	1					20	2017	2017	2020		1
2962		Roads - Road S	9th Line - 20th SR - County Rd 109	20TH SIDEROAD	COUNTY ROAD 109	Rural	Gravel	2200	7	15401	2013	3	0	3	$ 13,236	$ 13,236	$ -	$ 14,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
5058		Roads - Road S	9TH LINE - From: COUNTY ROAD 3 To: 10TH SIDEROAD	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3077	7.3	22463	2014	3	1	2	$ -	$ 7,970	$ 3,985	$ 12,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
5057		Roads - Road S	9TH LINE - From: EAST GARAFRAXA - ERIN TOWNLINE To: COUNTY ROAD 3	EAST GARAFRAXA - ERIN TOWNLINE	COUNTY ROAD 3	Rural	Gravel	3072	6	18433	2014	3	1	2	$ -	$ 6,221	$ 3,110	$ 10,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
		Roads - Road S	Aline - Cross Rd Culvert 250 to County Rd 3	Culvert 250	County rd 3	Rural	Gravel	1560	7	10920	2010	3	0	6	$ 7,800	$ 7,800	$ -	$ 8,500	0	5	5	Average	Possible	Moderate	M	2	2012	10	2012	2017	2024	1					20	2017	2017	2020		1
5054		Roads - Road S	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE - From: EAST GARAFRAXA - ERIN TOWN	EAST GARAFRAXA - ERIN TOWNLINE	COUNTY ROAD 3	Rural	Gravel	3096	6	18574	2014	3	1	2	$ -	$ 9,331	$ 4,666	$ 14,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
2506		Roads - Road S	East Garafraxa / Erin TL - East Garafraxa /West Garafraxa TL - 9th Line	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE	9TH LINE	Rural	Gravel	1397	7	9777	2013	3	0	3	$ 15,525	$ 15,525	$ -	$ 16,000	0	5	5	Average	Possible	Moderate	M	2	2015	10	2015	2017	2021	1					20	2017	2017	2020		1
5052		Roads - Road S	EAST GARAFRAXA/WEST GARAFRAXA TL - COUNTY RD 3 TO 10TH SIDEROAD	COUNTY ROAD 3	10TH SIDEROAD	Rural	Gravel	3072	8	24576	2014	3	1	2	$ -	$ 10,109	$ 5,054	$ 16,000	3	5	5	Average	Possible	Moderate	M	2	2016	10	2016	2017	2020	1					0	2016	2017	2020		1
2487		Roads - Road S	15TH LINE - From: EAST GARAFRAXA - ERIN TOWNLINE To: 0.7 kms N. of EAST GARAFRAX	EAST GARAFRAXA - ERIN TOWNLINE	0.7 kms N. of EAST GARAFRAXA - ERIN TOWNLINE	Rural	Surface Treatment	668	7	4677	2007	6	0	9	$ 13,138	$ 13,138	$ -	$ 14,000	0	5	5	Average	Possible	Moderate	M	2	2011	10	2012	2017	2027	1					20	2017	2027	2033		11

East Garafraxa
Roads - Road Base Inventory

Fixed Asset #	Map Link	Subtype	Asset Name - Road Base	Street ID	From	To	Length (m)	Classification	Surface Material	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization System	2015 Net Book Value System	Replacement Cost/Section	Condition Based On Useful Life	Condition from Town	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Current Leveles of Service Replacement/Improvement Year Based on Current Levels: Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then expected for age	Expected Levels of Service + Town Input Replacement/Improvement Year Based on Expected: Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
												14	106	$5,821,784	$1,262,010	$3,806,542	$20,956,905			6					2								$0							
2938		Roads - Road Base Valuation	10TH LIINE							1869	60	0	147	$ 2,718	$ 2,718	$ -	$ 127,594	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2782		Roads - Road Base Valuation	10TH LINE							1869	60	0	147	$ 9,733	$ 9,733	$ -	$ 456,936	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2819		Roads - Road Base Valuation	10TH LINE							1869	60	0	147	$ 9,769	$ 9,769	$ -	$ 458,642	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2826		Roads - Road Base Valuation	10TH LINE							1869	60	0	147	$ 28,982	$ 28,982	$ -	$ 206,864	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2839		Roads - Road Base Valuation	10TH LINE							1869	60	0	147	$ 9,742	$ 9,742	$ -	$ 457,354	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2940		Roads - Road Base Valuation	10TH LINE							1869	60	0	147	$ 1,465	$ 1,465	$ -	$ 68,773	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
3003		Roads - Road Base Valuation	10TH LINE							2010	60	54	6	$ 31,018	$ 3,102	$ 27,917	$ 31,000	9		9	Very Good	Rare	Moderate	L	1	2052		2052	2052	2112	36					0	2052	2052	2112	36
4009		Roads - Road Base Valuation	10TH LINE							2009	60	53	7	$ 105,067	$ 12,258	$ 92,809	$ 105,000	9		9	Very Good	Rare	Moderate	L	1	2051		2051	2051	2111	35					0	2051	2051	2111	35
4010		Roads - Road Base Valuation	10TH LINE							2009	60	53	7	$ 55,441	$ 6,468	$ 48,973	$ 55,400	9		9	Very Good	Rare	Moderate	L	1	2051		2051	2051	2111	35					0	2051	2051	2111	35
4011		Roads - Road Base Valuation	10TH LINE							2009	60	53	7	$ 31,254	$ 3,646	$ 27,607	$ 31,200	9		9	Very Good	Rare	Moderate	L	1	2051		2051	2051	2111	35					0	2051	2051	2111	35
4012		Roads - Road Base Valuation	10TH LINE							2009	60	53	7	$ 73,163	$ 8,536	$ 64,627	$ 73,000	9		9	Very Good	Rare	Moderate	L	1	2051		2051	2051	2111	35					0	2051	2051	2111	35
2785		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,432	$ 4,432	$ -	$ 208,078	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2792		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,443	$ 4,443	$ -	$ 208,612	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2796		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,346	$ 4,346	$ -	$ 204,022	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2799		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,357	$ 4,357	$ -	$ 204,557	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2817		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,607	$ 4,607	$ -	$ 216,296	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2822		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,469	$ 4,469	$ -	$ 209,822	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2833		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,192	$ 4,192	$ -	$ 196,811	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					35	2037	2037	2097	21
2847		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,314	$ 4,314	$ -	$ 202,544	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2870		Roads - Road Base Valuation	10TH SIDEROAD							1869	60	0	147	$ 4,333	$ 4,333	$ -	$ 203,445	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2773		Roads - Road Base Valuation	11TH LINE							2006	60	50	10	$ 77,168	$ 12,813	$ 64,355	$ 80,000	8		8	Good	Unlikely	Moderate	M	2	2048		2048	2048	2108	32					0	2048	2048	2108	32
2779		Roads - Road Base Valuation	11TH LINE							1869	60	0	147	$ 1,350	$ 1,350	$ -	$ 63,369	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2800		Roads - Road Base Valuation	11TH LINE							2000	60	44	16	$ 67,648	$ 18,039	$ 49,609	$ 80,000	7		7	Good	Unlikely	Moderate	M	2	2042		2042	2042	2102	26					0	2042	2042	2102	26
2836		Roads - Road Base Valuation	11TH LINE							1869	60	0	147	$ 9,829	$ 9,829	$ -	$ 461,472	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2843		Roads - Road Base Valuation	11TH LINE							1869	60	0	147	$ 30,768	$ 30,768	$ -	$ 69,951	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2883		Roads - Road Base Valuation	11TH LINE							1869	60	0	147	$ 8,452	$ 8,452	$ -	$ 396,806	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2924		Roads - Road Base Valuation	11TH LINE							2001	60	45	15	$ 69,752	$ 17,438	$ 52,314	$ 80,000	8		8	Good	Unlikely	Moderate	M	2	2043		2043	2043	2103	27					0	2043	2043	2103	27
2926		Roads - Road Base Valuation	11TH LINE							2002	60	46	14	$ 71,208	$ 16,615	$ 54,593	$ 80,000	8		8	Good	Unlikely	Moderate	M	2	2044		2044	2044	2104	28					0	2044	2044	2104	28
2928		Roads - Road Base Valuation	11TH LINE							2004	60	48	12	$ 74,544	$ 14,909	$ 59,635	$ 80,000	8		8	Good	Unlikely	Moderate	M	2	2046		2046	2046	2106	30					0	2046	2046	2106	30
2930		Roads - Road Base Valuation	11TH LINE							2005	60	49	11	$ 75,944	$ 13,923	$ 62,021	$ 80,000	8		8	Good	Unlikely	Moderate	M	2	2047		2047	2047	2107	31					0	2047	2047	2107	31
2935		Roads - Road Base Valuation	11TH LINE							2008	60	52	8	$ 88,000	$ 12,793	$ 75,207	$ 110,000	9		9	Very Good	Rare	Moderate	L	1	2050		2050	2050	2110	34					0	2050	2050	2110	34
3161		Roads - Road Base Valuation	11th Line							2011	60	55	5	$ 75,811	$ 6,318	$ 69,493	$ 76,000	9		9	Very Good	Rare	Moderate	L	1	2053		2053	2053	2113	37					0	2053	2053	2113	37
5036		Roads - Road Base Valuation	11th Line - East Garafraxa / Erin TL - County Road 3							2012	60	56	4	$ 28,137	$ 28,137	$ -	$ 28,137	9		9	Very Good	Rare	Moderate	L	1	2054		2054	2054	2114	38					0	2054	2054	2114	38
2794		Roads - Road Base Valuation	12TH LINE							1869	60	0	147	$ 9,706	$ 9,706	$ -	$ 455,698	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2815		Roads - Road Base Valuation	12TH LINE							1869	60	0	147	$ 7,188	$ 7,188	$ -	$ 337,483	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2834		Roads - Road Base Valuation	12TH LINE							1869	60	0	147	$ 9,722	$ 9,722	$ -	$ 456,439	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2882		Roads - Road Base Valuation	12TH LINE							1869	60	0	147	$ 2,563	$ 2,563	$ -	$ 120,311	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2788		Roads - Road Base Valuation	13TH LINE							1980	60	24	36	$ 3,911	$ 2,347	$ 1,565	$ 10,408	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2814		Roads - Road Base Valuation	13TH LINE							1998	60	42	18	$ 64,392	$ 19,318	$ 45,074	$ 80,000	7		7	Good	Unlikely	Moderate	M	2	2040		2040	2040	2100	24					0	2040	2040	2100	24
2829		Roads - Road Base Valuation	13TH LINE							1869	60	0	147	$ 5,506	$ 5,506	$ -	$ 258,513	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					35	2037	2037	2097	21
2866		Roads - Road Base Valuation	13TH LINE							1869	60	0	147	$ 9,800	$ 9,800	$ -	$ 460,071	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2876		Roads - Road Base Valuation	13TH LINE							1869	60	0	147	$ 2,001	$ 2,001	$ -	$ 93,962	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2877		Roads - Road Base Valuation	13TH LINE							1980	60	24	36	$ 12,378	$ 7,427	$ 4,951	$ 32,938	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2880		Roads - Road Base Valuation	13TH LINE							1869	60	0	147	$ 10,106	$ 10,106	$ -	$ 474,454	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2776		Roads - Road Base Valuation	15TH LINE							1869	60	0	147	$ 6,681	$ 6,681	$ -	$ 313,684	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2848		Roads - Road Base Valuation	15TH LINE							2007	60	51	9	$ 98,537	$ 14,781	$ 83,757	$ 100,231	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2861		Roads - Road Base Valuation	15TH LINE							2008	60	52	8	$ 92,134	NULL	NULL	$ 92,134	9		9	Very Good	Rare	Moderate	L	1	2050		2050	2050	2110	34					0	2050	2050	2110	34
2862		Roads - Road Base Valuation	15TH LINE							2008	60	52	8	$ 344,103	NULL	NULL	$ 344,103	9		9	Very Good	Rare	Moderate	L	1	2050		2050	2050	2110	34					0	2050	2050	2110	34
2867		Roads - Road Base Valuation	15TH LINE							1869	60	0	147	$ 10,848	$ 10,848	$ -	$ 509,272	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2769		Roads - Road Base Valuation	15TH SIDEROAD							1999	60	43	17	$ 65,656	$ 18,603	$ 47,053	$ 80,000	7		7	Good	Unlikely	Moderate	M	2	2041		2041	2041	2101	25					0	2041	2041	2101	25
2775		Roads - Road Base Valuation	15TH SIDEROAD							1869	60	0	147	$ 1,259	$ 1,259	$ -	$ 59,093	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2797		Roads - Road Base Valuation	15TH SIDEROAD							1869	60	0	147	$ 4,417	$ 4,417	$ -	$ 207,377	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2827		Roads - Road Base Valuation	15TH SIDEROAD							1869	60	0	147	$ 1,041	$ 1,041	$ -	$ 48,890	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2837		Roads - Road Base Valuation	15TH SIDEROAD							1869	60	0	147	$ 4,693	$ 4,693	$ -	$ 220,328	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2846		Roads - Road Base Valuation	15TH SIDEROAD							1869	60	0	147	$ 1,180	$ 1,180	$ -	$ 55,410	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2801		Roads - Road Base Valuation	16TH LINE							1869	60	0	147	$ 10,102	$ 10,102	$ -	$ 474,295	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2811		Roads - Road Base Valuation	16TH LINE							1869	60	0	147	$ 6,522	$ 6,522	$ -	$ 306,184	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2820		Roads - Road Base Valuation	16TH LINE							1869	60	0	147	$ 9,505	$ 9,505	$ -	$ 446,229	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2865		Roads - Road Base Valuation	17TH LINE							2007	60	51	9	$ 31,378	$ 5,299	$ 41,781	$ 31,918	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2868		Roads - Road Base Valuation	17TH LINE							1996	60	40	20	$ 360,079	NULL	NULL	$ 460,224	7		7	Good	Unlikely	Moderate	M	2	2038		2038	2038	2098	22					0	2038	2038	2098	22
2871		Roads - Road Base Valuation	17TH LINE							2007	60	51	9	$ 453,485	$ 68,615	$ 400,571	$ 461,280	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2878		Roads - Road Base Valuation	17TH LINE							2007	60	51	9	$ 136,236	$ 21,028	$ 130,910	$ 138,578	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2828		Roads - Road Base Valuation	18TH LINE							1869	60	0	147	$ 9,801	$ 9,801	$ -	$ 460,163	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					35	2037	2037	2097	21
2884		Roads - Road Base Valuation	18TH LINE							1869	60	0	147	$ 2,861	$ 2,861	$ -	$ 134,339	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2807		Roads - Road Base Valuation	19TH LINE							1869	60	0	147	$ 8,174	$ 8,174	$ -	$ 383,767	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2808		Roads - Road Base Valuation	19TH LINE							1869	60	0	147	$ 1,085	$ 1,085	$ -	$ 50,933	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2874		Roads - Road Base Valuation	19TH LINE							1869	60	0	147	$ 6,266	$ 6,266	$ -	$ 294,182	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2835		Roads - Road Base Valuation	20TH SR - 10th Line - 11th Line							2007	60	51	9	$ 203,122	$ 30,468	$ 172,654	$ 206,614	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2845		Roads - Road Base Valuation	20TH SR - 11th Line to County Rd 109							2007	60	51	9	$ 104,559	$ 15,684	$ 88,875	$ 106,356	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2818		Roads - Road Base Valuation	20TH SR - 9th Line - 10th Line							2007	60	51	9	$ 199,716	$ 29,957	$ 169,759	$ 203,149	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2774		Roads - Road Base Valuation	20TH SR - East Garafraxa / West Garafraxa TL - 9th Line							2007	60	51	9	$ 204,592	$ 30,689	$ 173,904	$ 208,109	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2832		Roads - Road Base Valuation	5TH SIDEROAD							1869	60	0	147	$ 1,080	$ 1,080	$ -	$ 50,704	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					35	2037	2037	2097	21
2790		Roads - Road Base Valuation	9TH LINE							1869	60	0	147	$ 9,815	$ 9,815	$ -	$ 460,813	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2793		Roads - Road Base Valuation	9TH LINE							1869	60	0	147	$ 9,831	$ 9,831	$ -	$ 461,568	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2816		Roads - Road Base Valuation	9TH LINE							1869	60	0	147	$ 9,852	$ 9,852	$ -	$ 462,547	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2823		Roads - Road Base Valuation	9TH LINE							1869	60	0	147	$ 7,029	$ 7,029	$ -	$ 330,022	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2778		Roads - Road Base Valuation	A LINE							2008	60	52	8	$ 18,162	$ 2,422	$ 15,741	$ 18,162	9		9	Very Good	Rare	Moderate	L	1	2050		2050	2050	2110	34					0	2050	2050	2110	34
2780		Roads - Road Base Valuation	A LINE							1869	60	0	147	$ 1,352	$ 1,352	$ -	$ 63,459	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2806		Roads - Road Base Valuation	A LINE							1869	60	0	147	$ 6,342	$ 6,342	$ -	$ 297,755	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2869		Roads - Road Base Valuation	A LINE							2004	60	48	12	$ 77,158	$ 15,432	$ 61,726	$ 82,805	8		8	Good	Unlikely	Moderate	M	2	2046		2046	2046	2106	30					0	2046	2046	2106	30
4007		Roads - Road Base Valuation	A LINE							2009	60	53	7	$ 16,067	$ 1,874	$ 14,192	$ 148,800	9		9	Very Good	Rare	Moderate	L	1	2051		2051	2051	2111	35					0	2051	2051	2111	35
4008		Roads - Road Base Valuation	A LINE							2009	60	53	7	$ 6,886	$ 803	$ 6,082	$ 63,500	9		9	Very Good	Rare	Moderate	L	1	2051		2051	2051	2111	35					0	2051	2051	2111	35
2850		Roads - Road Base Valuation	BROOKHAVEN CR.							2005	60	49	11	$ 308,900	$ 56,632	$ 252,269	$ 325,398	8		8	Good	Unlikely	Moderate	M	2	2047		2047	2047	2107	31					0	2047	2047	2107	31
2810		Roads - Road Base Valuation	CEDAR PLACE							1980	60	24	36	$ 8,426	$ 5,056	$ 3,371	$ 22,423	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2879		Roads - Road Base Valuation	EAST GARAFRAXA - ERIN TOWNLINE							1869	60	0	147	$ 4,463	$ 4,463	$ -	$ 209,510	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2789		Roads - Road Base Valuation	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE							1869	60	0	147	$ 9,891	$ 9,891	$ -	$ 464,349	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2791		Roads - Road Base Valuation	EAST GARAFRAXA - WEST GARAFRAXA TOWNLINE							1869	60	0	147	$ 9,815	$ 9,815	$ -	$ 460,791	0	5	5	Average	Possible	Moderate	M	2	1911		1911	2017	2165	1					20	2028	2028	2088	12
2798		Roads - Road Base Valuation	East Garafraxa / Caledon Townline - 19th Line to A Line							2007	60	51	9	$ 203,352	$ 30,537	$ 174,608	$ 206,847	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2844		Roads - Road Base Valuation	East Garafraxa / Caledon Townline - East Garafraxa / Erin Townline to 19th Line							2007	60	51	9	$ 110,778	$ 16,635	$ 95,119	$ 112,682	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2770		Roads - Road Base Valuation	East Garafraxa / Erin Townline - 15th Line to 16th Line							2007	60	51	9	$ 202,399	$ 30,394	$ 173,791	$ 205,878	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2771		Roads - Road Base Valuation	East Garafraxa / Erin Townline - 16th Line to 17th Line							2007	60	51	9	$ 199,971	$ 30,030	$ 171,706	$ 203,409	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2772		Roads - Road Base Valuation	East Garafraxa / Erin Townline - 17th Line to 18th Line							2007	60	51	9	$ 200,831	$ 30,159	$ 172,444	$ 204,283	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2824		Roads - Road Base Valuation	East Garafraxa / Erin Townline - 18th Line to Winston Churchill							2007	60	51	9	$ 84,789	$ 12,733	$ 72,804	$ 86,246	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2803		Roads - Road Base Valuation	East Garafraxa / Erin Townline - County Rd 24 to 15th Line							2007	60	51	9	$ 197,354	$ 29,668	$ 171,042	$ 200,746	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2787		Roads - Road Base Valuation	GRAND CRESCENT							1972	60	16	44	$ 2,380	$ 1,745	$ 635	$ 12,597	3	5	5	Average	Possible	Moderate	M	2	2014		2014	2017	2077	1					0	2016	2017	2077	1
2842		Roads - Road Base Valuation	GRAND CRESCENT							1972	60	16	44	$ 2,500	$ 1,833	$ 667	$ 13,233	3	5	5	Average	Possible	Moderate	M	2	2014		2014	2017	2077	1					0	2016	2017	2077	1
2777		Roads - Road Base Valuation	GREENWOOD CRESCENT							1980	60	24	36	$ 29,373	$ 17,624	$ 11,749	$ 78,160	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2831		Roads - Road Base Valuation	HILLTOP CRESCENT							1980	60	24	36	$ 28,817	$ 17,290	$ 11,527	$ 76,682	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					35	2043	2043	2103	27
3215		Roads - Road Base Valuation	John Street (formerly Church) replaced/rebuilt							2012	60	56	4	$ 22,337	$ 1,489	$ 20,848	$ 25,000	9		9	Very Good	Rare	Moderate	L	1	2054		2054	2054	2114	38					0	2054	2054	2114	38
2840		Roads - Road Base Valuation	MAPLE STREET							1972	60	16	44	$ 1,938	$ 1,421	$ 517	$ 10,259	3	5	5	Average	Possible	Moderate	M	2	2014		2014	2017	2077	1					0	2016	2017	2077	1
2841		Roads - Road Base Valuation	MAPLE STREET							1972	60	16	44	$ 922	$ 676	$ 246	$ 4,882	3	5	5	Average	Possible	Moderate	M	2	2014		2014	2017	2077	1					0	2016	2017	2077	1
2856		Roads - Road Base Valuation	MAYWOOD DRIVE							1980	60	24	36	$ 13,987	$ 8,392	$ 5,595	$ 37,220	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2809		Roads - Road Base Valuation	OLD CARRIAGE ROAD							1980	60	24	36	$ 8,188	$ 4,913	$ 3,275	$ 21,789	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2813		Roads - Road Base Valuation	OLD CARRIAGE ROAD							1980	60	24	36	$ 25,289	$ 15,173	$ 10,116	$ 67,294	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2830		Roads - Road Base Valuation	OLD CARRIAGE ROAD							1980	60	24	36	$ 28,203	$ 16,922	$ 11,281	$ 75,047	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					35	2043	2043	2103	27
2852		Roads - Road Base Valuation	OLD CARRIAGE ROAD							1980	60	24	36	$ 14,071	$ 8,443	$ 5,628	$ 37,443	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2854		Roads - Road Base Valuation	OLD CARRIAGE ROAD							1980	60	24	36	$ 14,311	$ 8,586	$ 5,724	$ 38,081	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2872		Roads - Road Base Valuation	OLD CARRIAGE ROAD							1980	60	24	36	$ 8,395	$ 5,037	$ 3,358	$ 22,339	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2804		Roads - Road Base Valuation	RAYBURN MEADOWS							2003	60	47	13	$ 138,200	$ 29,943	$ 108,256	$ 150,676	8		8	Good	Unlikely	Moderate	M	2	2045		2045	2045	2105	29					0	2045	2045	2105	29
2805		Roads - Road Base Valuation	RAYBURN MEADOWS							2003	60	47	13	$ 34,610	$ 7,499	$ 27,112	$ 37,735	8		8	Good	Unlikely	Moderate	M	2	2045		2045	2045	2105	29					0	2045	2045	2105	29
2853		Roads - Road Base Valuation	SPRINGVIEW COURT							1980	60	24	36	$ 8,238	$ 4,943	$ 3,295	$ 21,923	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2786		Roads - Road Base Valuation	VICTORIA BOULEVARD							1972	60	16	44	$ 11,097	$ 8,138	$ 2,959	$ 58,747	3	5	5	Average	Possible	Moderate	M	2	2014		2014	2017	2077	1					0	2016	2017	2077	1
2825		Roads - Road Base Valuation	Winston Churchill Boulevard - East Garafraxa / Erin Townline East end to Winston Churchill north end							2007	60	51	9	$ 70,937	$ 10,653	$ 60,910	$ 72,156	9		9	Very Good	Rare	Moderate	L	1	2049		2049	2049	2109	33					0	2049	2049	2109	33
2781		Roads - Road Base Valuation	WOODLAND DRIVE							1980	60	24	36	$ 16,843	NULL	NULL	$ 44,820	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6
2860		Roads - Road Base Valuation	WOODLAND DRIVE							1980	60	24	36	$ 44,842	$ 26,905	$ 17,937	$ 119,323	4	5	5	Average	Possible	Moderate	M	2	2022		2022	2022	2082	6					0	2022	2022	2082	6

East Garafraxa
Roads - Barrier Inventory

FIXED ASSET ID	Subtype	Asset Name	Description	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure
						40	10	$ 214,183	$ 61,703	$ 152,481	$ 226,011			8.3				
2246	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 7		1993	50	27	23	$2,301	$1,764	$537	$4,151	5		5	Average	Possible	Minor	M
2249	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 10		1993	50	27	23	$2,247	$1,723	$524	$2,009	5		5	Average	Possible	Minor	M
2250	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 9		1993	50	27	23	$1,368	$1,049	$319	$749	5		5	Average	Possible	Minor	M
2251	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 8		1993	50	27	23	$1,733	$1,328	$404	$1,965	5		5	Average	Possible	Minor	M
2252	Roads - Barrier	Road Barrier Concrete - Bridge 8		1993	50	27	23	$1,753	$1,344	$409	$1,926	5		5	Average	Possible	Minor	M
2253	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 16		1979	50	13	37	$788	$788	$0	$2,309	3	5	5	Average	Possible	Minor	M
2254	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 15		1979	50	13	37	$798	$798	$0	$2,337	3	5	5	Average	Possible	Minor	M
2257	Roads - Barrier	Road Barrier Wood - Bridge 9		2008	50	42	8	$2,589	$690	$1,898	$2,589	8		8	Good	Unlikely	Minor	L
2262	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 23		2007	50	41	9	$2,297	$689	$1,608	$2,432	8		8	Good	Unlikely	Minor	L
2263	Roads - Barrier	Road Barrier Guide Posts - Bridge 9		1987	50	21	29	$2,093	$2,024	$70	$3,483	4	5	5	Average	Possible	Minor	M
2264	Roads - Barrier	Road Barrier Guide Posts - Bridge 8		1987	50	21	29	$2,488	$2,405	$83	$4,140	4	5	5	Average	Possible	Minor	M
2267	Roads - Barrier	Road Barrier Guide Posts - Bridge 7		1987	50	21	29	$1,843	$1,781	$61	$3,066	4	5	5	Average	Possible	Minor	M
2268	Roads - Barrier	Road Barrier Guide Posts - Bridge 6		1987	50	21	29	$1,800	$1,740	$60	$2,995	4	5	5	Average	Possible	Minor	M
2269	Roads - Barrier	Road Barrier Guide Posts - Bridge 13		2003	50	37	13	$2,747	$1,190	$1,557	$1,175	7		7	Good	Unlikely	Minor	L
2271	Roads - Barrier	Road Barrier Guide Posts - Bridge 10		2003	50	37	13	$2,143	$929	$1,215	$1,258	7		7	Good	Unlikely	Minor	L
2273	Roads - Barrier	Road Barrier Guide Posts - Bridge 12		2003	50	37	13	$1,672	$724	$947	$1,224	7		7	Good	Unlikely	Minor	L
2274	Roads - Barrier	Road Barrier Guide Posts - Bridge 11		2003	50	37	13	$2,118	$918	$1,200	$1,221	7		7	Good	Unlikely	Minor	L
2275	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 10		1993	50	27	23	$1,445	$1,108	$337	$2,775	5	5	5	Average	Possible	Minor	M
2276	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 9		1993	50	27	23	$2,613	$2,004	$610	$1,937	5	5	5	Average	Possible	Minor	M
2277	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 8		1993	50	27	23	$3,106	$2,381	$725	$1,966	5	5	5	Average	Possible	Minor	M
2278	Roads - Barrier	Road Barrier Guide Posts - Old Carriage Rd / culvert 142		1980	50	14	36	$685	$685	$0	$1,823	3	5	5	Average	Possible	Minor	M
2279	Roads - Barrier	Road Barrier Steel Beam Guide Rail - Bridge 24		2007	50	41	9	$2,270	$681	$1,589	$3,603	8		8	Good	Unlikely	Minor	L
4025	Roads - Barrier	Road Barrier Steel Beam Guide Rail		2009	50	43	7	$119,382	$27,856	$91,526	$119,400	9		9	Very Good	Rare	Minor	L
4026	Roads - Barrier	Road Barrier Steel Beam Guide Rail - 20th SR		2011	50	45	5	$3,803	$634	$3,169	$3,800	9		9	Very Good	Rare	Minor	L
4027	Roads - Barrier	Road Barrier Steel Beam Guide Rail - 10th Line		2011	50	45	5	$6,379	$1,063	$5,316	$6,300	9		9	Very Good	Rare	Minor	L
4028	Roads - Barrier	Road Barrier Guide Rail - 11th Line		2012	50	46	4	$1,607	$214	$1,393	$1,700	9		9	Very Good	Rare	Minor	L
5105	Roads - Barrier	Road Barrier Steel Beam Guide Rail - 10th Line at Bridge #5 - East Side		2015	50	49	1	$7,545	$251	$7,293	$7,545	10		10	Very Good	Rare	Minor	L
5106	Roads - Barrier	Road Barrier Steel Beam Guide Rail - 10th Line at Bridge #5 - West Side		2015	50	49	1	$7,545	$251	$7,293	$7,545	10		10	Very Good	Rare	Minor	L
5107	Roads - Barrier	Road Barrier Steel Beam Guide Rail - 12th Line at Bridge #11 - East Side		2015	50	49	1	$7,544	$251	$7,293	$7,544	10		10	Very Good	Rare	Minor	L
5108	Roads - Barrier	Road Barrier Steel Beam Guide Rail - 12th Line at Bridge #11 - West side		2015	50	49	1	$7,545	$251	$7,293	$7,545	10		10	Very Good	Rare	Minor	L
5214	Road Barrier	Road Barrier for Bridge 03	10TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5215	Road Barrier	Road Barrier for Bridge 03	10TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5216	Road Barrier	Road Barrier for Bridge 21	12TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5217	Road Barrier	Road Barrier for Bridge 21	12TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5218	Road Barrier	Road Barrier for Bridge 04	11TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5224	Road Barrier	Road Barrier for Bridge 02	10TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5225	Road Barrier	Road Barrier for Bridge 02	10TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5226	Road Barrier	Road Barrier for Bridge 09	10TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L
5227	Road Barrier	Road Barrier for Bridge 09	10TH LINE	2005	50	39	11	$1,104	$243	$861	$1,500	8		8	Good	Unlikely	Minor	L

FIXED ASSET ID	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Current Leveles of Service – Replacement/Improvement Year Based on Current Levels Service: Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2016 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then	Expected Levels of Service – Replacement/Improvement Year Based on Expected Levels Service: Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
	1								$ -							
2246	2	2038	10	2043	2043	2093	27					0	2043	2043	2093	27
2249	2	2038	10	2043	2043	2093	27					0	2043	2043	2093	27
2250	2	2038	10	2043	2043	2093	27					0	2043	2043	2093	27
2251	2	2038	10	2043	2043	2093	27					0	2043	2043	2093	27
2252	2	2038	10	2043	2043	2093	27					0	2043	2043	2093	27
2253	2	2024	10	2029	2029	2079	13					10	2034	2034	2084	18
2254	2	2024	10	2029	2029	2079	13					10	2034	2034	2084	18
2257	1	2053	10	2058	2058	2108	42					0	2058	2058	2108	42
2262	1	2052	10	2057	2057	2107	41					0	2057	2057	2107	41
2263	2	2032	10	2037	2037	2087	21					5	2040	2040	2090	24
2264	2	2032	10	2037	2037	2087	21					5	2040	2040	2090	24
2267	2	2032	10	2037	2037	2087	21					5	2040	2040	2090	24
2268	2	2032	10	2037	2037	2087	21					5	2040	2040	2090	24
2269	1	2048	10	2053	2053	2103	37					0	2053	2053	2103	37
2271	1	2048	10	2053	2053	2103	37					0	2053	2053	2103	37
2273	1	2048	10	2053	2053	2103	37					0	2053	2053	2103	37
2274	1	2048	11	2054	2054	2105	38					0	2054	2054	2104	38
2275	2	2038	12	2044	2044	2095	28					0	2044	2044	2094	28
2276	2	2038	13	2045	2045	2097	29					0	2045	2045	2095	29
2277	2	2038	14	2045	2045	2097	29					0	2045	2045	2095	29
2278	2	2025	15	2033	2033	2086	17					10	2038	2038	2088	22
2279	1	2052	16	2060	2060	2113	44					0	2060	2060	2110	44
4025	1	2054	17	2063	2063	2117	47					0	2063	2063	2113	47
4026	1	2056	18	2065	2065	2119	49					0	2065	2065	2115	49
4027	1	2056	19	2066	2066	2121	50					0	2066	2066	2116	50
4028	1	2057	20	2067	2067	2122	51					0	2067	2067	2117	51
5105	1	2060	21	2071	2071	2127	55					0	2071	2071	2121	55
5106	1	2060	22	2071	2071	2127	55					0	2071	2071	2121	55
5107	1	2060	23	2072	2072	2129	56					0	2072	2072	2122	56
5108	1	2060	24	2072	2072	2129	56					0	2072	2072	2122	56
5214	1	2050	25	2063	2063	2121	47					0	2063	2063	2113	47
5215	1	2050	26	2063	2063	2121	47					0	2063	2063	2113	47
5216	1	2050	27	2064	2064	2123	48					0	2064	2064	2114	48
5217	1	2050	28	2064	2064	2123	48					0	2064	2064	2114	48
5218	1	2050	29	2065	2065	2125	49					0	2065	2065	2115	49
5224	1	2050	30	2065	2065	2125	49					0	2065	2065	2115	49
5225	1	2050	31	2066	2066	2127	50					0	2066	2066	2116	50
5226	1	2050	32	2066	2066	2127	50					0	2066	2066	2116	50
5227	1	2050	33	2067	2067	2129	51					0	2067	2067	2117	51

East Garafraxa
Storm/Sanitary - Catch Basin Inventory

																									Current Leveles of Service Replacement/Improvement Year Based on Current Levels Service										Expected Levels of Service Replacement/Improvement Year Based on Expected Levels Service				
Fixed Asset #	Subtype	Asset Name	Road Section GIS ID	Road Name	Road From	Road To	Easting (m)	Northing (m)	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization System	2015 Net Book Value System	Replacement Cost	Condition Based On Useful Life	Staff Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Rehabiliation Year	Rehabiliation Cost (2016)	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
											40	35	$ 41,415	$ 13,326	$ 28,089	$ 141,500			5.2					2									$ -						
5152	CatchBasin	Catch Basin - 6 MAPLE ST		MAPLE ST					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5153	CatchBasin	Catch Basin - 26 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5154	CatchBasin	Catch Basin - 27 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5155	CatchBasin	Catch Basin - 24 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5156	CatchBasin	Catch Basin - 23 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5157	CatchBasin	Catch Basin - 19 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5158	CatchBasin	Catch Basin - 20 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5159	Ditch Inlet Catch Basin	Ditch Inlet Catch Basin - 16 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5160	Ditch Inlet Catch Basin	Ditch Inlet Catch Basin - 13 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5161	CatchBasin	Catch Basin - 10 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5162	CatchBasin	Catch Basin - 9 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5163	CatchBasin	Catch Basin - 6 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5164	CatchBasin	Catch Basin - 4 GRAND CRES		GRAND CRES					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5165	CatchBasin	Catch Basin - 5 GRAND CRES		GRAND CRES					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5166	RearlotCatchbasin	Rearlot Catch Basin - 14 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5167	RearlotCatchbasin	Rearlot Catch Basin - 10 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5168	CatchBasin	Catch Basin - 13 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5169	CatchBasin	Catch Basin - 21 VICTORIA BLVD		VICTORIA BLVD					1972	75	31	44	$807	$473	$334	$5,500	4		4	Average	Possible	Moderate	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5195	CatchBasin	Catch Basin - 32 RAYBURN MEADOWS		RAYBURN MEADOWS					2003	75	62	13	$3,606	$625	$2,981	$5,500	8		8	Very Good	Rare	Moderate	L	1	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5196	CatchBasin	Catch Basin - 30 WOODLAND CRES		WOODLAND CRES					1980	75	39	36	$1,427	$685	$742	$5,500	5		5	Average	Possible	Moderate	M	2	2048	10	2056	2056	2132	40					0	2056	2056	2131	40
5197	CatchBasin	Catch Basin - 46 RAYBURN MEADOWS		RAYBURN MEADOWS					2003	75	62	13	$3,606	$625	$2,981	$5,500	8		8	Very Good	Rare	Moderate	L	1	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5198	Hickenbottom	Hickenbottom - 37 BROOKHAVEN CRES		BROOKHAVEN CRES					2005	75	64	11	$5,519	$809	$4,710	$7,500	9		9	Very Good	Rare	Moderate	L	1	2073	10	2081	2081	2157	65					0	2081	2081	2156	65
	Hickenbottom	Hickenbottom - 61 BROOKHAVEN CRES		BROOKHAVEN CRES					2005	75	64	11	$5,519	$809	$4,710	$7,500	9		9	Very Good	Rare	Moderate	L	1	2073	11	2081	2081	2157	65					0	2081	2081	2156	65
5199	CatchBasin	Catch Basin - 31 RAYBURN MEADOWS		RAYBURN MEADOWS					2003	75	62	13	$3,606	$625	$2,981	$5,500	8		8	Very Good	Rare	Moderate	L	1	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5200	CatchBasin	Catch Basin - 49 RAYBURN MEADOWS		RAYBURN MEADOWS					2003	75	62	13	$3,606	$625	$2,981	$5,500	8		8	Very Good	Rare	Moderate	L	1	2071	10	2079	2079	2155	63					0	2079	2079	2154	63

East Garafraxa
Storm/Sanitary - Gravity Main Inventory

																														Current Leveles of Service Replacement/Improvement Year Based on Current Levels Service									Expected Levels of Service + Town Input Replacement/Improvement Year Based on Expected Levels Service				
Fixed Asset #	Subtype	Street ID	Street Name	From	To	Description	Asset Name	Diameter (inches)	Length (m)	Upstream Catch Basin	Downstream Catch Basin	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization System	2015 Net Book Value System	Replacement Cost	Condition Based On Useful Life	Condition from Town	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Proposed Rehabilitation Cost (2015 $)	Year for Rehabilitation	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current + Condition better then expected for age	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
									2,399.3					42	33	$32,466	$8,955	$23,511	$95,195			5.6					2								$0							
5170	Storm/Sanitary - Gravity Main		10 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	94.7	5167	5166	1972	75	31	44	$416	$244.05	$172	$2,840	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5171	Storm/Sanitary - Gravity Main	2398	17 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	77.1	5157	5160	1972	75	31	44	$339	$198.88	$140	$2,313	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5172	Storm/Sanitary - Gravity Main	2398	16 VICTORIA BLVD			12" Concrete Tile Through Main Drain	Collector Gravity Main	12"	61.2	5159	5166	1972	75	31	44	$1,571	$921.65	$649	$10,710	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5174	Storm/Sanitary - Gravity Main	2398	14 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	77.7	5161	5159	1972	75	31	44	$342	$200.64	$141	$2,330	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5175	Storm/Sanitary - Gravity Main	2398	9 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	71.0	5162	5160	1972	75	31	44	$312	$183.04	$129	$2,129	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5176	Storm/Sanitary - Gravity Main	2398	22 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	52.8	5155	5158	1972	75	31	44	$232	$136.11	$96	$1,583	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5177	Storm/Sanitary - Gravity Main		26 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	198.1	5152	5166	1972	75	31	44	$871	$510.99	$360	$5,942	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5178	Storm/Sanitary - Gravity Main	2398	21 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	49.3	5156	5157	1972	75	31	44	$217	$127.31	$90	$1,479	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5179	Storm/Sanitary - Gravity Main	2398	13 VICTORIA BLVD			12" Concrete Tile Through Main Drain	Collector Gravity Main	12"	17.4	5160	5159	1972	75	31	44	$445	$261.07	$184	$3,036	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5181	Storm/Sanitary - Gravity Main	2398	8 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	48.5	5163	5161	1972	75	31	44	$213	$124.96	$88	$1,454	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5182	Storm/Sanitary - Gravity Main	2398	5 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	92.9	5164	5162	1972	75	31	44	$409	$239.95	$169	$2,788	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5183	Storm/Sanitary - Gravity Main	2398	26 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	68.7	5153	5155	1972	75	31	44	$302	$177.17	$125	$2,061	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5184	Storm/Sanitary - Gravity Main		19 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	108.7	5169	5168	1972	75	31	44	$478	$280.43	$198	$3,261	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5185	Storm/Sanitary - Gravity Main	2398	27 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	74.6	5154	5156	1972	75	31	44	$328	$192.43	$136	$2,238	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5186	Storm/Sanitary - Gravity Main	2398	13 VICTORIA BLVD			12" Concrete Tile Through Main Drain	Collector Gravity Main	12"	81.6	5168	5160	1972	75	31	44	$2,093	$1,227.89	$865	$14,271	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5187	Storm/Sanitary - Gravity Main	2399	4 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	66.3	5165	5163	1972	75	31	44	$292	$171.31	$121	$1,990	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5188	Storm/Sanitary - Gravity Main	2398	18 VICTORIA BLVD			6 " Slotted Plastic Perforated with a sock in Road Shoulder	Collector Gravity Main	6"	71.3	5158	5159	1972	75	31	44	$314	$184.21	$130	$2,139	4		4	Poor	Likely	Minor	M	2	2040	10	2048	2048	2124	32					0	2048	2048	2123	32
5193	Storm/Sanitary - Gravity Main	2469	37 BROOKHAVEN CRES			Perforated 4" with sock	Collector Gravity Main	4"	150.3			2005	75	64	11	$3,318	$486.64	$2,831	$4,509	9		9	Very Good	Rare	Moderate	L	1	2073	10	2081	2081	2157	65					0	2081	2081	2156	65
5194	Storm/Sanitary - Gravity Main	2469	45 BROOKHAVEN CRES			Perforated 4" with sock	Collector Gravity Main	4"	253.9			2005	75	64	11	$5,604	$821.92	$4,782	$7,616	9		9	Very Good	Rare	Moderate	L	1	2073	10	2081	2081	2157	65					0	2081	2081	2156	65
5195	Storm/Sanitary - Gravity Main	2469	57 BROOKHAVEN CRES			Perforated 4" with sock	Collector Gravity Main	4"	384.1			2005	75	64	11	$8,478	$1,243.44	$7,235	$11,522	9		9	Very Good	Rare	Moderate	L	1	2073	10	2081	2081	2157	65					0	2081	2081	2156	65
5201	Storm/Sanitary - Gravity Main	2454	32 RAYBURN MEADOWS			<Null>	Collector Gravity Main		18.2	5195	5199	2003	75	62	13	$358	$62.05	$296	$545	8		8	Good	Unlikely	Moderate	M	2	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5202	Storm/Sanitary - Gravity Main	2454	46 RAYBURN MEADOWS			<Null>	Collector Gravity Main		14.6	5197	5200	2003	75	62	13	$287	$49.75	$237	$437	8		8	Good	Unlikely	Moderate	M	2	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5203	Storm/Sanitary - Gravity Main	2469	57 BROOKHAVEN CRES			<Null>	Collector Gravity Main		71.3			2003	75	62	13	$1,402	$243.01	$1,159	$2,138	8		8	Good	Unlikely	Moderate	M	2	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5204	Storm/Sanitary - Gravity Main	2454	33 RAYBURN MEADOWS			<Null>	Collector Gravity Main		86.0	5199	outfall	2003	75	62	13	$1,691	$293.11	$1,398	$2,579	8		8	Good	Unlikely	Moderate	M	2	2071	10	2079	2079	2155	63					0	2079	2079	2154	63
5205	Storm/Sanitary - Gravity Main	2454	49 RAYBURN MEADOWS			<Null>	Collector Gravity Main		109.5	5200	outfall	2003	75	62	13	$2,154	$373.36	$1,781	$3,284	8		8	Good	Unlikely	Moderate	M	2	2071	10	2079	2079	2155	63					0	2079	2079	2154	63

East Garafraxa
Storm Pond
Assets after 2017 Review

Current Leveles of Service — Replacement/Improvement Year Based on Current Levels Service

Expected Levels of Service — Replacement/Improvement Year Based on Expected Levels Service

Fixed Asset #	Subtype	Asset Name	Road Section GIS ID	Road Name	Address	Volume Capacity (m3)	Water Type	Install Year	Useful Life	Remaining Useful Life	Age	Historic Cost	2015 Accumulated Amortization	2015 Net Book Value	Replacement Cost	Condition Based On Useful Life	Assessed Condition	Condition Used for Analysis	Asset Condition (As per Priority Rating)	Probability of Failure (Based on Condition or Expected Condition)	Consequence of Failure	Risk of Failure	Numerical Value of Risk of Failure	Year Replacement due to minimmal maintenance practices	Current Levels of Service % benefit	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score	Subsequent Replacement Year	Revised Remaining Useful Life		Rehabiliation Year	Rehabiliation Cost (2016)	Subsaquent Rehab Year	Subsaquent Rehab Costs	Extended Life (Years) due to Betterment	Expected Levels of Service % benefit over Current	Revised Levels Service Replacement Year	Year Replacement Applying Risk Score - or Staff Override	Subsequent Replacement Year	Revised Remaining Useful Life
										82	**18**	**$ 648,507**	**$ 115,936**	**$ 532,571**	**$ 684,307**			**8.3**					**1**									**$ -**		**$ -**						
2948	Storm/Sanitary -	Stormwater Pond R#314732 - Rayburn Meado	Detention Pond					2003	100	87	13	$159,460	$20,730	$138,730	$173,855	9		9	Very Good	Rare	Moderate	L	1	2093	10	2103	2103	2203	87							0	2103	2103	2203	87
2949	Storm/Sanitary -	Stormwater Pond R#314750 - Rayburn Meado	Detention Pond					2003	100	87	13	$100,452	$13,059	$87,393	$109,520	9		9	Very Good	Rare	Moderate	L	1	2093	10	2103	2103	2203	87							0	2103	2103	2203	87
2950	Storm/Sanitary -	Stormwater Pond R#3264/65/66 - Brookhaven	Detention Pond					2005	100	89	11	$89,473	$9,842	$79,631	$94,252	9		9	Very Good	Rare	Moderate	L	1	2095	10	2105	2105	2205	89							0	2105	2105	2205	89
2951	Storm/Sanitary -	Stormwater Pond R#3305 - Brookhaven	Detention Pond					2005	100	89	11	$45,530	$5,008	$40,522	$47,962	9		9	Very Good	Rare	Moderate	L	1	2095	10	2105	2105	2205	89							0	2105	2105	2205	89
2952	Storm/Sanitary -	Stormwater Pond R#3251 - Brookhaven	Detention Pond					2005	100	89	11	$71,795	$7,897	$63,897	$75,629	9		9	Very Good	Rare	Moderate	L	1	2095	10	2105	2105	2205	89							0	2105	2105	2205	89
2953	Storm/Sanitary -	Stormwater Pond R#3242 - Garafraxa Woods	Detention Pond					1980	100	64	36	$44,398	$15,983	$28,415	$44,398	6		6	Good	Unlikely	Moderate	M	2	2070	10	2080	2080	2180	64							0	2080	2080	2180	64
2954	Storm/Sanitary -	Stormwater Pond R#323 - Garafraxa Woods	Detention Pond					1980	100	64	36	$34,293	$12,345	$21,948	$34,293	6		6	Good	Unlikely	Moderate	M	2	2070	10	2080	2080	2180	64							0	2080	2080	2180	64
2955	Storm/Sanitary -	Stormwater Pond R#3214 - Garafraxa Woods	Detention Pond					1980	100	64	36	$78,918	$28,410	$50,507	$78,918	6		6	Good	Unlikely	Moderate	M	2	2070	10	2080	2080	2180	64							0	2080	2080	2180	64
2956	Storm/Sanitary -	Stormwater Pond R#3284 - Brookhaven	Detention Pond					2005	100	89	11	$24,189	$2,661	$21,528	$25,481	9		9	Very Good	Rare	Moderate	L	1	2095	10	2105	2105	2205	89							0	2105	2105	2205	89

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Appendix B

Draft Data Verification and Condition Assessment Policy

APPENDIX B: Draft Data Verification and Condition Assessment Policy

Data Verification

1. The main source of asset data updating and editing will be through Township of East Garafraxa's PSAB 3150 compliance procedures and/or annual reporting process.

2. Asset additions, disposals, betterments, and write-offs will be recorded based on the Township's PSAB 3150 Compliance Policies and/or general updates to the Asset Management Spreadsheets.

3. Verification of the correct treatment of asset revisions will be completed through frequent annual reviews by Township staff, as well as an annual review by the Township's auditor.

4. During years which condition assessments are not being performed, asset replacement cost will be determined based on a combination of inflating previous values or through the use of the current year's historical invoice data. Where indices are being used, the Non-Residential Building Construction Price Index (NRBCP) shall be used for construction related assets (i.e., infrastructure) and Consumer Price Index (CPI) shall be used for all other assets (i.e., furniture, interior finishes, appliances, etc.).

Condition Assessment

1. Condition assessments shall be performed as outlined in Table B-1 below.

2. Condition assessments shall be performed by qualified individuals (or companies) and shall include a review of the following:
   a) Current asset condition (consistent with the rating format used within this report, unless the Township stipulates a new format, or regulatory body required format);
      i. Identify any unusual wear from asset use that may hinder asset performance and eventually reduce useful life.
      ii. Assess asset performance and identify (if any) capital improvements that can be applied to extend the asset's useful life and/or bring the asset back to proper service levels.
   b) Current asset replacement cost. This is to be based on replacing the asset under current legislation/requirements using Township specification; and
   c) Remaining service life, assuming current identified maintenance and usage levels.

Table B-1

Condition Assessment Time Table

Asset Type	Frequency of Condition Assessment	Comments
Bridges	Every two years	As per Provincial Regulation using OSIM Inspection format
Equipment (Public Works, Other)		As identified by Staff, so Equipment is safe and in good working order
Facilities	Every ten - fifteen years	Complete detailed assessment every ten years but annual staff and specialized inspection/cleaning of some components (e.g., HVAC, Fans, Pumps, etc.)
Land Improvements (Playing Surfaces, Parking Lots, Parks, Landscaping)	Annually	Staff assessment annually
Roads	Every five - ten years	Complete Roads Needs study every five years but internal staff review annually
Road Signs		As per Regulation 239 Minimum Maintenance Standards
Sidewalks		As per Regulation 239 Minimum Maintenance Standards
Software & Hardware		As identified by Staff, so software and hardware operating well
Storm Water Mains	Every fifteen years	CCTV scans and review of Storm Water system
Storm Water (Catch Basins, Manholes, Stormceptors)	Annually	To be assessed while doing a clean out
Street Lights	Every month	To ensure they are working
Vehicles		As per Manufacturer's Warranty and Maintenance Program
Generators	Every season	Minimum four times per year

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Appendix C

20 Year Detailed Asset Management Strategy & Financing Strategy

2016 Asset Management Plan
Scheduled Capital Replacement - Uninflated
Scenario 1

Tax Supported Assets

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Replacement - Uninflated	**690,549**	**232,769**	**465,000**	**778,941**	**674,500**	**1,030,549**	**785,461**	**1,222,602**	**340,000**	**1,056,534**	**675,415**	**468,902**	**648,600**	**220,000**	**500,134**	**848,415**	**658,902**	**202,749**	**476,896**	**1,016,780**	**12,993,698**
Road Surface - Asphalt	-	-	200,000	180,500	254,500	550,000	155,000	500,000	160,000	209,400	320,000	-	406,600	-	-	340,000	-	-	-	-	3,276,000
Road Surface - Gravel	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	3,000,000
Road Base																					-
Bridge & Culverts	-	50,000	60,000	425,000	-	-	400,000	100,000	-	225,000	-	-	-	-	-	-	-	-	-	370,000	1,630,000
Facilities	23,000	-	-	-	-	3,000	-	140,000	10,000	-	-	-	-	15,000	-	3,000	45,000	-	8,000	-	247,000
Signs	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	200,000
Barriers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,646	4,646	4,646	13,938
Street Lights																					-
Cross Road Culverts	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	200,000
Storm Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catch Basin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storm Pond																					-
Vehicles	425,000	-	35,000	-	250,000	250,000	35,000	250,000	-	425,000	35,000	250,000	40,000	-	310,000	285,000	425,000	-	285,000	425,000	3,725,000
Equipment	-	-	-	-	-	25,000	10,000	60,602	-	-	30,000	5,000	-	35,000	-	20,000	-	602	8,500	-	194,705
Software & Hardware	32,549	12,769	-	3,441	-	32,549	15,461	2,000	-	2,134	30,415	18,902	2,000	-	2,134	30,415	18,902	2,000	-	2,134	207,805
Land Improvements	40,000	-	-	-	-	-	-	-	-	25,000	90,000	25,000	30,000	-	18,000	-	-	25,500	750	45,000	299,250

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Rehabilitation - Uninflated	**261,000**	**433,000**	**10,000**	**-**	**40,000**	**95,000**	**-**	**-**	**-**	**80,000**	**58,000**	**32,500**	**-**	**1,000**	**41,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**1,056,500**
Road Surface - Asphalt	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200,000
Road Surface - Gravel																					-
Road Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge & Culverts	39,000	433,000	10,000	-	-	95,000	-	-	-	-	58,000	32,500	-	-	-	-	-	-	-	-	667,500
Facilities	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,000
Signs																					-
Barriers																					-
Street Lights	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	1,000	1,000	1,000	1,000	1,000	1,000	7,000
Cross Road Culverts																					-
Storm Mains																					-
Catch Basin																					-
Storm Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles	-	-	-	-	40,000	-	-	-	-	80,000	-	-	-	-	40,000	-	-	-	-	-	160,000
Equipment	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000
Software & Hardware																					-
Land Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Capital - U	**1,344,049**	**1,083,269**	**872,500**	**1,161,441**	**1,107,000**	**1,508,049**	**1,177,961**	**1,605,102**	**732,500**	**1,519,034**	**1,125,915**	**918,902**	**1,041,100**	**603,500**	**953,634**	**1,231,915**	**1,052,402**	**591,249**	**870,396**	**1,400,280**	**21,900,198**
Road Surface - Asphalt	253,000	88,000	253,000	233,500	307,500	603,000	208,000	553,000	213,000	262,400	373,000	88,000	459,600	53,000	53,000	393,000	53,000	53,000	53,000	53,000	4,606,000
Road Surface - Gravel	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	6,400,000
Road Base	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	800,000
Bridge & Culverts	89,000	523,000	120,000	465,000	50,000	135,000	450,000	140,000	50,000	265,000	108,000	72,500	50,000	40,000	50,000	40,000	50,000	40,000	50,000	410,000	3,197,500
Facilities	72,000	37,000	37,000	37,000	37,000	40,000	37,000	177,000	47,000	37,000	37,000	37,000	37,000	52,000	37,000	40,000	82,000	37,000	45,000	37,000	999,000
Signs	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	200,000
Barriers	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	9,646	9,646	9,646	113,938
Street Lights	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	1,000	1,000	1,000	1,000	1,000	1,000	7,000
Cross Road Culverts	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	200,000
Storm Mains	-	-	5,000	-	-	-	-	-	-	-	-	-	-	-	20,000	-	-	5,000	-	-	30,000
Catch Basin	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	40,000
Storm Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles	425,000	-	35,000	-	290,000	250,000	35,000	250,000	-	505,000	35,000	250,000	40,000	-	350,000	285,000	425,000	-	285,000	425,000	3,885,000
Equipment	13,000	3,000	3,000	3,000	3,000	28,000	13,000	63,602	3,000	3,000	33,000	8,000	3,000	38,000	3,000	23,000	3,000	3,602	11,500	3,000	264,705
Software & Hardware	35,549	15,769	3,000	6,441	3,000	35,549	18,461	5,000	3,000	5,134	33,415	21,902	5,000	3,000	5,134	33,415	21,902	5,000	3,000	5,134	267,805
Land Improvements	69,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	54,500	119,500	54,500	59,500	29,500	47,500	29,500	29,500	55,000	30,250	74,500	889,250

Levels of Service Costs - Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled LOS	**392,500**	**417,500**	**397,500**	**382,500**	**392,500**	**382,500**	**392,500**	**382,500**	**392,500**	**382,500**	**392,500**	**417,500**	**392,500**	**382,500**	**412,500**	**382,500**	**392,500**	**387,500**	**392,500**	**382,500**	**7,850,000**
Road Surface - Asphalt	53,000	88,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	88,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	1,130,000
Road Surface - Gravel	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	3,400,000
Road Base	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	800,000
Bridge & Culverts	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	50,000	40,000	900,000
Facilities	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	740,000
Signs																					0
Barriers	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	100,000
Street Lights																					0
Cross Road Culverts																					0
Storm Mains			5,000												20,000			5,000			30,000
Catch Basin	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	40,000
Storm Pond																					0
Vehicles																					0
Equipment	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	60,000
Software & Hardware	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	60,000
Land Improvements	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	29,500	590,000

Water Assets

Total Replacement Water Capital - Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Replacement Water C	**16,334**	**-**	**75,000**	**425,500**	**6,469**	**-**	**-**	**-**	**22,548**	**7,576**	**-**	**-**	**-**	**-**	**14,766**	**-**	**-**	**-**	**-**	**-**	**568,193**
Water Facilities & Compone	16,334	-	-	-	6,469	-	-	-	22,548	7,576	-	-	-	-	14,766	-	-	-	-	-	67,693
Water Mains	-	-	-	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400,000
Water Hydrant	-	-	-	25,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25,500
Water Wells	-	-	75,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75,000

Total Rehabilitation Water- Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Rehabilitation Water-	**-**	**-**	**5,000**	**-**	**20,000**	**-**	**-**	**-**	**-**	**5,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**30,000**
Water Facilities & Compone	-	-	5,000	-	8,000	-	-	-	-	5,000	-	-	-	-	-	-	-	-	-	-	18,000
Water Mains																					-
Water Hydrant																					-
Water Wells	-	-	-	-	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,000

Total Scheduled Water Capital - Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Water Cap	**26,334**	**10,000**	**90,000**	**435,500**	**36,469**	**10,000**	**10,000**	**10,000**	**32,548**	**22,576**	**10,000**	**10,000**	**10,000**	**10,000**	**24,766**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**798,193**
Water Facilities & Compone	19,334	3,000	8,000	3,000	17,469	3,000	3,000	3,000	25,548	15,576	3,000	3,000	3,000	3,000	17,766	3,000	3,000	3,000	3,000	3,000	145,693
Water Mains	2,000	2,000	2,000	402,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	440,000
Water Hydrant	5,000	5,000	5,000	30,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	125,500
Water Wells	-	-	75,000	-	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87,000

Water Levels of Service

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Water LOS	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**200,000**
Water Facilities & Compone	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	60,000
Water Mains	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	40,000
Water Hydrant	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	100,000
Water Wells																					

2016 Asset Management Plan
Scheduled Capital Replacement - Inflated
Scenario 1: Expected LoS (Optimal)

Tax Supported Assets

Inflation Factor

100.0%	102.0%	104.0%	106.1%	108.2%	110.4%	112.6%	114.9%	117.2%	119.5%	121.9%	124.3%	126.8%	129.4%	131.9%	134.6%	137.3%	140.0%	142.8%	145.7%

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Capital Replacement - Inflated	**690,549**	**237,425**	**483,786**	**826,618**	**730,100**	**1,137,809**	**884,557**	**1,404,386**	**398,364**	**1,262,656**	**823,327**	**583,021**	**822,582**	**284,593**	**659,916**	**1,141,855**	**904,531**	**283,897**	**681,125**	**1,481,256**	**15,722,354**
Road Surface - Asphalt	-	-	208,080	191,548	275,479	607,244	174,555	574,343	187,466	250,252	390,078	-	515,667	-	-	457,595	-	-	-	-	3,832,308
Road Surface - Gravel	150,000	153,000	156,060	159,181	162,365	165,612	168,924	172,303	175,749	179,264	182,849	186,506	190,236	194,041	197,922	201,880	205,918	210,036	214,237	218,522	3,644,605
Road Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge & Culverts	-	51,000	62,424	451,013	-	-	450,465	114,869	-	268,896	-	-	-	-	-	-	-	-	-	539,020	1,937,687
Facilities	23,000	-	-	-	3,312	-	-	160,816	11,717	-	-	-	-	19,404	-	4,038	61,775	-	11,426	-	295,488
Signs	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	12,434	12,682	12,936	13,195	13,459	13,728	14,002	14,282	14,568	242,974
Barriers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,506	6,636	6,769	19,910
Street Lights	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cross Road Culverts	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	12,434	12,682	12,936	13,195	13,459	13,728	14,002	14,282	14,568	242,974
Storm Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catch Basin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storm Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles	425,000	-	36,414	-	270,608	276,020	39,416	287,171	-	507,914	42,665	310,844	50,730	-	409,038	383,572	583,434	-	407,050	619,145	4,649,021
Equipment	-	-	-	-	-	27,602	11,262	69,613	-	-	36,570	6,217	-	45,276	-	26,917	-	844	12,140	-	236,441
Software & Hardware	32,549	13,025	-	3,652	-	35,937	17,412	2,297	-	2,550	37,076	23,502	2,536	-	2,815	40,935	25,948	2,800	-	3,108	246,143
Land Improvements	40,000	-	-	-	-	-	-	-	-	29,877	109,709	31,084	38,047	-	23,751	-	-	35,706	1,071	65,557	374,803

Inflation Factor

100.0%	102.0%	104.0%	106.1%	108.2%	110.4%	112.6%	114.9%	117.2%	119.5%	121.9%	124.3%	126.8%	129.4%	131.9%	134.6%	137.3%	140.0%	142.8%	145.7%

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Capital Rehab & Maint.- Inflated	**261,000**	**441,660**	**10,404**	**-**	**43,297**	**104,888**	**-**	**-**	**-**	**95,607**	**70,702**	**40,410**	**-**	**1,294**	**54,099**	**1,346**	**1,373**	**1,400**	**1,428**	**1,457**	**1,130,364**
Road Surface - Asphalt	200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200,000
Road Surface - Gravel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Base	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bridge & Culverts	39,000	441,660	10,404	-	-	104,888	-	-	-	-	70,702	40,410	-	-	-	-	-	-	-	-	707,063
Facilities	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,000
Signs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barriers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Street Lights	-	-	-	-	-	-	-	-	-	-	-	-	-	1,294	1,319	1,346	1,373	1,400	1,428	1,457	9,617
Cross Road Culverts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storm Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catch Basin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storm Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles	-	-	-	-	43,297	-	-	-	-	95,607	-	-	-	-	52,779	-	-	-	-	-	191,684
Equipment	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000
Software & Hardware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Inflation Factor

100.0%	102.0%	104.0%	106.1%	108.2%	110.4%	112.6%	114.9%	117.2%	119.5%	121.9%	124.3%	126.8%	129.4%	131.9%	134.6%	137.3%	140.0%	142.8%	145.7%

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Capital - Inflated	**1,344,049**	**1,104,935**	**907,749**	**1,232,530**	**1,198,252**	**1,665,008**	**1,326,575**	**1,843,758**	**858,240**	**1,815,386**	**1,372,484**	**1,142,539**	**1,320,367**	**780,692**	**1,258,299**	**1,657,896**	**1,444,722**	**827,891**	**1,243,140**	**2,039,943**	**26,384,557**
Road Surface - Asphalt	253,000	89,760	263,221	247,792	332,848	665,761	234,242	635,223	249,563	313,592	454,685	109,417	582,884	68,561	69,932	528,926	72,758	74,213	75,697	77,211	**5,399,287**
Road Surface - Gravel	320,000	326,400	332,928	339,587	346,378	353,306	360,372	367,579	374,931	382,430	390,078	397,880	405,837	413,954	422,233	430,678	439,291	448,077	457,039	466,180	**7,775,158**
Road Base	40,000	40,800	41,616	42,448	43,297	44,163	45,046	45,947	46,866	47,804	48,760	49,735	50,730	51,744	52,779	53,835	54,911	56,010	57,130	58,272	**971,895**
Bridge & Culverts	89,000	533,460	124,848	493,462	54,122	149,051	506,773	160,816	58,583	316,700	131,651	90,145	63,412	51,744	65,974	53,835	68,639	56,010	71,412	597,293	**3,736,929**
Facilities	72,000	37,740	38,495	39,265	40,050	44,163	41,668	203,317	55,068	44,218	45,103	46,005	46,925	67,268	48,821	53,835	112,568	51,809	64,271	53,902	**1,206,491**
Signs	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	12,434	12,682	12,936	13,195	13,459	13,728	14,002	14,282	14,568	**242,974**
Barriers	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	6,217	6,341	6,468	6,597	6,729	6,864	13,507	13,777	14,053	**141,397**
Street Lights	-	-	-	-	-	-	-	-	-	-	-	-	-	1,294	1,319	1,346	1,373	1,400	1,428	1,457	**9,617**
Cross Road Culverts	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	12,434	12,682	12,936	13,195	13,459	13,728	14,002	14,282	14,568	**242,974**
Storm Mains	-	-	5,202	-	-	-	-	-	-	-	-	-	-	-	26,390	-	-	7,001	-	-	**38,593**
Catch Basin	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438	2,487	2,536	2,587	2,639	2,692	2,746	2,800	2,856	2,914	**48,595**
Storm Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Vehicles	425,000	-	36,414	-	313,905	276,020	39,416	287,171	-	603,522	42,665	310,844	50,730	-	461,818	383,572	583,434	-	407,050	619,145	**4,840,705**
Equipment	13,000	3,060	3,121	3,184	3,247	30,914	14,640	73,059	3,515	3,585	40,227	9,947	3,805	49,157	3,958	30,955	4,118	5,044	16,425	4,370	**319,333**
Software & Hardware	35,549	16,085	3,121	6,835	3,247	39,249	20,790	5,743	3,515	6,135	40,733	27,232	6,341	3,881	6,774	44,972	30,067	7,001	4,285	7,479	**319,035**
Land Improvements	69,500	30,090	30,692	31,306	31,932	32,570	33,222	33,886	34,564	65,133	145,670	67,764	75,460	38,161	62,675	39,703	40,497	77,013	43,204	108,532	**1,091,575**

Levels of Service Costs - Inflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Capital - Inflated	**392,500**	**425,850**	**413,559**	**405,912**	**424,855**	**422,311**	**442,019**	**439,372**	**459,876**	**457,123**	**478,455**	**519,109**	**497,785**	**494,805**	**544,285**	**514,795**	**538,818**	**542,594**	**560,587**	**557,230**	**9,531,839**
Road Surface - Asphalt	53,000	89,760	55,141	56,244	57,369	58,516	59,687	60,880	62,098	63,340	64,607	109,417	67,217	68,561	69,932	71,331	72,758	74,213	75,697	77,211	**1,366,979**
Road Surface - Gravel	170,000	173,400	176,868	180,405	184,013	187,694	191,448	195,277	199,182	203,166	207,229	211,374	215,601	219,913	224,311	228,798	233,374	238,041	242,802	247,658	**4,130,553**
Road Base	40,000	40,800	41,616	42,448	43,297	44,163	45,046	45,947	46,866	47,804	48,760	49,735	50,730	51,744	52,779	53,835	54,911	56,010	57,130	58,272	**971,895**
Bridge & Culverts	50,000	40,800	52,020	42,448	54,122	44,163	56,308	45,947	58,583	47,804	60,950	49,735	63,412	51,744	65,974	53,835	68,639	56,010	71,412	58,272	**1,092,179**
Facilities	37,000	37,740	38,495	39,265	40,050	40,851	41,668	42,501	43,351	44,218	45,103	46,005	46,925	47,863	48,821	49,797	50,793	51,809	52,845	53,902	**899,003**
Signs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Barriers	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	6,217	6,341	6,468	6,597	6,729	6,864	7,001	7,141	7,284	**121,487**
Street Lights	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Cross Road Culverts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Storm Mains	-	-	5,202	-	-	-	-	-	-	-	-	-	-	-	26,390	-	-	7,001	-	-	**38,593**
Catch Basin	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438	2,487	2,536	2,587	2,639	2,692	2,746	2,800	2,856	2,914	**48,595**
Storm Pond	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Equipment	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	3,730	3,805	3,881	3,958	4,038	4,118	4,201	4,285	4,370	**72,892**
Software & Hardware	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	3,730	3,805	3,881	3,958	4,038	4,118	4,201	4,285	4,370	**72,892**
Land Improvements	29,500	30,090	30,692	31,306	31,932	32,570	33,222	33,886	34,564	35,255	35,960	36,680	37,413	38,161	38,925	39,703	40,497	41,307	42,133	42,976	**716,772**

Water Assets

Total Replacement Water Capital - Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Replacement Water Capital - Uninfla	**16,334**	**-**	**78,030**	**451,544**	**7,003**	**-**	**-**	**-**	**26,419**	**9,054**	**-**	**-**	**-**	**-**	**19,483**	**-**	**-**	**-**	**-**	**-**	**607,866**
Water Facilities & Components	16,334	-	-		7,003	-	-	-	26,419	9,054	-	-	-	-	19,483	-	-	-	-	-	78,292
Water Mains	-	-	-	424,483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	424,483
Water Hydrant	-	-	-	27,061	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27,061
Water Wells	-	-	78,030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78,030
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Total Rehabilitation Water- Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Rehabilitation Water- Uninflated	**-**	**-**	**5,202**	**-**	**21,649**	**-**	**-**	**-**	**-**	**5,975**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**32,826**
Water Facilities & Components	-	-	5,202	-	8,659	-	-	-	-	5,975	-	-	-	-	-	-	-	-	-	-	19,837
Water Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Hydrant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Wells	-	-	-	-	12,989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,989
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Total Scheduled Water Capital - Uninflated

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Water Capital - Uninflated	**26,334**	**10,200**	**93,636**	**462,156**	**39,476**	**11,041**	**11,262**	**11,487**	**38,135**	**26,980**	**12,190**	**12,434**	**12,682**	**12,936**	**32,678**	**13,459**	**13,728**	**14,002**	**14,282**	**14,568**	**883,666**
Water Facilities & Components	19,334	3,060	8,323	3,184	18,909	3,312	3,378	3,446	29,934	18,614	3,657	3,730	3,805	3,881	23,441	4,038	4,118	4,201	4,285	4,370	171,021
Water Mains	2,000	2,040	2,081	426,606	2,165	2,208	2,252	2,297	2,343	2,390	2,438	2,487	2,536	2,587	2,639	2,692	2,746	2,800	2,856	2,914	473,078
Water Hydrant	5,000	5,100	5,202	32,367	5,412	5,520	5,631	5,743	5,858	5,975	6,095	6,217	6,341	6,468	6,597	6,729	6,864	7,001	7,141	7,284	148,548
Water Wells	-	-	78,030	-	12,989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91,019
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Water Levels of Service

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Total Scheduled Water LOS - Uninflated	**10,000**	**10,200**	**10,404**	**10,612**	**10,824**	**11,041**	**11,262**	**11,487**	**11,717**	**11,951**	**12,190**	**12,434**	**12,682**	**12,936**	**13,195**	**13,459**	**13,728**	**14,002**	**14,282**	**14,568**	**194,379**
Water Facilities & Components	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	3,730	3,805	3,881	3,958	4,038	4,118	4,201	4,285	4,370	72,892
Water Mains	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438	2,487	2,536	2,587	2,639	2,692	2,746	2,800	2,856	2,914	
Water Hydrant	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	6,217	6,341	6,468	6,597	6,729	6,864	7,001	7,141	7,284	121,487
Water Wells	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2016 Asset Management Plan
Scheduled Capital Replacement - Uninflated
Scenario 2

Capital Start $1,000,000

Tax Supported Assets

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Scenario 2a - $1,000,000 + 0.5%	1,000,000	1,009,000	1,018,000	1,027,000	1,036,000	1,045,000	1,054,000	1,063,000	1,072,000	1,081,000	1,090,000	1,099,000	1,108,000	1,117,000	1,126,000	1,135,000	1,144,000	1,153,000	1,162,000	1,171,000	**21,710,000**
Scenario 2b - $1,000,000 + 1%	1,000,000	1,018,000	1,036,000	1,054,000	1,072,000	1,090,000	1,108,000	1,126,000	1,144,000	1,162,000	1,180,000	1,198,000	1,216,000	1,234,000	1,252,000	1,270,000	1,288,000	1,306,000	1,324,000	1,342,000	**23,420,000**
																					-

2016 Asset Management Plan
Scheduled Capital Replacement - Inflated
Scenario 2: Capital Phased-In Approach - Medium Deferral (Recommended)

Tax Supported Assets

Inflation Factor	100.0%	102.0%	104.0%	106.1%	108.2%	110.4%	112.6%	114.9%	117.2%	119.5%	121.9%	124.3%	126.8%	129.4%	131.9%	134.6%	137.3%	140.0%	142.8%	145.7%	

Asset Type	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Scenario 2a	1,000,000	1,029,180	1,059,127	1,089,861	1,121,400	1,153,764	1,186,975	1,221,053	1,256,019	1,291,895	1,328,704	1,366,468	1,405,212	1,444,959	1,485,733	1,527,561	1,570,467	1,614,478	1,659,622	1,705,926	**26,518,404**
Scenario 2b	1,000,000	1,038,360	1,077,854	1,118,513	1,160,367	1,203,448	1,247,788	1,293,420	1,340,378	1,388,698	1,438,413	1,489,562	1,542,182	1,596,311	1,651,987	1,709,253	1,768,148	1,828,715	1,890,998	1,955,041	**28,739,437**