MUNICIPALITY OF BROOKE-ALVINSTON

ASSET MANAGEMENT PLAN

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Planning for growth

CONTENTS

CONTENTS

EXECUTIVE SUMMARY

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This report contains the Asset Management Plan for the Municipality of Brooke-Alvinston (Municipality) and 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 Municipality. This includes detailed information on the Municipality's asset inventory, including asset attributes, accounting valuations, replacement costs, useful life, age and asset condition. This information provides the foundation for other sections of the asset management plan.

"Expected levels of service" compares the current level of service provided by the Municipality to the level of service determined to be expected in each area. This analysis combines both descriptions/comments as well as performance measures in establishing service levels.

The "asset management strategy" provides a long term operating and capital forecast for asset related costs, indicating the requirements for maintaining, rehabilitating, replacing/disposing and expanding the Municipality's assets, while moving towards the specified expected levels of service identified above. The goal of the asset management strategy is to have the Municipality in (or moving towards) a sustainable asset management position over the forecast period.

The "financing strategy" identifies a funding plan for the asset management strategy, including a review of historical results and recommendations with respect to the required amounts and types of funding (revenue) annually. Also, any infrastructure funding deficits/shortfalls are identified and recommendations are made regarding potential approaches to reduce and mitigate the shortfall over the forecast period.

Overall, this asset management plan is a tool to be used by Municipal staff for capital and financial decision making. It can be tied to various existing reports (such as the Municipality's budget, official plan and strategic planning reports) to ensure the asset management plan can be updated to reflect any changes in Municipality priorities.

1. INTRODUCTION

1. INTRODUCTION

1.1 Overview

The main objective of an asset management plan is to use a municipality's best available information to develop a comprehensive long term plan for capital assets. In addition, the plan should provide sound methodologies and support in order to improve the accuracy of the plan on a go forward basis.

Watson & Associates Economists Ltd. (Watson) was retained by the Municipality to prepare an asset management plan. This plan is intended to be a tool for Municipal staff to use during various decision making processes, including the annual budgeting process and capital grant application processes. This plan will serve as a road map for sustainable infrastructure planning going forward.

The following assets are included in this asset management plan:

- Road related (roads, bridges, street lights, and sidewalks);
- Stormwater mains;
- Facilities;
- Land Improvements;
- Vehicles;
- Machinery and Equipment;
- Water related (mains, facilities and equipment); and
- Wastewater (mains, facilities, vehicles and equipment).

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

1.2 Plan Development

The asset management plan was developed using a program that leverages the Municipality's asset database information, staff input and asset management principles.

The development of the Municipality'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 size/material type, useful life, age, accounting valuation and current valuation. Update current valuation, where required, using applicable inflationary indices.
2) Assess current condition of the assets, based on a combination of existing Municipality reports and an 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 identifies priority projects for inclusion in the Municipality's capital forecast, as well as high risk assets that require mitigation.
4) Determine and document current levels of service, as well as expected levels of service, based on discussions with Municipal staff.
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 financing strategy to support asset management strategy, thus determining how the operating and capital related expenditure forecast will be funded over the period.
7) Prepare a comprehensive Asset Management Plan final report.

1.3 Maintaining the Asset Management Plan

The asset management plan should be updated as the capital needs and priorities of the Municipality change. This can be accomplished in conjunction with specific asset legislative requirements as well as the Municipality's budget process. Municipal staff 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, 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.

While this report covers a forecast period of 20 years, the full lifecycle of the Municipality's assets was considered in the calculations. 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.

1.4 Plan Integration

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

With respect to integrating the Municipality's budget process with asset management planning, both require a projection of capital and operating costs of a future period. The budget outlines total operating and capital requirements of the Municipality, while the asset management plan focuses in on specific asset related requirements. With this link to the annual budget, the budget update process can 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 containing both valuation methods is an effective approach to maintaining the Municipality's asset data.

Further integration into other Municipality financial/planning documents would assist in ensuring the ongoing accuracy of the asset management plan, as well as the integrated financial/planning documents. The asset management plan has been developed to allow linkages to documents such as:

- Official Plan;
- Water and Wastewater Rate Study;
- Strategic Planning Reports;
- Fiscal Impact/Operating Studies; and
- Insurance valuations and records.

2. STATE OF LOCAL INFRASTRUCTURE

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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 Municipality. The state of local infrastructure analysis includes:

- An asset database documenting asset types, sub-types including quantities, materials and other similar asset attributes;
- 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;
- Data Verification and Asset Condition policies; and
- Documentation of assumptions made in creating the asset inventory.

The Municipality has a detailed inventory listing, created for PSAB 3150 purposes. This asset inventory is updated annually and was used as a starting point in fulfilling the requirements of this report. This inventory provides current financial account valuations (i.e. historical cost, accumulated amortization and net book value) as well as attributes such as useful life and age. The financial accounting valuations were inflated, using applicable inflationary indices to estimate current replacement cost. Appendix B contains the assumptions made while completing the asset management plan.

The following data and reports were used to supplement the Municipality's asset inventory during the initial process:

a) 2009 Road Needs Study;
b) 2013 Bridge Assessment Report;
c) 2013 Water Financial Plan; and
d) Discussions with Municipal staff.

A great short-term goal includes the ability to link these reports to the PSAB 3150 asset inventory in order to create a consolidated asset inventory for all purposes, including asset management. In addition, other supplemental reports will be needed to provide more accurate information in some areas, such as buildings and overall current asset valuation.

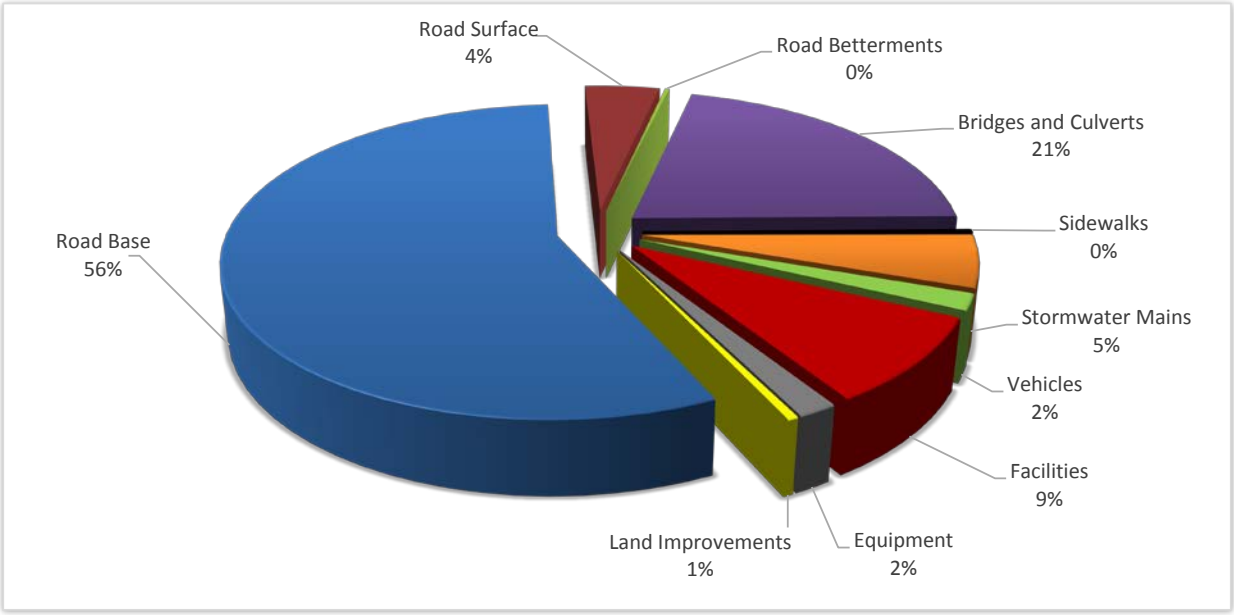
2.2 Capital Asset Overview

The Municipality presently owns and manages tax supported capital assets with a 2014 replacement value of approximately $129.2 million (excluding land assets as they are not included in this plan). Table 2-1 outlines the breakdown of these totals and Figure 2-1 illustrates the breakdown.

Table 2-1
2014 Tax Supported Assets

Asset Type	Historical Cost 12/31/2013	Accumulated Amortization 12/31/2013	Net Book Value 12/31/2013	Replacement Cost 2014$
Transportation (Public Works)				
Road Base	4,397,200	2,457,500	1,939,700	72,505,457
Road Surface	3,335,014	2,630,397	704,617	5,544,971
Road Betterments	286,399	178,999	107,400	309,662
Bridges and Culverts	4,533,797	2,496,082	2,037,714	27,235,128
Sidewalks	221,355	20,488	200,867	246,653
Stormwater Mains	1,637,942	535,612	1,102,330	6,986,192
Vehicles	1,532,089	765,915	766,175	2,189,003
Facilities	3,268,656	1,135,389	2,133,267	11,470,916
Equipment	1,662,420	1,110,671	551,749	2,135,817
Land Improvements	375,589	213,854	161,736	589,624
Total Tax Supported Capital Assets	**$ 21,250,462**	**$ 11,544,907**	**$ 9,705,555**	**$ 129,213,423**

Figure 2-1
2014 Tax Supported Assets Distribution
Based on Replacement Cost

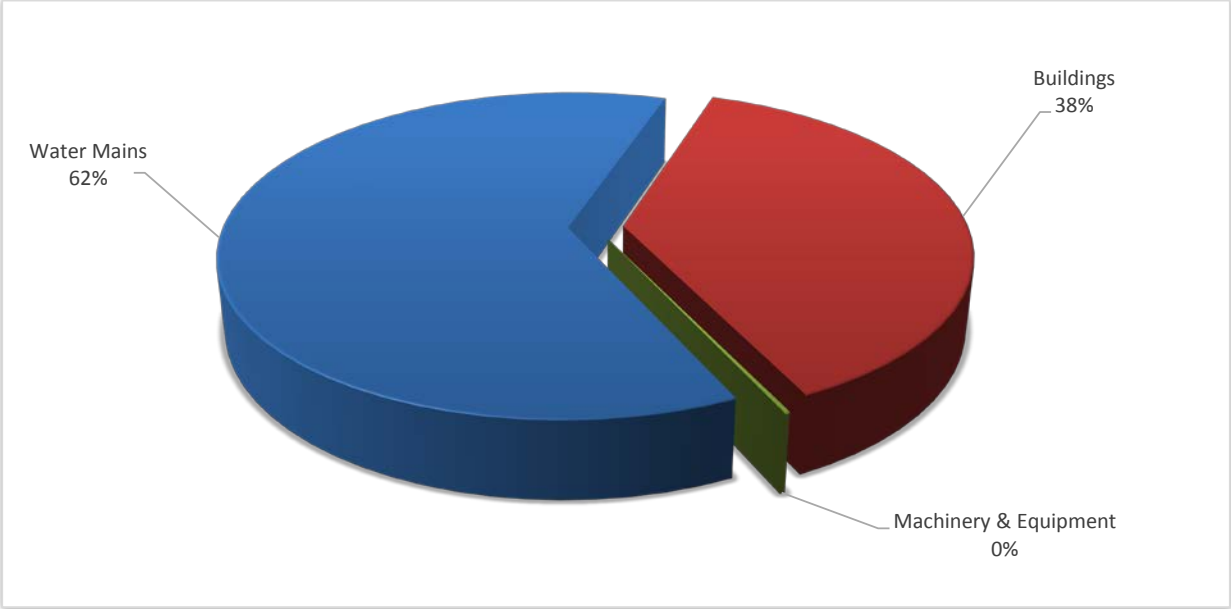


The Municipality presently owns and manages water capital assets with a 2014 replacement value of approximately $15.9 million (excluding land assets as they are not included in this plan). Table 2-2 outlines the breakdown of these totals and Figure 2-2 illustrates the breakdown.

Table 2-2
2014 Water Assets

Asset Type	Historical Cost 12/31/2013	Accumulated Amortization 12/31/2013	Net Book Value 12/31/2013	Replacement Cost 2014$
Water Mains	3,922,861	887,897	3,034,964	9,870,693
Buildings	1,112,434	571,924	540,510	6,003,498
Machinery & Equipment	29,899	18,137	11,762	34,854
Total Water Assets	**$ 5,065,194**	**$ 1,477,958**	**$ 3,587,236**	**$ 15,909,045**

Figure 2-2
2014 Water Assets Distribution
Based on Replacement Cost

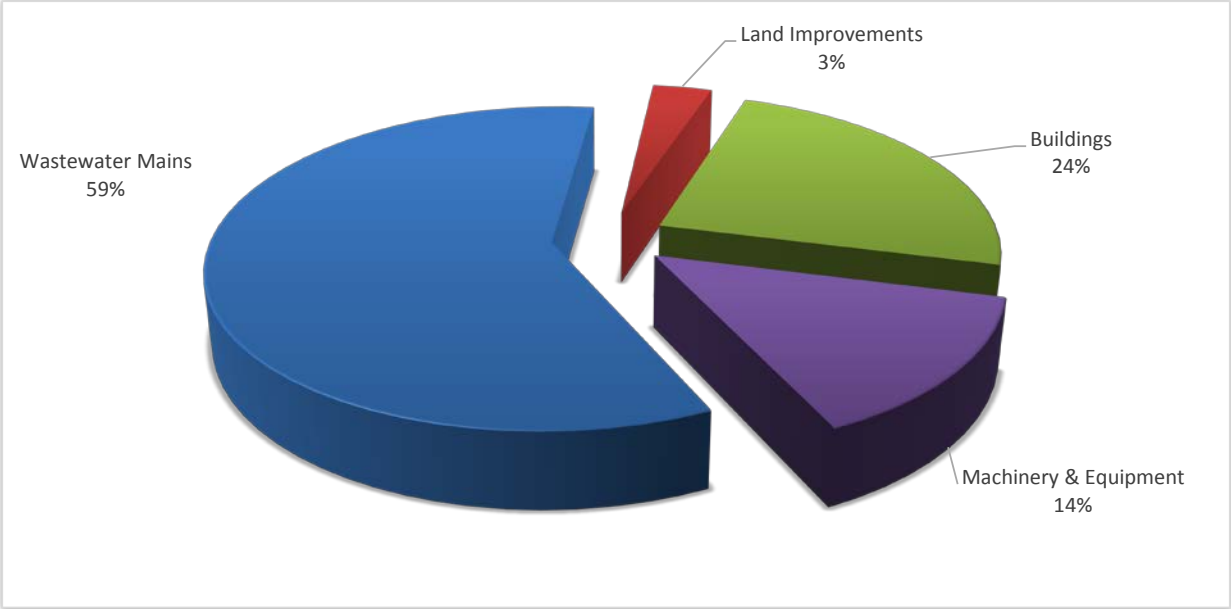


The Municipality presently owns and manages wastewater capital assets with a 2014 replacement value of approximately $13.1 million (excluding land assets as they are not included in this plan). Table 2-3 outlines the breakdown of these totals and Figure 2-3 illustrates the breakdown.

Table 2-3
2014 Wastewater Assets

Asset Type	Historical Cost 12/31/2013	Accumulated Amortization 12/31/2013	Net Book Value 12/31/2013	Replacement Cost 2014$
Wastewater Mains	3,736,141	912,080	2,824,061	7,709,337
Land Improvements	397,355	28,229	369,126	429,630
Buildings	1,039,741	443,623	596,118	3,126,884
Machinery & Equipment	1,342,869	628,238	714,631	1,844,506
Total Wastewater Assets	**$ 6,516,106**	**$ 2,012,169**	**$ 4,503,937**	**$ 13,110,357**

Figure 2-3
2014 Wastewater Assets Distribution
Based on Replacement Cost



Tables 2-1, 2-2 and 2-3 also shows the Muncipality's financial accounting valuation summary by asset type. Since 2009, the Muncipality has been required under PSAB 3150 to maintain asset listings complete with historical cost (i.e. the original cost to purchase or construct an asset), accumulated amotization and net book value. These values are reported on the Muncipality's audited financial statements each year.

The detailed capital asset inventory is contained in Appendix A. Assumptions pertaining to the asset inventory were documented as part of the asset management process are shown in Appendix B.

2.3 Asset Age Analysis

Each asset is tracked based on estimated total useful life and remaining service life. Using this information, an age analysis of the Municipality's assets can assist in identifying potential areas of focus for the asset management plan.

Table 2-4 provides an age analysis summary, including the weighted (based on replacement cost) average useful life and weighted average remaining useful life for all of the assets included in this plan. This analysis can assist in identifying potential short-term priorities within specific asset areas.

Table 2-4
Asset Age Analysis

Tax Supported

Asset Type	Weighted Average (rounded)		
	Useful Life	Remaining Useful Life	% Remaining Useful Life
Transportation (Public Works)			
Road Base	100	5	5.0%
Road Surface	17	3	17.6%
Road Betterments	8	3	37.5%
Bridges and Culverts	55	14	25.5%
Sidewalks	50	45	90.0%
Stormwater Mains	75	26	34.7%
Vehicles	20	9	45.0%
Facilities	66	31	47.0%
Equipment	14	5	35.7%
Land Improvements	22	7	31.8%

Water Assets

Asset Type	Weighted Average (rounded)		
	Useful Life	Remaining Useful Life	% Remaining Useful Life
Water Mains	75	47	63%
Buildings	83	32	39%
Machinery & Equipment	14	6	43%

Wastewater Assets

Asset Type	Weighted Average (rounded)		
	Useful Life	Remaining Useful Life	% Remaining Useful Life
Wastewater Mains	75	50	67%
Land Improvements	74	69	93%
Buildings	75	43	57%
Machinery & Equipment	37	22	59%

Total useful life and remaining service life for each capital asset is documented in Appendix A.

While this analysis can be useful in looking at the overall age characteristics of specific asset areas, asset condition (see below) will assist in providing a more accurate assessment of assets reaching the end of their useful life.

2.4 Asset Condition

Including condition assessments in the asset management plan provides for a higher level of accuracy than simply relying on useful life assumptions, especially when it comes to older, highly used or more financially significant assets. Condition assessments can provide more realistic estimates of remaining service life, which can then be used to establish rehabilitation or replacement schedules.

For the purposes of this plan, condition ratings were derived from applicable external reports (i.e. road needs study, bridge assessment reports) and staff discussions. When condition information was not available it was estimated by looking at the asset's age in relation to useful life (i.e. an asset age analysis). These ratings are based on a numerical rating of between 0 and 5, where 5 indicates an asset with most of its useful life remaining. An exception to this 0 to 5 condition rating is bridge and culverts, where a 0 and 4 rating was used. A high level summary of the weighted average condition in each asset category is as follows:

Table 2-5
Weighted Average Condition by Asset Category

Tax Supported

Asset Type	Weighted Condition (*indicates age based analysis)
Transportation (Public Works)	
Road Base*	0
Road Surface	6
Road Betterments	4
Bridges and Culverts (see note)	3
Sidewalks*	5
Stormwater Mains*	2
Vehicles*	2
Facilities*	2
Equipment*	2
Land Improvements*	2

Note: Bridges and Culverts have a conditon rating out of 4.

Water Assets

Asset Type	Weighted Condition (*indicates age based analysis)
Water Mains*	3
Buildings*	2
Machinery & Equipment*	2

Wastewater Assets

Asset Type	Weighted Condition (*indicates age based analysis)
Wastewater Mains*	4
Land Improvements*	5
Buildings*	3
Machinery & Equipment*	3

Further discussion of condition assessments will take place in Chapter 4 when assessing asset risk and identifying asset priorities. Furthermore, detailed asset conditions are documented in Appendix A to this report. As some condition assessments are currently based on the age of the assets, it is recommended that these condition assessments be updated as new information becomes available. Please see section 2.5 for further details.

2.5 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 C to this report for the "Data Verification and Condition Assessment Guideline" for the Municipality. This guideline illustrates how the asset data could be updated and verified going forward. This includes the timing of condition assessments for each asset area, as well as what should be included within the condition assessment procedures.

3. EXPECTED LEVELS OF SERVICE

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3.1 Scope and Process

A level of service (LOS) analysis gives the Municipality an opportunity to document the level of service that is currently being provided and compare it to the level of service that is expected. This can be done through a review of current practices and procedures, an examination of trends or issues facing the Municipality, 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;
- Strategic planning goals and objectives;
- Resident expectations;
- Council or Municipal staff expectations; and
- Financial or resource constraints.

The previous task of determining the state of the Municipality'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 factors in the impact of asset service level targets. It is important to document an expected LOS that is realistic to the Municipality. 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 Municipality.

3.2 Current Levels of Service versus Expected Levels of Service

The Municipality's current LOS has resulted in the current state of infrastructure discussed in chapter 2. The current LOS also relates to the risk assessment discussed in later report sections. Regarding the cost of 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 Municipality's current budget). The table below outlines broad LOS descriptions (both current and expected LOS). This analysis was documented through discussions with Municipal staff. It is anticipated that Municipal staff will further refine this analysis in future updates to the asset management plan. As this analysis relates to services that are guided by legislative requirements and standards (i.e. roads, parks, water and wastewater), the current and expected LOS are similar.

Table 3-1
Level of Service Analysis

Roads Related

Department	Level of Service Description	
	Current	Expected
Public Works	Exceed "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.	Exceed "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.
Public Works	Annual gravel maintenance program.	Resurface every gravel road every 2 years.
Public Works	Proactive capital program.	Proactive capital program.

Bridges & Culverts

Department	Level of Service Description	
	Current	Expected
Public Works	Maintain adequate condition and load limits.	Maintain adequate condition and load limits.
Public Works	Proactive Bridge and Culvert maintenance (incl. bridge washing, brush cutting and drain clearing).	Proactive Bridge and Culvert maintenance (incl. bridge washing, brush cutting and drain clearing).
Public Works	Proactive Bridge and Culvert rehabilitation.	Proactive Bridge and Culvert rehabilitation (based on bridge report).
Public Works	Bridge inspections as required.	Bridge inspections (i.e. using OSIM reports) required every 2 years.

Water & Wastewater

Department	Level of Service Description	
	Current	Expected
Water & Wastewater	Meet all legislative requirements.	Meet all legislative requirements.
Water & Wastewater	Proactive maintenance procedures.	Proactive maintenance procedures. Main relining program.
Water & Wastewater	Track complaints by segment.	Track complaints by segment.
Water & Wastewater	Monitor and minimize water main breaks & wastewater main backups.	Monitor and minimize water main breaks & wastewater main backups.

Buildings, Equipment & Vehicles

Department	Level of Service Description	
	Current	Expected
Various	Meet legislative requirement (Building Code, Fire Code, Accessibility, Health & Safety, etc.)	Meet legislative requirement (Building Code, Fire Code, Accessibility, Health & Safety, etc.)
Various	Replace Equipment/Vehicles as required. Track and monitor machine hours by vehicle.	Replace Equipment/Vehicles as required. Track and monitor machine hours by vehicle.

Please refer to Appendix D of this report for a table summarizing the estimated budget impacts associated with implementing the expected LOS over the 20 year forecast period. This impact analysis will be factored into the asset management strategy discussed in chapter 4 of this report.

3.3 Level of Service Performance Measures

As mentioned above, using performance measures in the LOS review can also be helpful in measuring the Municipality's goals and objectives when it comes to asset management. The Municipality currently tracks specific performance measures as part of the Municipal Performance Measurement Program (MPMP) which the province has in place as part of the annual Financial Information Return (FIR) submission. The FIR provides the annual financial results of the Municipality, while the MPMP provides an evaluation of the Municipality's "performance". The following table provides a summary of the specific MPMPs relating to capital asset effectiveness, which will be tracked by Municipal staff on a go-forward basis.

Table 3-2
Performance Measures Analysis

Department	Assets	Performance Measure Description	Historical Performance			Goal
			2014	2015	2016	
Fire	Buildings, Equipment, Vehicles	Residential fire civilian injuries per 1,000 persons				Minimize
Fire	Buildings, Equipment, Vehicles	Residential fire civilian fatalities per 1,000 persons				Minimize
Fire	Buildings, Equipment, Vehicles	Number of residential structural fires per 1,000 households				Minimize
Police	Buildings, Equipment, Vehicles	Total crime rate per 1,000 persons				Minimize
Transportation	Roads	Percentage of paved lane Km where condition is rated as good to very good				Maximize
Transportation	Bridges & Culverts	Percentage of bridges & culverts where condition is rated as good to very good				Maximize
Transportation	Roads	Percentage of winter events where response met or exceeded local service levels				Maximize
Wastewater	Wastewater Mains	Number of wastewater main backups per 100 KM of mains				Minimize
Wastewater	Buildings	Percentage of wastewater estimated to have by-passed treatment				Minimize
Water	Water mains	Weighted # days when a boil water advisory was issued				Minimize
Water	Water mains	Number of water main breaks per 100 KM of pipe				Minimize
Solid Waste	Buildings, Vehicles	Number of complaints received concerning garbage & recycling collection				Minimize
Recreation & Culture	Buildings	Participant hours for recreation programs per 1,000 persons				Maintain or Increase
Library	Buildings	Total library uses per person				Maintain or Increase

The Municipality will calculate and monitor these performance measures, both for MPMP and asset management purposes moving forward. As the Municipality's asset management plan evolves over time, new performance measures can be introduced to further measure the LOS being provided in each service area.

4. ASSET MANAGEMENT STRATEGY

4. 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 funding position while delivering the expected 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:

a) Non-infrastructure solutions: reduce costs and/or extend expected useful life estimates;
b) Maintenance activities: regularly scheduled activities to maintain existing useful life levels, or repairs needed due to unplanned events;
c) Renewal/Rehabilitation: significant repairs or maintenance planned to increase the useful life of assets;
d) Replacement/Disposal: complete disposal and replacement of assets, when renewal or rehabilitation is no longer an option; and
e) Expansion: given planned growth or other expansion or due to the introduction of new services.

Priority identification becomes a critical process during the asset management strategy development. 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, moving to expected 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 of the assets, assuming that an asset with a condition rating of 1 would have a high probability of failure. For some assets (i.e. stormwater mains) other factors, such as material rating, were also used to assess probability of failure.

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 Municipality (i.e. capital replacement, rehabilitation, fines & penalties, damages, etc.);
- **Social impacts:** potential injury to residents or Municipal staff;
- **Environmental impacts:** the impact of the asset failure on the environment;
- **Service delivery impacts:** the impact of the asset failure on the Municipality's ability to provide services at desired levels; and
- **Location impacts:** the varying impact of asset failure based on the asset's location within the Municipality.

Each type of impact was discussed with Municipal staff. Consequence of failure was determined by using the information contained in Table 4-2 for each asset type with the exception of the following, where the consequence of failure considerations are as follows:

a) Roads (Base and Surface): based on roadside environment and traffic rating;
b) Water and Stormwater Mains: based on pipe diameter; and
c) Wastewater Mains: based on pipe diameter and type (gravity vs. force main).

Table 4-2
Consequence of Failure Matrix

Consequence of Failure	Cost	Social	Environmental	Service Delivery
5 - Significant	Significant Cost - Difficult to Recover	Serious Injury	Long-term Impact - Permanent	Major Interruptions
4 - Major	Substantial Cost - Multi-year Budget Impacts	Major Injury	Long-term Impact - Fixable	Significant Interruptions
3 - Moderate	Considerable Cost - Requires Revisions to	Moderate Injury	Medium-term Impact - Fixable	Moderate Interruptions
2 - Minor	Small/Minor Cost - within Budget Allocations.	Minor Injury	Short-term/Minor Impact - Fixable	Minor Interruptions
1 - 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 matrixes contained in Table 4-3. Total risk has been classified under the following categories:

- **Extreme Risk (E):** risk well beyond acceptable levels (red);
- **High Risk (H):** risk beyond acceptable levels (orange);
- **Medium Risk (M):** risk at acceptable levels, monitoring required to ensure risk does not become high (yellow); and
- **Low Risk (L):** risk at or below acceptable levels (green).

Table 4-3
Total Risk of Asset Failure Matrix

Bridges

Probability of Failure	Consequence of Failure			
	1	2	3	4
1	1	2	3	4
2	2	4	6	8
3	3	6	9	12
4	4	8	12	16

Land Improvements, Facilities, Machinery and Equipment, Vehicles and Sidewalks

Probability of Failure	Consequence of Failure				
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Water and Wastewater Mains

Probability of Failure	Consequence of Failure									
	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50

Stormwater Mains and Roads

Probability of Failure	Consequence of Failure									
	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Risk levels can be reduced or mitigated through planned maintenance, rehabilitation and/or replacement. 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 maintains risk at acceptable levels.

Please refer to Appendix A for the detailed risk assessment for each of the Municipality's capital assets. It is recommended that this risk assessment be refined further by Municipal staff in the future.

4.3 Priority Identification

Through discussions with Municipal staff and review of the asset risk of failure assessment, the following assets/categories were identified as being priorities of the Municipality:

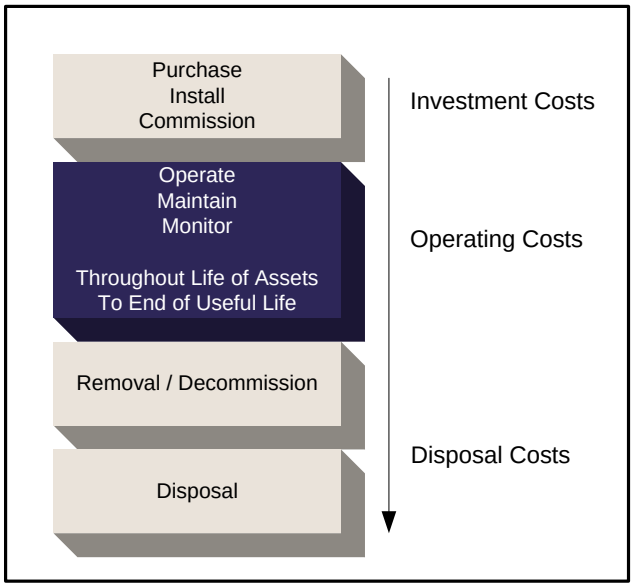
Table 4-4
Priorities Based on Asset Risk

Area / Category	Description	Total Risk	Planned Action
Roads	River Street - Various Sections	High	Replacement in short-term capital
Roads	Centre Street - Various Sections	High	Replacement in short-term capital
Roads	Weidman Line - Various Sections	High	Replacement in short-term capital
Storm	Elgin Street - Various Sections	High	Replacement in short-term capital
Storm	Mill Street - Various Sections	High	Replacement in short-term capital
Storm	Morrell Street - Various Sections	High	Replacement in short-term capital
Water	Water Tower Rehabilitation	High	Replacement in short-term capital
Wastewater	Treatment Plant - Instrumentation/HVAC, Blower	High	Replacement in short-term capital
Wastewater	Pumping Station River South Rehabilitation	High	Replacement in short-term capital
Facilities	Alvinston Fire Hall Mechanical	High	Replacement in short-term capital

4.4 Long-term Forecast

For many years, lifecycle costing has been used in the field of maintenance engineering and to evaluate the advantages of using alternative materials in construction or production design. The method has gained wider acceptance and has been used 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. The stages which an asset goes through in its lifecycle are as follows:

Figure 4-1
Asset Lifecycle Diagram



In defining the long-term forecast for the Municipality's asset management strategy, costs incurred through an asset's lifecycle were considered and documented.

Asset Replacement Analysis

In forecasting the Municipality's asset replacement needs, comparisons were made between the following scenarios:

- S*cenario 1: Replacement forecast based on "PSAB 3150 Asset Data"*
  - Utilizing the PSAB 3150 inventory, year of installation and estimated service life, the replacement of each asset was projected.
- *Scenario 2: Replacement forecast based on "Phased-in Approach*";
  - In addition to using the installation date, estimated useful life, the LOS, condition information and staff identified priorities were used, where applicable to better predict the timing of replacement. Results were smoothed over the forecast period.

Scenario 1: Replacement forecast based on "PSAB 3150 Asset Data"

The replacement forecast based on the PSAB 3150 asset data provides a snapshot of assets at or nearing the end of their useful lives from a purely financial accounting perspective.

Figures 4-2 to 4-4 below show the forecasts over a 10 year period, where approximately $84.99 million (replacement cost) in tax supported capital assets, $0 million in water capital assets and $1.9 million in wastewater capital assets are showing as "immediate needs". For this scenario, this simply means that these assets have reached the end of their accounting useful lives. Please refer to Appendix E for charts and graphs depicting the entire 20 year forecast for this scenario.

Figure 4-2
10 Year Forecast

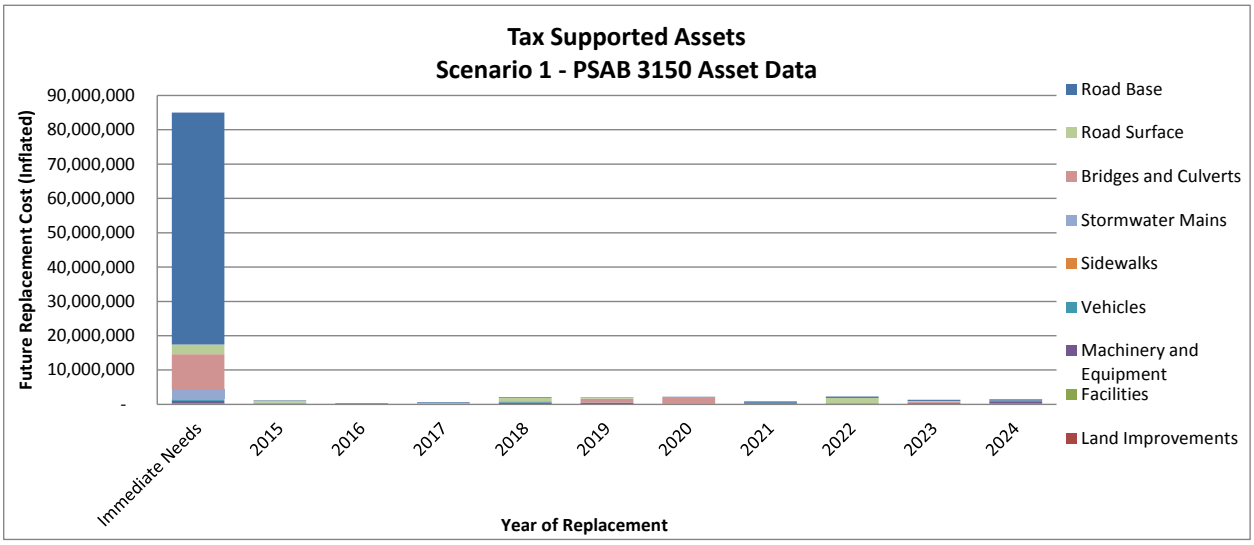


Figure 4-3
10 Year Forecast

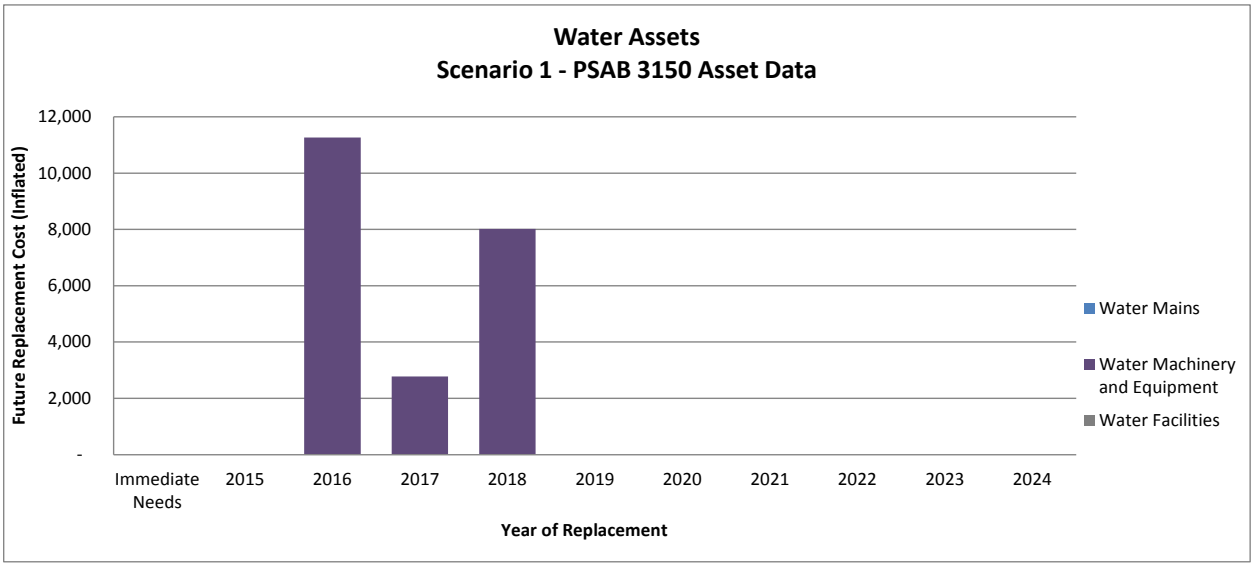
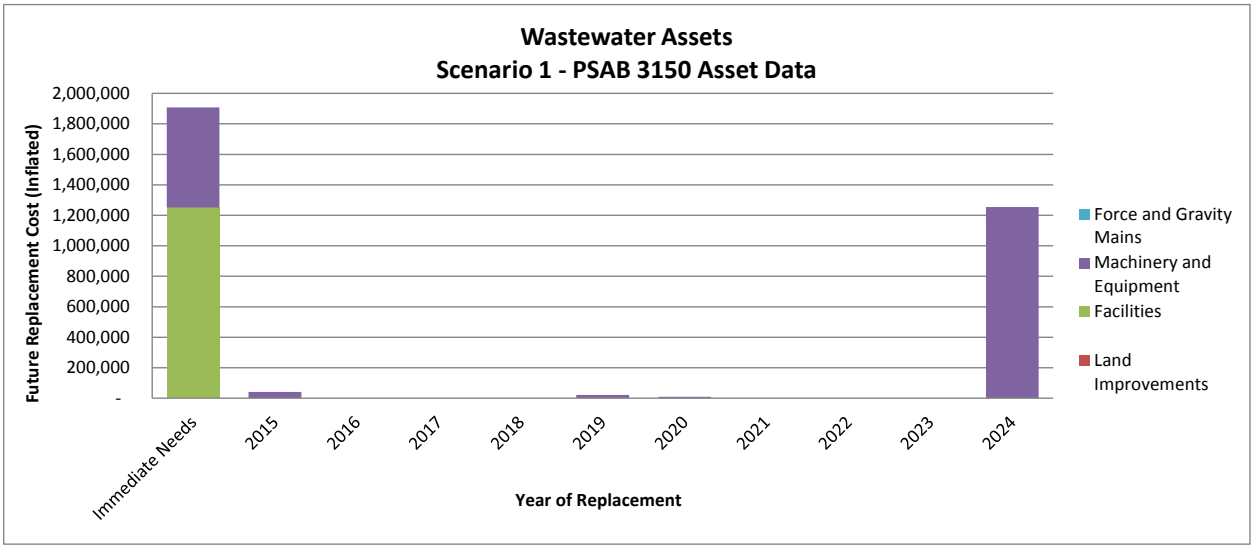


Figure 4-4
10 Year Forecast



Scenario 2: Replacement forecast based on "Phased-In Approach"

Within this scenario, adjustments were made based on discussions with staff and items that had been identified under the previous scenario have been distributed within the forecast period. The result of these adjustments is, $0 of tax supported capital assets, water capital assets and wastewater capital assets are identified as "immediate needs". Figures 4-8 to 4-10 show the 10 year forecasts under this scenario.

This is the recommended scenario for the Municipality, and should be reviewed and revised as necessary by Municipal staff as part of annual budget deliberations. This scenario allows for a

gradual increase in capital investments over the forecast period, with Municipal staff using the risk/priority rankings described in this chapter as a basis for selecting specific project timing.

Please refer to Appendix E for charts and graphs depicting the entire 20 year forecast for this scenario. A total of $56.35 million in tax supported, $2.7 million in water capital and $3.9 million in wastewater capital replacement needs are identified over the 20 year forecast period ($16.96 million, $22,100 and $2.3 million respectively in the first 10 years).

Maintenance, Non-Infrastructure Solutions, Renewal & Rehabilitation

For the recommended scenario to be feasible, the level of service adjustments discussed in Chapter 3 and Appendix D are required in conjunction with current level of service amounts in order to effectively maintain and rehabilitate the assets as needed. Appendix D provides additional rehabilitation and maintenance requirements over the forecast period.

The financing strategy discussed in the next Chapter will incorporate the level of service adjustments outlined in Appendix D into the recommended financing analysis. In addition, expansion related needs will be layered into the forecast to determine total capital needs for each year.

Figure 4-5
10 Year Forecast

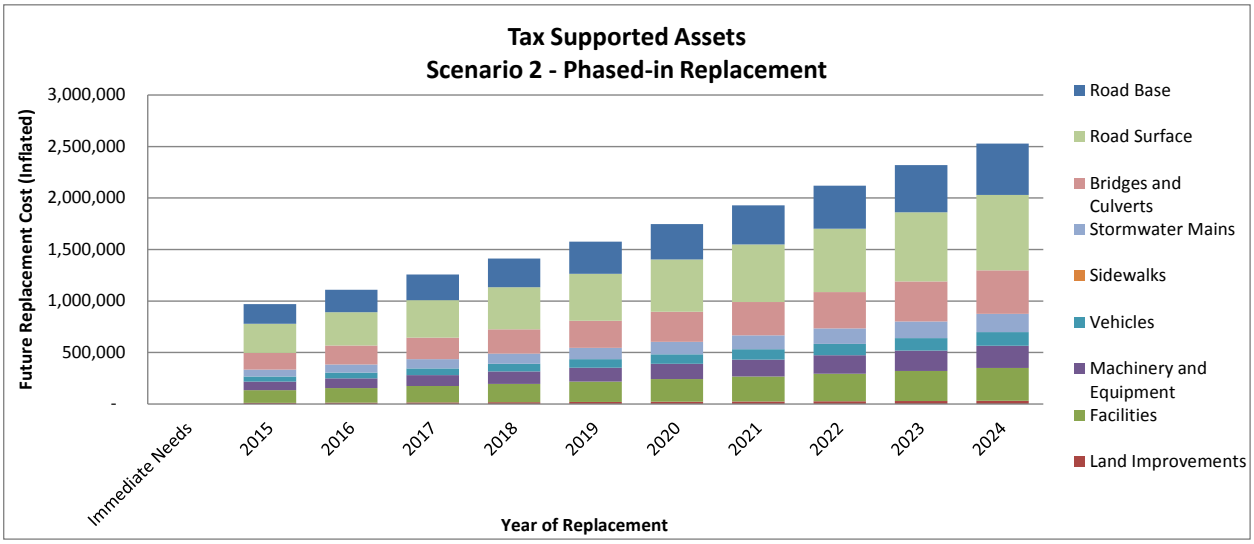


Figure 4-6
10 Year Forecast

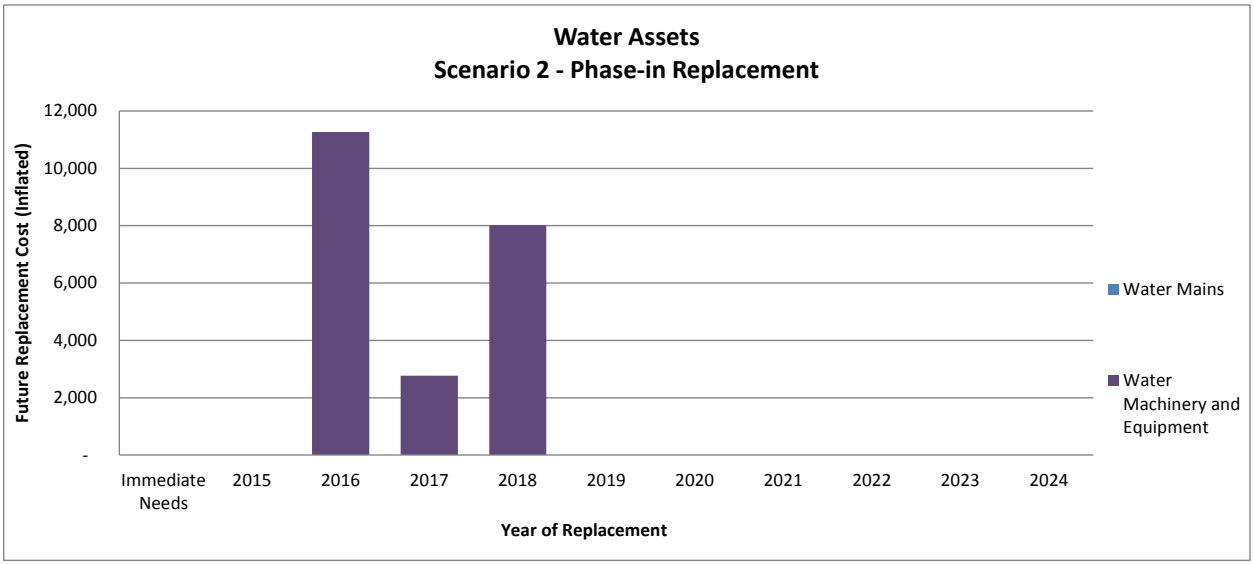
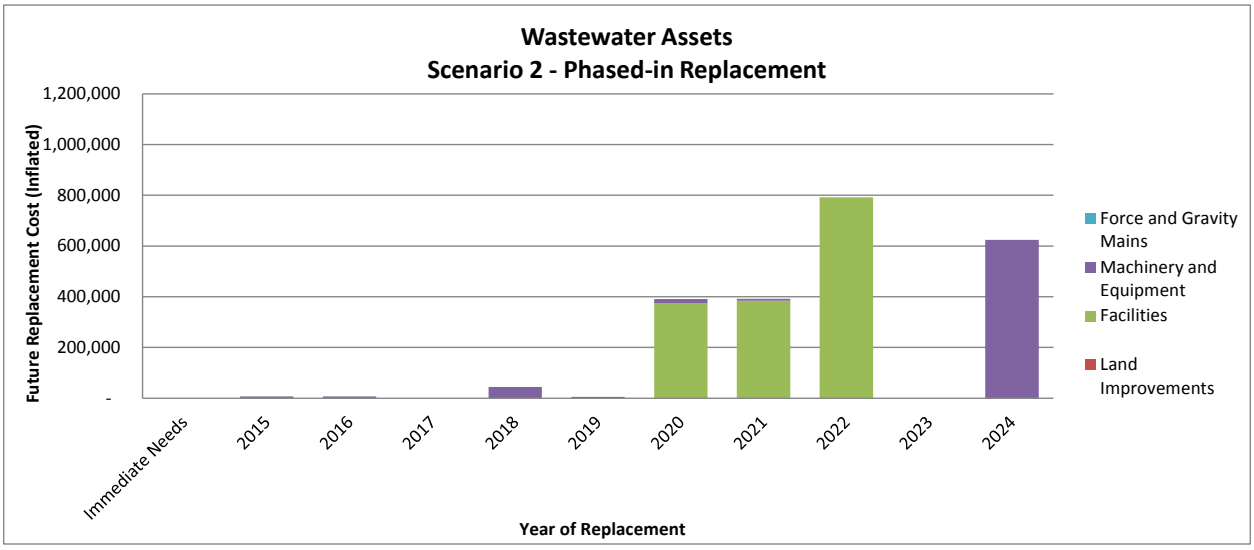


Figure 4-7
10 Year Forecast



4.5 Procurement Methods

Section 270(1) of the Municipal Act, S.O. 2001, provides that municipalities (and local boards) shall adopt and maintain policies with respect to its procurement of goods and services. Procurement policies are developed to provide a framework to support open, fair, transparent and accountable purchasing processes, and to ensure procurement processes are consistently managed. Moreover, the establishment of a by-law adopting the procurement policy provides a document which has the approval of Council, which allows an opportunity for public debate.

An effective procurement policy assists municipalities in identifying cost-effective options for providing services, while at the same time reducing risk. Innovative project management

models, such as public-private partnerships (P3's) or co-operative purchasing, can help bring together expertise, resources and funding opportunities. Where appropriate, bidders can be required to provide lifecycle costing for the products and/or services being tendered. Lifecycle costs can include initial construction/purchase price, plus operating costs for a contracted period of time. Incorporating a lifecycle perspective in the procurement process can encourage effective asset management in the time period following the initial capital investment.

In order to have an effective and efficient procurement program, especially related to the purchase/construction of large capital assets, the procurement policy can include clauses to protect the Municipality, as well as assist in receiving competitive responses. Examples include:

- Identification of the criteria used to determine the type of competitive process to be followed (i.e. tender, RFP, RFQ);
- Identification of circumstances when Sole Sourcing, Negotiation, and/or In-House Bids can be used;
- Description of the methods to be used for advertising a competitive process;
- Providing direction for purchasing in cases of emergency;
- Providing direction for purchasing as part of a co-operative purchasing group;
- Outlining any requirements related to bid deposits or other financial security;
- Inclusion of a non-discrimination clause highlighting positions such as having a 'no local preference' policy;
- Notification that any bid can be rejected by the Municipality;
- Identification of reasons for terminating a contract with a supplier/contractor (i.e. poor performance, unethical behaviour);
- Identification of restrictions on the types and/or amounts of damages to which bidders may be entitled, arising from their responding to a competitive process; and
- Requirement for bidders to supply proof of insurance and WSIB.

As part of the continuous asset management update process, it is recommended that the Municipality's procurement policies and procedures be reviewed and compared against procurement best practices to ensure resources are being allocated in an efficient manner.

5. FINANCING STRATEGY

5. FINANCING STRATEGY

5.1 Scope and Process

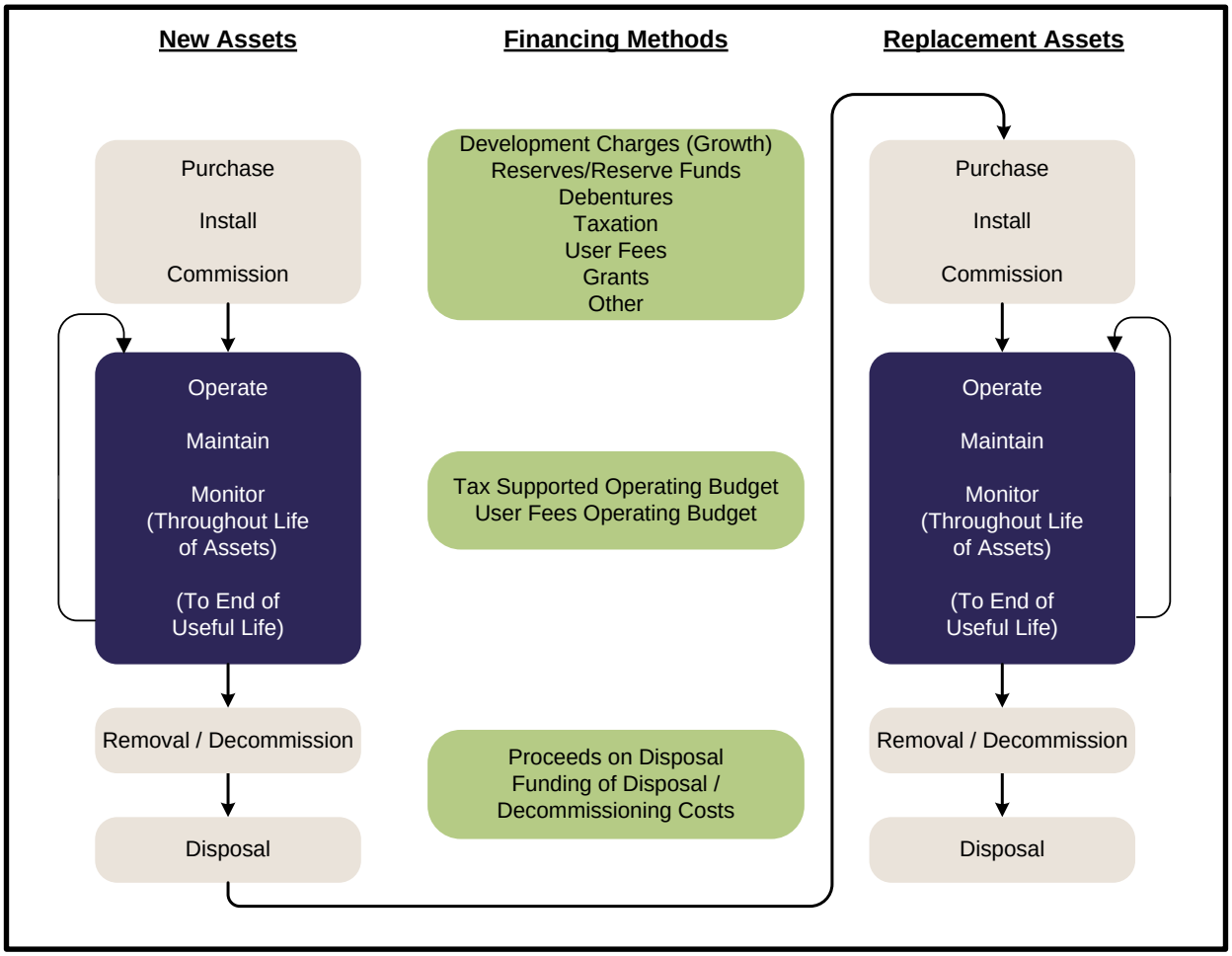
The financing strategy outlines the suggested financial approach to funding the recommended asset management strategy outlined in Chapter 4, while utilizing the Municipality's existing budget structure. This section of the asset management plan includes:

- Annual expenditure forecasts broken down by:
    - Maintenance/non-infrastructure solutions;
    - Renewal/rehabilitation activities;
    - Replacement/disposal activities; and
    - Expansion activities.
- Actual expenditures in the above named categories for 2012, 2013 and budget expenditures for 2014;
- A breakdown of annual funding/revenue by source;
- Identification of the funding shortfall, including how the impact will be managed; and
- All key assumptions are documented within Appendix B.

The long-term financing strategy forecast (including both expenditure and revenue sources) was prepared, consistent with the Municipality's departmental budget structure, so that it can be used in conjunction with the annual budget process. Various financing options, including taxation, reserves, reserve funds, debt, user fees and grants were considered and discussed with Municipal staff during the process. Figure 5-1 provides a visual representation of how various financing methods can be used for both initial asset purchases, as well as asset replacements.

For the recommended asset management strategy scenario, a detailed twenty (20) year plan was generated. The plan identifies specific maintenance & non-infrastructure solutions, renewal & rehabilitation, replacement & disposal, and expansion activities required for the 20 year forecast period as described in Chapter 4.

Figure 5-1
Financing Methods of Lifecycle Costs



5.2 Historical Results

Table 5-1 outlines the historical tax supported maintenance/non-infrastructure costs for 2012 and 2013, as well as 2014 budgeted results. All maintenance for assets was funded through taxation revenue for tax supported assets, water rates for water related assets and wastewater rates for wastewater related assets based on the Municipality's budget structure.

Table 5-1
Historical Results
Maintenance & Non-Infrastructure Solutions

Tax Supported

Description	Actual 2012	Actual 2013	Budget 2014
Asset Maintenance	683,370	521,958	706,856
Taxation Funding	683,370	521,958	706,856
Net Unfunded	-	-	-

Water Services

Description	Actual 2012	Actual 2013	Budget 2014
Asset Maintenance	134,371	111,028	170,109
Water Rate Revenue	134,371	111,028	170,109
Net Unfunded	-	-	-

Wastewater Services

Description	Actual 2012	Actual 2013	Budget 2014
Asset Maintenance	92,099	103,113	120,327
Wastewater Rate Revenue	92,099	103,113	120,327
Net Unfunded	-	-	-

Tables 5-2 outlines the historical capital results for 2012, 2013 and budgeted results for 2014, including renewal/rehabilitation, replacement/disposal, and expansion. The capital funding includes the use of reserve/reserve funds, gas tax funds, grants, as well as contributions from the operating budget.

Table 5-2
Tax Supported Historical Results
Renewal/Rehabilitation, Replacement/Disposal & Expansion

Description	Actual 2012	Actual 2013	Budget 2014
Capital Expenses			
Administration	11,588	4,874	45,000
Protection	71,846	64,015	85,244
Transportation	352,147	579,765	557,000
Environmental	-	-	-
Health	-	-	-
Recreation and Cultural	97,092	218,169	121,790
Planning and Development	8,200	-	50,000
Other - Assist River St Project	-	60,000	-
Capital Expenditures	**540,873**	**926,823**	**859,034**
Capital Financing			
Provincial/Federal Grants	-	73,525	-
Debt	-	-	-
Fees and Charges	-	4,142	8,300
Alvinston Fire	10,332	11,301	12,132
Inwood Fire	6,377	3,449	7,893
Enniskellen Share Culvert	-	4,035	-
County Share of Culverts	17,978	-	-
Other	16,154	-	-
Current Fund	490,033	649,756	703,719
Reserves / Reserve Funds: General		-	50,000
Reserves / Reserve Funds: Gas Tax		150,615	-
Reserves / Reserve Funds: Inwood Drainage		30,000	-
Reserves / Reserve Funds: CC Oylmpia		-	76,990
Total Capital Financing	**540,873**	**926,823**	**859,034**
Total Capital Expenditures less Capital Financing	**-**	**-**	**-**

5.3 Financing Strategy

Tax Supported

Table 5-3 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 F.

Table 5-3
Tax Supported Expenditure Forecast Summary

Asset Lifecycle Costs	Forecast									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Maintenance: Current Service Levels	720,993	735,413	750,121	765,124	780,426	796,034	811,955	828,194	844,758	861,653
Maintenance: LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Asset Maintenance	720,993	735,413	750,121	765,124	780,426	796,034	811,955	828,194	844,758	861,653
Renewal/Rehabilitation/Replacement	968,982	1,108,946	1,256,436	1,411,777	1,575,308	1,747,380	1,928,358	2,118,623	2,318,568	2,528,603
Replacement/Disposal - LOS Adjustment	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360
Total Replacement/Disposal	971,557	1,111,598	1,259,167	1,414,591	1,578,206	1,750,365	1,931,433	2,121,790	2,321,830	2,531,963
Total	**1,692,550**	**1,847,011**	**2,009,289**	**2,179,714**	**2,358,632**	**2,546,399**	**2,743,388**	**2,949,984**	**3,166,588**	**3,393,616**

Items in Table 5-3 labelled as "LOS Adjustment" refer to the level of service analysis discussed in Chapter 3 and Appendix D.

Table 5-4 summarizes the recommended strategy to finance the asset related costs identified in Table 5-3.

Table 5-4
Breakdown of Annual Tax Supported Funding (Revenue) by Source

Funding (Revenue) by Source	Forecast									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Taxation	720,993	735,413	750,121	765,124	780,426	796,034	811,955	828,194	844,758	861,653
Grants	-	-	-	-	-	-	-	-	-	-
Debentures	-	300,000	300,000	300,000	400,000	400,000	400,000	300,000	400,000	300,000
Gas Tax Reserve Funds	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778
Capital Reserve Fund	897,778	737,820	885,389	1,040,812	1,104,427	1,276,586	1,457,655	1,748,012	1,848,052	2,158,184
Total	**1,692,550**	**1,847,011**	**2,009,289**	**2,179,714**	**2,358,632**	**2,546,399**	**2,743,388**	**2,949,984**	**3,166,588**	**3,393,616**

These lifecycle costs are being recovered through several methods:

- Taxation funding is suggested for all maintenance costs, as well as level of service adjustment related costs related to operations.
- Debt financing is shown as required in years where significant capital needs are identified.
- Gas Tax funding has been shown as a stable and long-term funding source for eligible capital projects.
- The Municipality will be dependent upon maintaining healthy capital reserves/reserve funds in order to provide the remainder of the required lifecycle funding over the forecast period. This will require the Municipality to proactively increase amounts being transferred to these capital reserves during the annual budget process.

While the annual funding requirement may fluctuate, it is important for the Municipality to implement a consistent, yet increasing annual investment in capital so that the excess annual funds can accrue in capital reserve funds.

In order to fund the recommended asset requirements over the forecast period using the Municipality's own available funding sources (i.e. using taxation, gas tax funding and debentures), an increase in the Municipality's taxation levy of 5.20% per year would be required for each year of the forecast period. This assumes that operating related accounts within the Municipality's budget will increase at 2% per year. 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 Municipality's taxation levy would decrease.

Water

Table 5-5 shows the water 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 G.

Table 5-5
Water Expenditure Forecast Summary

Asset Lifecycle Costs	Forecast									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Maintenance: Current Service Levels	173,511	176,982	180,521	184,132	187,814	191,571	195,402	199,310	203,296	207,362
Maintenance: LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Asset Maintenance	173,511	176,982	180,521	184,132	187,814	191,571	195,402	199,310	203,296	207,362
Renewal/Rehabilitation/Replacement	-	11,263	2,773	8,021	-	-	-	-	-	-
Replacement/Disposal - LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Replacement/Disposal	-	11,263	2,773	8,021	-	-	-	-	-	-
Total	**173,511**	**188,244**	**183,294**	**192,153**	**187,814**	**191,571**	**195,402**	**199,310**	**203,296**	**207,362**

Items in Table 5-5 labelled as "LOS Adjustment" refer to the level of service analysis discussed in Chapter 3 and Appendix D

Table 5-6 summarizes the recommended strategy to finance the asset related costs identified in Table 5-5.

Table 5-6
Breakdown of Annual Water Funding (Revenue) by Source

Funding (Revenue) by Source	Forecast									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Water Rate Revenue	173,511	176,982	180,521	184,132	187,814	191,571	195,402	199,310	203,296	207,362
Grants	-	-	-	-	-	-	-	-	-	-
Debentures	-	-	-	-	-	-	-	-	-	-
Gas Tax Reserve Funds	-	-	-	-	-	-	-	-	-	-
Capital Reserve Fund	-	11,263	2,773	8,021	-	-	-	-	-	-
Total	**173,511**	**188,244**	**183,294**	**192,153**	**187,814**	**191,571**	**195,402**	**199,310**	**203,296**	**207,362**

These lifecycle costs are being recovered through several methods:

- Water rate revenue is suggested for all maintenance costs, as well as level of service adjustment related costs related to operations.

- The Municipality will be dependent upon maintaining healthy capital reserves/reserve funds in order to provide the remainder of the required lifecycle funding over the forecast period. This will require the Municipality to proactively increase amounts being transferred to these capital reserves during the annual budget process.

While the annual funding requirement may fluctuate, it is important for the Municipality to implement a consistent, yet increasing annual investment in capital so that the excess annual funds can accrue in capital reserve funds.

In order to fund the recommended asset requirements over the forecast period using the Municipality's own available funding sources (i.e. using water rate revenue and debentures), an increase in revenue (i.e. combination of growth and rate increases) of 25.0% per year would be required for each of the first two years of the forecast period, declining to 5.38% per year thereafter. The significant increases noted for the first two years are required for the water system to become self-sustaining over a two-year period, as currently the water system is being subsidized by taxation.

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 Municipality water rate revenue would decrease. In order to assess the impacts of the water rates specifically, a water rate study update would be required.

Wastewater

Table 5-7 shows the water 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 H.

Table 5-7
Wastewater Expenditure Forecast Summary

Asset Lifecycle Costs	Forecast									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Maintenance: Current Service Levels	122,733	125,188	127,692	130,245	132,850	135,507	138,217	140,982	143,801	146,677
Maintenance: LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Asset Maintenance	122,733	125,188	127,692	130,245	132,850	135,507	138,217	140,982	143,801	146,677
Renewal/Rehabilitation/Replacement	7,505	6,670	-	44,323	5,098	391,445	392,300	792,208	-	624,385
Replacement/Disposal - LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Replacement/Disposal	7,505	6,670	-	44,323	5,098	391,445	392,300	792,208	-	624,385
Total	**130,239**	**131,858**	**127,692**	**174,568**	**137,948**	**526,953**	**530,517**	**933,190**	**143,801**	**771,063**

Items in Table 5-7 labelled as "LOS Adjustment" refer to the level of service analysis discussed in Chapter 3 and Appendix D.

Table 5-8 summarizes the recommended strategy to finance the asset related costs identified in Table 5-7.

Table 5-8
Breakdown of Annual Wastewater Funding (Revenue) by Source

Funding (Revenue) by Source	Forecast									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Wastewater Rate Revenue	122,733	125,188	127,692	130,245	132,850	135,507	138,217	140,982	143,801	146,677
Grants	-	-	-	-	-	-	-	-	-	-
Debentures	-	-	-	-	-	100,000	300,000	650,000	-	400,000
Gas Tax Reserve Funds	-	-	-	-	-	-	-	-	-	-
Capital Reserve Fund	7,505	6,670	-	44,323	5,098	291,445	92,300	142,208	-	224,385
Total	**130,239**	**131,858**	**127,692**	**174,568**	**137,948**	**526,953**	**530,517**	**933,190**	**143,801**	**771,063**

These lifecycle costs are being recovered through several methods:

- Wastewater rate revenue is suggested for all maintenance costs, as well as level of service adjustment related costs related to operations.
- Debt financing is shown as required in years where significant capital needs are identified.
- The Municipality will be dependent upon maintaining healthy capital reserves/reserve funds in order to provide the remainder of the required lifecycle funding over the forecast period. This will require the Municipality to proactively increase amounts being transferred to these capital reserves during the annual budget process.

While the annual funding requirement may fluctuate, it is important for the Municipality to implement a consistent, yet increasing annual investment in capital so that the excess annual funds can accrue in capital reserve funds.

In order to fund the recommended asset requirements over the forecast period using the Municipality's own available funding sources (i.e. using wastewater rate revenue and debentures), an increase in revenue (i.e. combination of growth and rate increases) of 30% per year would be required for each of the first two years of the forecast period, declining to 7.26% thereafter. The significant increases noted for the first two years are required for the wastewater system to become self-sustaining over a two-year period, as currently the wastewater system is being subsidized by taxation.

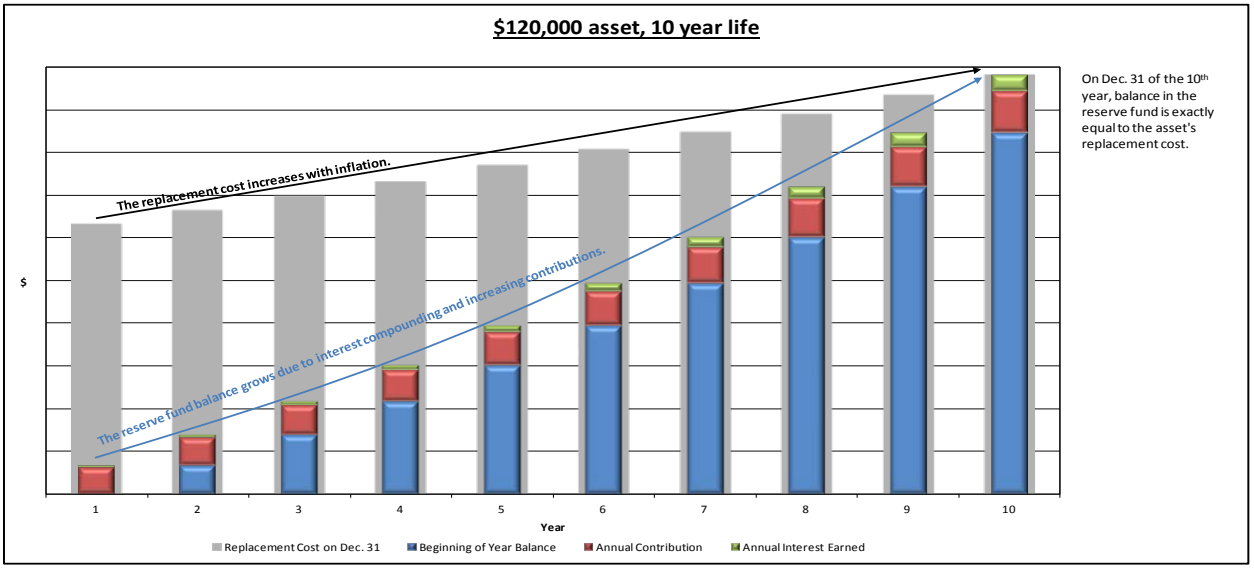
However, if other funding sources become available (i.e. grant funding) or if maintenance and rehabilitation practices allow for the deferral of capital works, then the impact on Municipality wastewater rate revenue would decrease. In order to assess the impacts of the wastewater rates specifically, a wastewater rate study update would be required.

5.4 Funding Shortfall

Assuming the Municipality maintains adequate capital reserve funds, the recommended asset management strategy discussed in Chapter 4 will be fully funded. It is believed this can be accomplished through each annual budget process. However, the recommended asset management strategy does defer significant capital replacements, in comparison to recommendations stated in various Municipality asset related reports. In the event that certain deferred replacements result in increased risks and/or projected asset failures, further funding may be required to address the costs associated with accelerating replacement timelines. In addition, in the event that the Municipality is not successful in recent grant applications, additional funding would be required in the short-term.

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 5-2 for an illustration of this method.

Figure 5-2
Sinking Fund Method



Tax Supported

From a tax supported asset base perspective, the estimated annual sinking fund requirement, based on using the calculations discussed above, is approximately $3.62 million (in 2014 dollars). Based on the Municipality's 2014 budget, current annual capital investment is approximately $1.02. This would provide a high level estimate of the Municipality's annual tax supported infrastructure funding deficit at $2.59 million (in 2013 dollars).

Water

From a water asset base perspective, the estimated annual sinking fund requirement, based on using the calculations discussed above, is approximately $370,000 (in 2014 dollars). Based on the Municipality's 2014 budget, current annual capital investment is approximately $0. This would provide a high level estimate of the Municipality's annual water infrastructure funding deficit at $370,000 (in 2014 dollars).

Wastewater

From a wastewater asset base perspective, the estimated annual sinking fund requirement, based on using the calculations discussed above, is approximately $393,000 (in 2014 dollars). Based on the Municipality's 2014 budget, current annual capital investment is approximately $0. This would provide a high level estimate of the Municipality's annual wastewater infrastructure funding deficit at $393,000 (in 2014 dollars).

Under the recommended financing strategy, the Municipality would be making proactive attempts to mitigate these funding gaps over the forecast period. Please see Figures 5-3 to 5-5 below for a 10 year forecast of implementing this strategy for tax supported, water and wastewater assets respectively. The blue portion of the graph outlines the current capital investment amounts, increasing at inflation over the forecast period. The red portion indicates the result of implementing recommended increases in available funding sources (resulting in increases in capital investment annually). The green represents optimal annual capital investment amounts (calculated as described above). Please note "optimal" capital investment funding can come from a number of additional sources, such as grants, donations, debt and other contributions. Please refer to Appendices F (tax supported), G (water) and H (wastewater) for 20 year versions of these graphs, indicating that if recommended annual funding levels are achieved, the annual infrastructure funding gap would be eliminated during the forecast period.

Figure 5-3
Tax Supported Assets

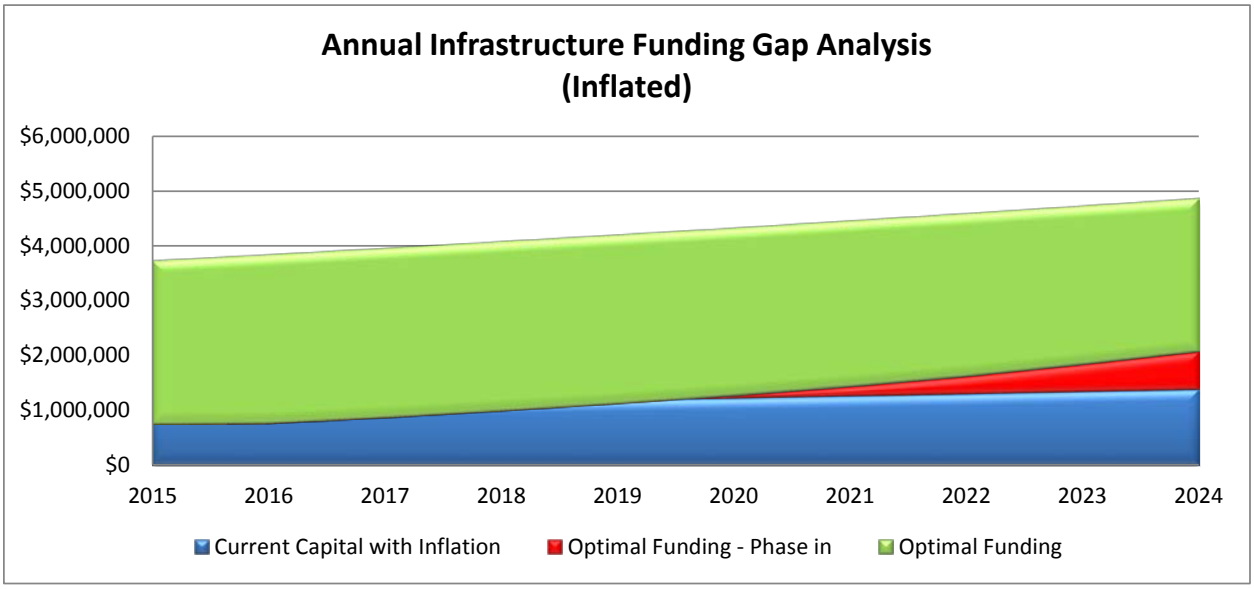


Figure 5-4
Water Assets

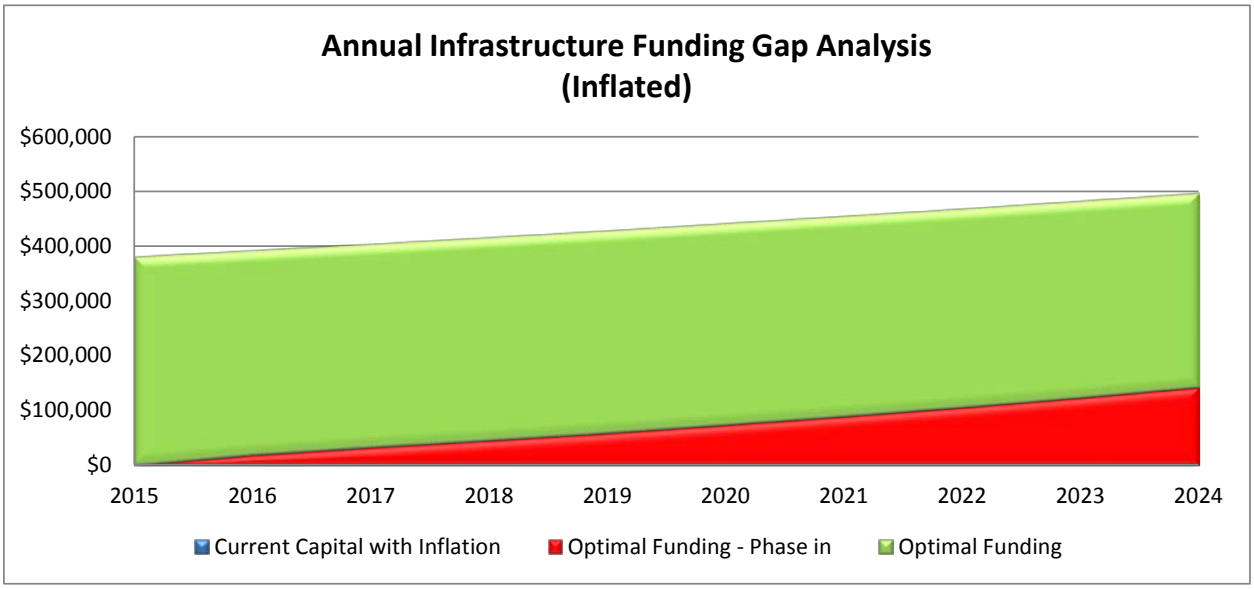
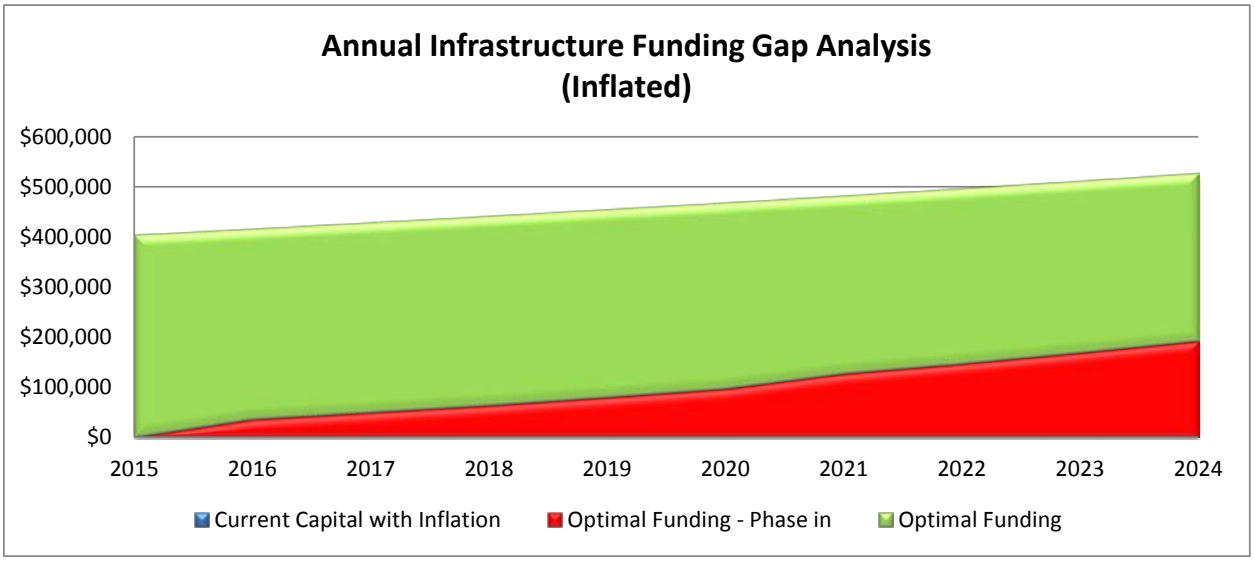


Figure 5-5
Wastewater Assets



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

- Decreasing expected levels of service to make available capital funding;
- Issuing debt for significant and/or unforeseen capital projects, in addition to the debt recommended within this report, while staying within the Municipality'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 development community for funding assistance with respect to growth/expansion related projects;
- Rate increases, where needed (i.e. taxation, user fees); or
- Implementing operating efficiencies (i.e. reduced operating costs to allow more capital investment).

6. RECOMMENDATIONS

6. RECOMMENDATIONS

The following recommendations have been provided for consideration:

- That the Municipality of Brooke-Alvinston Asset Management Plan be received and approved by Council;
- That consideration of this Asset Management Plan be made as part of the annual budgeting process to ensure sufficient capital funds are available to fund capital requirements; and
- That this Asset Management plan be updated as needed over time to reflect the current priorities of the Municipality.

The current level of funding for asset replacement and renewal at the Municipality will not sufficiently fund capital needs or close the infrastructure funding gap. As such, it is recommended that the following additional recommendations be considered during the annual budget process:

- Initiation of "level of service" (LOS) strategies discussed in Chapters 3, 4 and Appendix D;
- An increase in taxation as part of upcoming budget deliberations, dedicated to capital, to be transferred to capital reserve(s);
- Water and wastewater revenue increases consistent with the calculations provided in this report and should be verified through a rate study/financial plan project in the future;
- Allocating a portion (i.e. at least 50%) of any annual operating surplus to applicable capital reserve funds;
- Consider the capital priorities identified within this report when applying for future grants;
- When annual budget savings are realized from fully paying debt obligations, these budget savings are to be invested in future capital needs; and
- Increase the accuracy of the asset data (i.e. valuation, condition, useful life, remaining service life, etc…) in order to increase the accuracy of the overall asset management plan.

Substantial investment in capital needs will be required over the forecast period. Through the recommendations provided above, proactive steps would be taken to increase capital investment, as well as reduce the annual infrastructure funding gap for these assets. Enhanced level of service will assist in maintaining adequate asset conditions, mitigate asset risk, as well as potentially defer capital needs within the forecast period. In addition, the Municipality should pursue available capital grants, wherever possible, to further reduce the infrastructure funding gap.

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

APPENDIX A
DETAILED ASSET INVENTORY

TAX SUPPORTED CAPITAL ASSETS

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Land Improvements

Asset Description				Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age) 0 to 5	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
															5	5	25	
										$ 375,589	$ 213,854	$ 161,736	589,624					
Fire Services	G-2010-0411-0001	GROUNDS IMPROVEMENTS	ALVINSTON FIRE HALL	1992	20	0	20	0	22	5,646	5,646	-	8,616	0	5	2	10	M
Fire Services		LAND IMPROVEMENTS - Concrete Work (hydrant)	ALVINSTON FIRE HALL	2011	20	17	50	47	3	1,558	234	1,324	1,651	5	1	2	2	L
Fire Services		LAND IMPROVEMENTS - Concrete Work (rear pad)	ALVINSTON FIRE HALL	2012	20	18	50	48	2	3,762	376	3,385	3,947	5	1	2	2	L
Parks and Rec	G-2010-1635-0002	FENCING (FROM INS)	COMMUNITY CENTER GROUNDS	1980	20	0	20	0	34	40,515	40,515	-	121,490	0	5	2	10	M
Parks and Rec	G-2010-1635-0100	LIGHTING	COMMUNITY CENTER GROUNDS/INWOOD	1980	30	0	30	0	34	41,981	41,981	-	125,886	0	5	2	10	M
Parks and Rec	G-2010-1635-0003	BASEBALL DUGOUTS	COMMUNITY CENTER GROUNDS	1980	30	0	30	0	34	8,118	8,118	-	24,343	0	5	2	10	M
Parks and Rec	G-2010-1635-0200	PLAYGROUND EQUIPMENT	COMMUNITY CENTER GROUNDS	2006	10	2	10	2	8	20,349	16,279	4,070	23,774	1	4	2	8	M
Parks and Rec	G-2010-1635-0200	PLAYGROUND SOFT SURFACE	COMMUNITY CENTER GROUNDS	2006	10	2	10	2	8	24,666	19,733	4,933	28,818	1	4	2	8	M
Parks and Rec	G-2010-1635-0002	FENCING	BAI COMMUNITY CENTER	2006	20	12	20	12	8	2,896	1,158	1,738	3,383	3	2	2	4	L
Parks and Rec	G-2010-1635-0100	LIGHTING UPGRADES	BALL DIAMOND	2007	5	0	5	0	7	2,314	2,314	-	2,653	0	5	2	10	M
Parks and Rec	G-2010-1635-0210	SKATE BOARD PARK	COMMUNITY CENTER GROUNDS	2008	10	4	15	9	6	68,663	41,198	27,465	77,382	3	2	2	4	L
Parks and Rec		EXPANSION OF PLAYGROUND	COMMUNITY CENTER GROUNDS	2009	10	5	10	5	5	47,688	23,844	23,844	53,313	3	2	2	4	L
Parks and Rec		NEW LIGHTING BALL DIAMONDS	COMMUNITY CENTER GROUNDS	2012	30	28	30	28	2	57,656	3,844	53,813	60,493	5	1	2	2	L
Parks and Rec		FENCING	INWOOD	2009	20	15	20	15	5	11,572	2,893	8,679	12,937	4	1	2	2	L
Parks and Rec		NEW LIGHTING BALL DIAMOND	INWOOD	2010	30	26	30	26	4	24,976	3,330	21,646	27,036	4	1	2	2	L
Comm. Improv.		BENCHES	ALVINSTON	2011	20	17	20	17	3	2,035	305	1,730	2,156	4	1	2	2	L
Comm. Improv.		SWING	ALVINSTON	2012	10	8	10	8	2	8,245	1,649	6,596	8,651	4	1	2	2	L
Comm. Improv.		GAMES TABLE	ALVINSTON	2012	20	18	20	18	2	1,526	153	1,373	1,601	5	1	2	2	L
Comm. Improv.		BULLETIN BOARD	ALVINSTON	2012	10	8	10	8	2	1,425	285	1,140	1,495	4	1	2	2	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Buildings

Asset Description				RSMeans Allocation											Asset Age and Useful Life						Financial Information					Condition Rating (Based on Age)	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Building Type	Total Component Replacement Percentage	Windows and Doors	Roofing	Interiors	Conveying (Elevators)	Special Construction	Plumbing	HVAC	Fire Protection	Electrical	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated	Replacement Cost of Select Building Components					
																											5	5	25	
																					$ 3,268,656	$ 1,135,389	$ 2,133,267	$ 11,470,916	$ 5,289,553					
Administration	G-2020-0250-0001	MUNICIPAL OFFICES	MUNICIPAL OFFICE	Town Hall, Two Storey	25.0%	2.5%	0.0%	0.0%	0.0%		4.6%	0.0%	4.8%	13.1%	1953	75	14	75	14	61	95,623	77,773	17,850	1,410,561	353,107	1	4	3	12	M
Administration		BUILDING RENOVATIONS	MUNICIPAL OFFICE	Town Hall, Two Storey	49.9%	2.5%	1.6%	23.3%	0.0%		4.6%		4.8%	13.1%	2011	75	72	75	72	3	353,033	14,121	338,911	366,965	183,237	5	1	3	3	L
Administration		HVAC SYSTEM	MUNICIPAL OFFICE	Town Hall, Two Storey	100.0%							100.0%			2011	20	17	20	17	3	38,402	5,760	32,642	39,918	39,918	4	1	3	3	L
Administration		ELEVATOR (NEW)	MUNICIPAL OFFICE	Town Hall, Two Storey	100.0%				100.0%						2011	15	12	15	12	3	46,960	9,392	37,568	48,813	48,813	4	1	3	3	L
Fire Services	G-2020-0411-0001	BUILDING	ALVINSTON FIRE HALL	Fire Hall, One Storey	45.9%	5.0%	5.6%	11.1%	0.0%		11.8%	0.000%	4.7%	7.8%	1992	75	53	75	53	22	121,277	35,575	85,702	247,283	113,621	4	1	3	3	L
Fire Services	G-2020-0411-0002	STORAGE ROOM	ALVINSTON FIRE HALL	Fire Hall, One Storey	0.0%										2004	75	65	75	65	10	2,347	313	2,034	3,271	-	4	1	3	3	L
Fire Services		BUILDING IMPROVEMENTS - Interior Painting	ALVINSTON FIRE HALL	Fire Hall, One Storey	100.0%			100.0%							2012	20	18	20	18	2	3,859	386	3,474	3,926	3,926	5	1	3	3	L
Fire Services		BUILDING IMPROVEMENTS - Heater Repairs	ALVINSTON FIRE HALL	Fire Hall, One Storey	100.0%							100.0%			2013	10	9	10	9	1	4,689	469	4,220	4,751	4,751	5	1	3	3	L
Fire Services	G-2030-0411-0000	BUILDING MECHANICAL	ALVINSTON FIRE HALL	Fire Hall, One Storey	100.0%							100.0%			1992	20	0	20	0	22	12,881	12,881	-	26,264	26,264	0	5	3	15	H
Public Works	G-2020-0530-0001	STORAGE, MILL STREET	ALVINSTON	Warehouse	28.9%	1.4%	7.5%	8.6%	0.0%		0.0%	0.0%	0.0%	11.4%	1984	75	45	75	45	30	14,581	5,832	8,749	41,257	11,933	3	2	3	6	L
Public Works	G-2020-0500-0001	OFFICE GARAGE BROOKE LINE	BROOKE LINE	Garage, Repair	54.8%	3.7%	7.3%	7.4%	0.0%		6.9%	10.6%	5.9%	13.0%	1980	75	41	75	41	34	240,666	109,102	131,564	903,714	494,843	3	2	3	6	L
Public Works	G-2020-0500-0002	SAND/SALT SHED	BROOKE LINE		25.0%		25.0%								1990	75	51	75	51	24	103,321	33,063	70,258	200,449	50,112	3	2	3	6	L
Public Works	G-2020-0520-0001	GARAGE	ELGIN/LORNE ST	Garage, Repair	48.9%	3.7%	7.3%	7.4%	0.0%		6.9%	10.6%	0.0%	13.0%	1949	75	10	75	10	65	16,402	14,215	2,187	307,995	150,476	1	4	3	12	M
Public Works	G-2020-0520-0001	IMPROVEMENT GARAGE	ELGIN/LORNE ST	Garage, Repair	0.0%										2013	20	19	20	19	1	6,359		318	6,041	6,442	5	1	3	3	L
Public Works	G-2020-0520-0510	MTO OFFICE AND GARAGE	NAUVOO ROAD	Garage, Repair	47.5%	3.7%	0.0%	7.4%	0.0%		6.9%	10.6%	5.9%	13.0%	1962	75	23	75	23	52	31,036	21,518	9,518	371,309	176,211	2	3	3	9	M
Public Works	G-2020-0520-0511	IMPROVEMENT MTO GARAGE	NAUVOO ROAD		100.0%		100.0%								2006	30	22	30	22	8	10,187	2,716	7,470	12,636	12,636	4	1	3	3	L
Public Works	G-2020-0520-0515	SAND SHED # 1	NAUVOO ROAD		25.0%		25.0%								1962	75	23	75	23	52	6,205	4,302	1,903	74,236	18,559	2	3	3	9	M
Public Works	G-2020-0520-0516	SAND SHED #2	NAUVOO ROAD		25.0%		25.0%								1962	75	23	75	23	52	6,205	4,302	1,903	74,236	18,559	2	3	3	9	M
Public Works	G-2020-0501-0001	NEW ROOF SHED	WORKS DEPT		0.0%		0.0%								2003	20	9	20	9	11	12,813	7,047	5,766	19,032	-	2	3	3	9	M
Parks and Rec	G-2020-1635-0001	ARENA & COMMUNITY CENTER	ALVINSTON	Rink, Hockey/Community Centre	45.3%	2.2%	0.0%	15.0%	0.0%	15.0%		5.0%	3.1%	5.0%	1977	75	38	75	38	37	1,241,389	612,419	628,970	6,099,244	2,765,111	3	2	3	6	L
Parks and Rec	G-2020-1635-0001	BUILDING IMPROVEMENT - NEW COMMUNITY HALL WASHROOMS	BAI COMMUNITY CENTER		100.0%						100.0%				2004	48	38	48	38	10	137,959	28,741	109,217	192,256	192,256	4	1	3	3	L
Parks and Rec		BUILDING INPROVEMENTS	BAI COMMUNITY CENTER		100.0%			100.0%							2010	45	41	45	41	4	27,927	2,482	25,445	30,217	30,217	5	1	3	3	L
Parks and Rec		NEW DOOR LOCKS	BAI COMMUNITY CENTER		100.0%										2011	20	17	20	17	3	11,791	1,769	10,022	12,256	12,256	4	1	3	3	L
Parks and Rec		NEW ROOF	BAI COMMUNITY CENTER		100.0%		100.0%								2011	20	17	20	17	3	127,114	19,067	108,047	132,131	132,131	4	1	3	3	L
Parks and Rec	G-2030-1635-0501	ROOF TOP AIR CONDITIONERS	BIACC ROOF OVER HALL		100.0%							100.0%			2008	20	14	20	0	6	40,973	12,292	28,681	43,455	43,455	4	1	3	3	L
Parks and Rec		VENTILATION	BAI COMMUNITY CENTER		100.0%							100.0%			2011	5	2	5	0	3	4,783	2,870	1,913	4,972	4,972	2	3	3	9	M
Parks and Rec	G-2021-1635-0001	NEW LIGHTING	BAICC ALL		100.0%									100.0%	2009	10	5	10	0	5	35,718	21,283	14,435	38,619	38,619	3	2	3	6	L
Parks and Rec		INTERIOR BEAM PAINTING	BAI COMMUNITY CENTER		100.0%			100.0%							2011	20	17	20	17	3	35,553	5,333	30,220	36,956	36,956	4	1	3	3	L
Parks and Rec		IMPROVEMENT - AIR EXCHANGER	BAI COMMUNITY CENTER		100.0%							100.0%			2013	10	9	10	9	1	7,610	761	6,849	7,710	7,710	5	1	3	3	L
Parks and Rec		HALL UPGRADES	BAI COMMUNITY CENTER		100.0%			100.0%							2009	43	38	43	38	5	10,126	1,177	8,949	10,949	10,949	4	1	3	3	L
Parks and Rec	G-2020-1637-0010	CONCESSION BOOTH RENOVATIONS	BAI COMMUNITY CENTER		31.2%	2.8%	6.5%	5.0%	0.0%	0.0%	6.9%	0.0%	0.0%	10.0%	2007	45	38	45	38	7	6,799	1,058	5,741	7,900	2,463	4	1	3	3	L
Parks and Rec		CONCESSION UPGRADES	BAI COMMUNITY CENTER		100.0%										2009	43	38	43	38	5	1,672	194	1,477	1,807	1,807	4	1	3	3	L
Parks and Rec	G-1639-2020-0001	WASHROOMS & SNACK BAR	INWOOD		31.2%	2.8%	6.5%	5.0%	0.0%	0.0%	6.9%	0.0%	0.0%	10.0%	1955	75	16	75	16	59	6,019	4,735	1,284	86,470	26,958	1	4	3	12	M
Parks and Rec	G-1639-2020-0002	PICNIC SHELTER	INWOOD		100.0%										1985	50	21	50	21	29	16,843	9,769	7,074	45,404	45,404	2	3	3	9	M
Parks and Rec	G-1639-2020-0003	STORAGE BUILDING	INWOOD	Warehouse	28.9%	1.4%	7.5%	8.6%	0.0%		0.0%	0.0%	0.0%	11.4%	1955	75	16	75	16	59	583	459	124	8,375	2,422	1	4	3	12	M
Parks and Rec		SEWER	INWOOD		0.0%										2009	20	15	20	15	5	10,315	2,579	7,736	11,153	-	4	1	3	3	L
Library		ORIGINAL BUILDING	ALVINSON RIVER STREET	Library	39.3%	2.8%		16.1%	0.0%		5.0%		3.3%	12.1%	1985	75	46	75	46	29	35,905	13,883	22,022	96,791	38,063	3	2	3	6	L
Library		NEW ADDITION TO LIBRARY	ALVINSON RIVER STREET	Library	41.5%	2.8%	2.2%	16.1%	0.0%		5.0%		3.3%	12.1%	2005	75	66	75	66	9	132,918	15,950	116,968	175,933	73,056	4	1	3	3	L
Library		NEW ROOF OLD LIBRARY SECTION	ALVINSON RIVER STREET	Library	100.0%		100.0%								2005	25	16	25	16	9	5,145	1,852	3,293	6,811	6,811	3	2	3	6	L
Library		FURNACE REPLACEMENT	ALVINSON RIVER STREET	Library	100.0%							100.0%			2005	20	11	20	11	9	6,980	3,141	3,839	9,239	9,239	3	2	3	6	L
Library	G-2020-1642-0001	BUILDING	INWOOD LIBRARY	Library	0.0%										2003	22	11	22	11	11	14,315	7,158	7,158	21,262	-	3	2	3	6	L
Library	G-2020-1642-0002	NEW ROOF	INWOOD LIBRARY	Library	100.0%		100.0%								2008	30	24	30	24	6	2,718	544	2,174	2,882	2,882	4	1	3	3	L
Library	G-2020-1642-0001	BUILDING - IMPROVEMENT	INWOOD LIBRARY	Library	39.3%	2.8%		16.1%	0.0%		5.0%		3.3%	12.1%	2013	50	49	50	49	1	205,317	4,106	201,211	208,017	81,802	5	1	3	3	L
Library	G2030-1642-0001	NEW FURNACE	INWOOD LIBRARY	Library	100.0%							100.0%			2005	20	11	20	11	9	2,199	989	1,209	2,910	2,910	3	2	3	6	L
Comm. Improv.		GAZEBO	ALVINSTON		100.0%										2010	30	26	30	26	4	11,315	1,509	9,806	12,242	12,242	4	1	3	3	L
Comm. Improv.		ELECTRICAL TO GAZEBO	ALVINSTON		100.0%									100.0%	2011	30	27	30	27	3	1,826	183	1,643	1,898	1,898	5	1	3	3	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Machinery & Equipment, Fixtures, IT Communications, Security

Asset Description					Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age) 0 to 5	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Financial Statements Category	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
																5	5	25	
Administration			MUNICIPAL OFFICE	FIXTURES	2001	20	7	20	7	13	$ 1,662,420	$ 1,110,671	$ 551,749	$ 2,135,817					
Administration	G-2021-0250-0001	NEW LIGHTING	MUNICIPAL OFFICE	FIXTURES	2008	10	4	10	4	6	6,681	4,009	2,673	7,530	2	3	2	6	L
Administration		OFFICE CHAIRS	MUNICIPAL OFFICE	FIXTURES	2009	5	0	20	15	5	1,716	1,716	-	1,918	4	1	2	2	L
Administration		COUNCIL CHAIRS	MUNICIPAL OFFICE	FIXTURES	2009	5	0	20	15	5	1,180	1,180	-	1,319	4	1	2	2	L
Administration		NEW FILING SYSTEM CABINETS	MUNICIPAL OFFICE	FIXTURES	2012	10	8	20	18	2	3,806	761	3,045	3,993	5	1	2	2	L
Administration	G-2030-0250-0001	DIESEL GENERATOR	MUNICIPAL OFFICE	MACHINERY & EQUIPMENT	2005	20	11	20	11	9	17,720	5,724	11,996	21,038	3	2	2	4	L
Administration	G-2030-0250-0001	DIESEL GENERATOR	MUNICIPAL OFFICE	MACHINERY & EQUIPMENT	2006	20	12	20	12	8	5,900	2,360	3,540	6,893	3	2	2	4	L
Administration		EMERGENCY POWER	MUNICIPAL OFFICE	MACHINERY & EQUIPMENT	2011	10	7	10	7	3	4,830	1,449	3,381	5,116	4	1	2	2	L
Administration	G-2031-0250-1100	SECURITY SYSTEM	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2005	10	1	10	1	9	2,489	2,240	249	2,955	1	4	2	8	M
Administration	G-2031-0250-0100	KEYSTONE COMPLETE COMPUTER PROGRAMS ACC	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2007	15	8	15	8	7	34,560	16,128	18,432	39,619	3	2	2	4	L
Administration		PHONE SYSTEM	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2009	5	0	10	5	5	975	975	-	1,090	3	2	2	4	L
Administration		AUDIO EQUIPMENT	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2011	5	2	5	2	3	2,049	1,230	820	2,171	2	3	2	6	L
Administration		SECURITY SYSTEM	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2011	5	2	10	7	3	3,316	1,990	1,327	3,513	4	1	2	2	L
Administration		COMPUTERS & EQUIPMENT	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2012	5	3	5	3	2	7,782	3,113	4,669	8,165	3	2	2	4	L
Administration		COMPUERS & EQUIPMENT	MUNICIPAL OFFICE	IT, COMMUNICATIONS, SECURITY	2013	5	4	5	4	1	3,088	618	2,470	3,188	4	1	2	2	L
Fire Services	G-2030-0413-0010	11 HP HONDA PORTABLE PUMP	WATFORD FIRE HALL	MACHINERY & EQUIPMENT	2006	5	0	5	0	8	4,780	4,780	-	5,585	0	5	3	15	H
Fire Services		A/V SYSTEM	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	2013	5	4	5	4	1	1,159	232	927	1,196	4	1	3	3	L
Fire Services		AIR FILLER STATION	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2012	10	8	10	8	2	11,026	2,205	8,821	11,569	4	1	3	3	L
Fire Services		AIR FILLER SYSTEM	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2012	10	8	10	8	2	10,925	2,185	8,740	11,462	4	1	3	3	L
Fire Services		AIR FILLER SYSTEM	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2013	10	9	10	9	1	7,777	778	6,999	8,028	5	1	3	3	L
Fire Services	G-2030-0411-0012	BLITZFIRE COMBINATION (2.5 in nozzle)	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2007	5	0	12	5	7	2,369	2,369	-	2,716	2	3	3	9	M
Fire Services		COMMUNICATIONS PORTABLES	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2010	5	1	5	1	4	3,097	2,477	619	3,352	1	4	3	12	M
Fire Services	G-2031-0411-0003	COMMUNICATIONS EQUIPMENT	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	2005	5	0	5	0	9	2,957	2,957	-	3,510	0	5	3	15	H
Fire Services		COMMUNICATIONS EQUIPMENT	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	2011	5	2	5	2	3	9,318	5,591	3,727	9,871	2	3	3	9	M
Fire Services		COMMUNICATIONS EQUIPMENT	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	2013	5	4	5	4	1	2,085	417	1,668	2,153	4	1	3	3	L
Fire Services	G-2031-0412-0000	COMMUNICATIONS TOWER & PORTABLES	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2002	5	0	5	0	12	1,397	1,397	-	1,769	0	5	3	15	H
Fire Services	G-2030-0412-2003	COMPRESSOR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2004	10	0	10	0	10	791	791	-	956	0	5	3	15	H
Fire Services		COMPRESSOR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2010	10	6	10	6	4	3,481	1,393	2,089	3,768	3	2	3	6	L
Fire Services	G-2031-0412-0000	COMPUTER	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2003	5	0	5	0	11	1,081	1,081	-	1,328	0	5	3	15	H
Fire Services		COMPUTER	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2011	5	2	5	2	3	610	366	244	647	2	3	3	9	M
Fire Services	G-2030-0412-0201	EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2007	5	0	5	0	7	11,120	11,120	-	12,748	0	5	3	15	H
Fire Services	G-2030-0412-0202	EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2008	5	0	5	0	6	4,161	4,161	-	4,690	0	5	3	15	H
Fire Services		EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	423	212	212	473	3	2	3	6	L
Fire Services		EQUIPMENT GATE VALUE & OTHER SMALL EQUIP	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	2,215	1,108	1,108	2,477	3	2	3	6	L
Fire Services		EQUIPMENT JAWS OF LIFE	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	14,834	7,417	7,417	16,583	3	2	3	6	L
Fire Services		EQUIPMENT TO FILL AIR TANKS 1/2 SHARE WITH ALVI	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	4,645	2,323	2,323	5,193	3	2	3	6	L
Fire Services		FURNITURE (TABLES AND CHAIRS)	ALVINSTON FIRE HALL	FIXTURES	2010	10	6	10	6	4	2,049	820	1,229	2,218	3	2	3	6	L
Fire Services		GAS POWER HONDA PUMP	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2010	5	1	5	1	4	687	550	137	744	1	4	3	12	M
Fire Services		GENERAL EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	5,852	2,341	3,511	6,140	3	2	3	6	L
Fire Services		GENERATOR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2013	10	9	10	9	1	4,335	433	3,901	4,474	5	1	3	3	L
Fire Services	G-2030-0411-0009	GENERATOR (rescue truck)	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2003	10	0	15	4	11	2,320	2,320	-	2,851	1	4	3	12	M
Fire Services	G-2030-0411-0015	HEARTSTART DEFIB	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2007	5	0	5	0	7	3,384	3,384	-	3,880	0	5	3	15	H
Fire Services	G-2030-0412-0200	HI-VOL HOSE ETC	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2005	5	0	5	0	9	4,068	4,068	-	4,829	0	5	3	15	H
Fire Services	G-2030-0411-0003	HONDA ENGINE & FAN	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2001	10	0	23	10	13	2,919	2,919	-	3,773	2	3	3	9	M
Fire Services		HOSES & VALVES	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2011	5	2	5	2	3	4,522	2,713	1,809	4,790	2	3	3	9	M
Fire Services	G-2030-0411-0013	MID-FORCE W/GRIP 1.5"	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2007	5	0	5	0	7	741	741	-	849	0	5	3	15	H
Fire Services		OFFICE EQUIPMENT	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2010	5	1	5	1	4	819	656	164	887	1	4	3	12	M
Fire Services	G-2031-0412-0001	PAGERS	INWOOD FIRE	IT, COMMUNICATIONS, SECURITY	2008	5	0	5	0	6	4,097	4,097	-	4,618	0	5	3	15	H
Fire Services		PERSONNEL SAFETY EQUIP BUNKER GEAR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	6,908	2,763	4,145	7,248	3	2	3	6	L
Fire Services	G-2030-0411-0101	PERSONNEL SAFETY EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2005	5	0	10	1	9	8,962	8,962	-	10,640	1	4	3	12	M
Fire Services	G-2030-0411-0102	PERSONNEL SAFETY EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2005	5	0	10	1	9	2,051	2,051	-	2,435	1	4	3	12	M
Fire Services	G-2030-0411-0103	PERSONNEL SAFETY EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2006	5	0	10	2	8	3,314	3,314	-	3,871	1	4	3	12	M
Fire Services	G-2030-0412-0105	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2001	5	0	5	0	13	3,977	3,977	-	5,140	0	5	3	15	H
Fire Services	G-2030-0412-0105	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2002	5	0	5	0	12	1,330	1,330	-	1,684	0	5	3	15	H
Fire Services	G-2030-0412-0100	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2005	5	0	5	0	9	1,512	1,512	-	1,795	0	5	3	15	H
Fire Services	G-2030-0412-0100	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2005	5	0	5	0	9	824	824	-	979	0	5	3	15	H
Fire Services	G-2030-0412-0100	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2006	5	0	5	0	8	7,828	7,828	-	9,146	0	5	3	15	H
Fire Services	G-2030-0412-0100	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2006	5	0	5	0	8	2,081	2,081	-	2,431	0	5	3	15	H
Fire Services	G-2030-0412-0100	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2006	5	0	5	0	8	9,909	9,909	-	11,577	0	5	3	15	H
Fire Services	G-2030-0412-0100	PERSONNEL SAFETY EQUIPMENT	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2007	5	0	5	0	7	8,830	8,830	-	10,123	0	5	3	15	H
Fire Services		PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2013	5	4	5	4	1	3,919	784	3,135	4,045	4	1	3	3	L
Fire Services	G-2030-0411-0110	PERSONNEL SAFETY EQUIPMENT AIR PACKS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2008	5	0	10	4	6	3,891	3,891	-	4,385	2	3	3	9	M
Fire Services	G-2030-0411-0111	PERSONNEL SAFETY EQUIPMENT AIR PACKS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2009	5	0	10	5	5	6,536	6,536	-	7,307	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT AIR PACKS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2010	5	1	10	6	4	361	288	72	390	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT AIR PACKS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2011	5	2	5	2	3	8,472	5,083	3,389	8,975	2	3	3	9	M
Fire Services		PERSONNEL SAFETY EQUIPMENT AIR PACKS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	5,470	2,188	3,282	5,740	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT AIR PACKS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2013	5	4	5	4	1	16,781	3,356	13,425	17,322	4	1	3	3	L
Fire Services	G-2030-0411-0104	PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2008	5	0	10	4	6	12,382	12,382	-	13,954	2	3	3	9	M
Fire Services	G-2030-0411-0005	PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2009	5	0	10	5	5	12,553	12,553	-	14,033	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2010	5	1	10	6	4	6,652	5,321	1,330	7,200	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	4,639	1,855	2,783	4,867	3	2	3	6	L
Fire Services	G-2030-0412-0105	PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2007	5	0	10	3	7	10,012	10,012	-	11,477	2	3	3	9	M

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Machinery & Equipment, Fixtures, IT Communications, Security

Asset Description					Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age) 0 to 5	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Financial Statements Category	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
Fire Services	G-2030-0412-0105	PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2008	5	0	10	4	6	5,785	5,785	-	6,520	2	3	3	9	M
Fire Services		PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2009	5	0	10	5	5	2,917	2,917	-	3,261	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2010	5	1	10	6	4	1,612	1,290	322	1,745	3	2	3	6	L
Fire Services		PERSONNEL SAFETY EQUIPMENT BUNKER GEAR	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2011	5	2	10	7	3	6,225	3,735	2,490	6,595	4	1	3	3	L
Fire Services	G-2031-0412-0002	PROJECTOR - TRAINING EQUIP	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2008	5	0	10	4	6	461	461	-	520	2	3	3	9	M
Fire Services	G-2021-0411-0001	RACK FOR CLOTHING AND BOOTS	ALVINSTON FIRE HALL	FIXTURES	2006	75	67	75	67	8	3,703	395	3,308	4,327	4	1	3	3	L
Fire Services	G-2031-0411-0001	RADIO TOWER & ANTENNA	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	1992	15	0	15	0	22	2,726	2,726	-	4,160	0	5	3	15	H
Fire Services	G-2031-0412-0000	RADIO UPGRADE	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2003	10	0	10	0	11	6,331	6,331	-	7,779	0	5	3	15	H
Fire Services	G-2031-0411-0002	RADIOS AND PAGERS	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	2002	5	0	5	0	12	2,194	2,194	-	2,778	0	5	3	15	H
Fire Services	G-2031-0411-0004	RADIOS AND PAGERS	ALVINSTON FIRE HALL	IT, COMMUNICATIONS, SECURITY	2006	5	0	5	0	8	5,726	5,726	-	6,690	0	5	3	15	H
Fire Services	G-2031-0412-0000	RADIOS AND PAGERS	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2002	5	0	5	0	12	1,438	1,438	-	1,821	0	5	3	15	H
Fire Services	G-2031-0412-0001	RADIOS AND PAGERS	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2007	5	0	5	0	7	1,853	1,853	-	2,124	0	5	3	15	H
Fire Services		RADIOS AND PAGERS	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2011	5	2	5	2	3	5,675	3,405	2,270	6,012	2	3	3	9	M
Fire Services		RADIOS AND PAGERS	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2012	5	3	5	3	2	1,106	443	664	1,161	3	2	3	6	L
Fire Services		RESCUE AIR BAG SYSTEM	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2011	5	2	5	2	3	4,113	2,468	1,645	4,357	2	3	3	9	M
Fire Services		RESCUE SAW	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2010	5	1	5	1	4	2,126	1,701	425	2,302	1	4	3	12	M
Fire Services	G-2030-0411-0008	ROOF SAW	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2003	5	0	16	5	11	1,949	1,949	-	2,395	2	3	3	9	M
Fire Services	G-2030-0411-0014	SIMO PUMP & RELATED CONNECTIONS	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2008	5	0	5	0	6	15,918	15,918	-	17,939	0	5	3	15	H
Fire Services	G-2031-0412-0000	TOWER	INWOOD FIRE HALL	IT, COMMUNICATIONS, SECURITY	2002	15	3	15	3	12	5,406	4,325	1,081	6,845	1	4	3	12	M
Fire Services		TRAINING TV SYSTEM	INWOOD FIRE HALL	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	1,590	636	954	1,668	3	2	3	6	L
Fire Services	G-2030-0411-0016	VARIOUS EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	14,220	7,110	7,110	15,898	3	2	3	6	L
Fire Services		VARIOUS EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2010	10	6	10	6	4	7,009	2,803	4,205	7,587	3	2	3	6	L
Fire Services		VARIOUS EQUIPMENT	ALVINSTON FIRE HALL	MACHINERY & EQUIPMENT	2011	5	2	5	2	3	9,478	5,687	3,791	10,040	2	3	3	9	M
Public Works		1635 MASSEY FERGUSON LOADER AND MORE	COMMUNITY CENTER	MACHINERY & EQUIPMENT	2014	10	10	10	10	0	-	-	-	20,000	5	1	3	3	L
Public Works	G-2030-0633-0301	BOBCAT CT235, LOADER & MID MOUNT MOWER	COMMUNITY CENTER	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	7,000	3,138	3,863						
Public Works	G-2030-0600-0502	FUEL TANKS	ELGIN & TRUCK	MACHINERY & EQUIPMENT	2002	10	0	10	0	12	4,892	4,892	-	6,194	3	2	3	6	L
Public Works	G-2030-0632-0100	MASSEY FERGUSON TRACTOR/LOADER	WORKS DEPT	MACHINERY & EQUIPMENT	1978	10	0	10	0	36	16,000	16,000	-	57,745	0	5	1	5	L
Public Works	G-2030-0611-0001	GRADER CATERPILLAR MODEL 14G	WORKS DEPT	MACHINERY & EQUIPMENT	1993	20	0	20	0	21	187,712	177,712	10,000	281,969	1	4	2	8	M
Public Works	G-2030-0610-0002	1998 CATERPILLAR 140H GRADER	WORKS DEPT	MACHINERY & EQUIPMENT	1998	20	4	20	4	16	203,305	154,644	48,661	284,677	2	3	3	9	M
Public Works	G-2030-0600-0500	PORTABLE KOKIAK 5500 GENERATOR	WORKS DEPT	MACHINERY & EQUIPMENT	1999	15	0	15	0	15	2,916	2,916	-	4,004	0	5	2	10	M
Public Works	G-2030-0525-0001	MISC TOOLS, EQUIP (WELDER, SOCKETS, LIFTS)(INS S	WORKS DEPT	MACHINERY & EQUIPMENT	2001	15	2	15	2	13	34,134	25,249	8,885	44,120	1	4	3	12	M
Public Works	G-2030-0600-0501	AUGER SEWER/DRAINS	WORKS DEPT	MACHINERY & EQUIPMENT	2002	15	3	15	3	12	5,001	4,001	1,000	6,332	1	4	3	12	M
Public Works	G-2030-0600-0503	LASER	WORKS DEPT	MACHINERY & EQUIPMENT	2003	10	0	10	0	11	5,533	5,033	500	6,799	0	5	1	5	L
Public Works	G-2030-0635-0500	BUSH HOG 3710 MOWER	WORKS DEPT	MACHINERY & EQUIPMENT	2003	10	0	12	1	11	13,875	12,875	1,000	17,050	0	5	1	5	L
Public Works		BUSH HOG	WORKS DEPT		2014	10	10	12	12	0				13,000	5	1	3	3	L
Public Works	G-2030-0637-0301	SWEEPER BROOM	WORKS DEPT	MACHINERY & EQUIPMENT	2003	20	9	20	9	11	6,377	2,957	3,420	7,836	2	3	3	9	M
Public Works	G-2030-0600-0300	FARM KING 10' BLADE, 150 HP RATING	WORKS DEPT	MACHINERY & EQUIPMENT	2005	15	6	15	6	9	3,148	1,289	1,859	3,738	2	3	3	9	M
Public Works	G-2030-0635-0302	CAR HAULER	WORKS DEPT	MACHINERY & EQUIPMENT	2007	10	3	10	3	7	4,968	3,128	1,840	5,695	2	3	3	9	M
Public Works	G-2030-0660-0001	POWER WASHER	WORKS DEPT	MACHINERY & EQUIPMENT	2007	5	0	5	0	7	4,180	3,680	500	4,791	0	5	3	15	H
Public Works	G-2030-0631-0201	CASE BACKHOE	WORKS DEPT	MACHINERY & EQUIPMENT	2008	5	0	6	0	6	101,537	61,537	40,000	114,432	0	5	4	20	E
Public Works		C/O DETECTION SHOP	WORKS DEPT	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	6,915	2,766	4,149	7,255	3	2	3	6	L
Public Works		UNDER GROUND LOCATOR	WORKS DEPT	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	3,969	1,587	2,381	4,164	3	2	3	6	L
Public Works		6430 JD TRACTOR LOADER	WORKS DEPT	MACHINERY & EQUIPMENT	2012	10	8	15	13	2	70,055	1,211	68,844	73,501	4	1	3	3	L
Public Works	G-2022-0560-0001	OFFICE CONTENTS	BROOKE LINE	FIXTURES	2001	20	7	20	7	13	5,263	3,421	1,842	6,803	2	3	3	9	M
Public Works	G-2031-0500-1000	COMMUNICATION RECEIVE & TRANSMIT (INS SCH)	WORKS DEPT	IT, COMMUNICATIONS, SECURITY	1980	15	0	30	0	34	5,919	5,919	-	17,749	0	5	3	15	H
Public Works	G-2031-0500-1100	SECURITY SYSTEM	WORKS DEPT	IT, COMMUNICATIONS, SECURITY	2005	10	1	10	1	9	3,335	3,002	334	3,959	2	3	3	9	M
Parks and Rec		ROOF LADDER	BAI COMMUNITY CENTER	BUILDINGS	2011	75	72	75	72	3	4,070	163	3,907	4,231	5	1	2	2	L
Parks and Rec		NETTING	BAI COMMUNITY CENTER	BUILDINGS	2011	5	2	15	12	3	4,533	2,720	1,813	4,712	4	1	2	2	L
Parks and Rec	G-2030-0411-0001	LISTER GENERATOR/TRAILER	Arena	MACHINERY & EQUIPMENT	2000	15	1	15	1	14	21,987	20,521	1,466	29,302	0	5	2	10	M
Parks and Rec	G-2022-1635-0001	SPECTATOR BLEACHERS	COMMUNITY CENTER GROUNDS	FIXTURES	1995	20	1	20	1	19	22,932	21,785	1,147	33,584	0	5	2	10	M
Parks and Rec	G-2030-1635-0001	ICE MAKING EQUIPMENT	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2005	10	1	10	1	9	54,338	48,904	5,434	64,511	1	4	2	8	M
Parks and Rec	G-2030-1635-0002	NEW BRINE CHILLER WITH MOTOR	BAICC - ARENA	MACHINERY & EQUIPMENT	2008	10	4	10	4	6	54,014	32,408	21,606	60,874	2	3	2	6	L
Parks and Rec		OLYMPIA ICE RESURFACER	ARENA	MACHINERY & EQUIPMENT	1996	20	2	20	2	18	47,705	42,935	4,771	-					
Parks and Rec		OLYMPIA ICE RESURFACER	ARENA	MACHINERY & EQUIPMENT	2014	20	20	20	20	0				79,000	5	1	2	2	L
Parks and Rec		HOT WATER HEATER	ARENA	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	5,248	2,624	2,624	5,867	3	2	2	4	L
Parks and Rec		MACHINERY & EQUIP	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2010	20	16	20	16	4	16,730	3,346	13,384	18,110	4	1	2	2	L
Parks and Rec		GENERATOR	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2011	10	7	13	10	3	9,932	2,980	6,952	10,521	3	2	3	6	L
Parks and Rec		HOT WATER HEATER	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2011	5	2	5	2	3	5,471	3,283	2,188	5,796	2	3	2	6	L
Parks and Rec		FLOOR SCRUBBER	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	6,798	2,719	4,079	7,132	3	2	2	4	L
Parks and Rec		EDGER	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	3,885	1,554	2,331	4,076	3	2	2	4	L
Parks and Rec		LAWN MOWER KUBOTA ZD331	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2012	5	3	5	3	2	16,832	5,933	10,899	17,660	3	2	2	4	L
Parks and Rec		CO DETECTION BLDING IMP	BAI COMMUNITY CENTER	MACHINERY & EQUIPMENT	2012	10	8	10	8	2	15,645	3,129	12,516	16,415	4	1	2	2	L
Parks and Rec	G-2022-1635-0001	TABLES & CHAIRS	BAI COMMUNITY CENTER	FIXTURES	2006	10	2	10	2	8	1,040	832	208	1,215	1	4	2	8	M
Parks and Rec		CHRISTMAS DECORATIONS	ARENA	FIXTURES	2009	5	0	5	0	5	4,172	4,172	-	4,664	0	5	2	10	M
Parks and Rec		TABLES	BAI COMMUNITY CENTER	FIXTURES	2010	10	6	10	6	4	1,094	438	657	1,185	3	2	2	4	L
Parks and Rec		FURNITURE CHAIRS	BAI COMMUNITY CENTER	FIXTURES	2012	10	8	10	8	2	4,500	900	3,600	4,721	4	1	2	2	L
Parks and Rec		FURNITURE TABLES	BAI COMMUNITY CENTER	FIXTURES	2013	10	9	10	9	1	2,069	207	1,862	2,136	5	1	2	2	L
Parks and Rec	G-2031-1635-0100	PROJECTOR, SCREEN, INSTALL	BIA CC MAIN HALL	IT, COMMUNICATIONS, SECURITY	2008	5	0	5	0	6	2,456	2,456	-	2,768	0	5	2	10	M
Parks and Rec		INTERNET WIRING	ARENA OFFICE	IT, COMMUNICATIONS, SECURITY	2009	5	0	5	0	5	1,247	1,247	-	1,394	0	5	2	10	M
Parks and Rec		COMPUTER	BAI COMMUNITY CENTER	IT, COMMUNICATIONS, SECURITY	2010	5	1	5	1	4	1,517	1,214	303	1,642	1	4	2	8	M
Parks and Rec		FIRE ALARM SYSTEM	BAI COMMUNITY CENTER	IT, COMMUNICATIONS, SECURITY	2011	20	17	20	17	3	24,146	3,622	20,524	25,578	4	1	2	2	L
Parks and Rec		SECURITY SYSTEM	BAI COMMUNITY CENTER	IT, COMMUNICATIONS, SECURITY	2011	10	7	10	7	3	9,632	2,889	6,742	10,203	4	1	2	2	L
Parks and Rec		SECURITY CAMERA	BAI COMMUNITY CENTER	IT, COMMUNICATIONS, SECURITY	2013	10	9	10	9	1	2,700	270	2,430	2,787	5	1	2	2	L
Parks and Rec		SNACK BAR IMPROVEMENTS	INWOOD	MACHINERY & EQUIPMENT	2010	10	6	10	6	4	1,218	487	731	1,319	3	2	2	4	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Machinery & Equipment, Fixtures, IT Communications, Security

Asset Description					Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age) 0 to 5	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Financial Statements Category	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
Comm. Improv.		CHRISTMAS LIGHTING , DECORATIONS & BANNERS	ALVINSTON	MACHINERY & EQUIPMENT	2009	10	5	10	5	5	31,024	15,512	15,512	34,683	3	2	2	4	L
Comm. Improv.		CHRISTMAS LIGHTS	INWOOD	MACHINERY & EQUIPMENT	2012	10	8	10	8	2	8,200	1,640	6,560	8,603	4	1	2	2	L
Comm. Improv.	G-2021-1820-0001	HEXAGON PLANTERS (5)	RIVER STREET	FIXTURES	2006	20	12	20	12	8	1,250	500	750	1,460	3	2	2	4	L
Comm. Improv.	G-2021-1820-0002	ENTRANCE SIGNS (from analysis of disbursements)	NAUVOO RD & INWOOD RD	FIXTURES	2004	15	5	15	5	10	6,588	4,392	2,196	7,968	2	3	2	6	L
Comm. Improv.		GARBAGE CONTAINER	ALVINSTON	FIXTURES	2012	5	3	5	3	2	1,734	693	1,040	1,819	3	2	2	4	L
Public Works		STREET LIGHTS	ALVINSTON and INWOOD	MACHINERY & EQUIPMENT	2014	20	20	20	20	0				96,000	5	1	2	2	L
Public Works	I-2230-0751-0001	STREET LIGHTS ALVINSTON	169 LIGHTS	MACHINERY & EQUIPMENT	1980	50	16	50	16	34	57,839	39,331	18,508	-					
Public Works		STREET LIGHTS INWOOD	17 LIGHTS	MACHINERY & EQUIPMENT	1980	50	16	50	16	34	5,818	3,956	1,862	-					

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Vehicles

Asset Description				Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age) 0 to 5	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
															5	5	25	
										$ 1,532,089	$ 765,915	$ 766,175	$ 2,189,003					
Fire Services	G-2040-0411-0003	GMC TANKER	ALVINSTON FIRE HALL	1987	20	0	28	1	27	17,980	17,980	-	200,000	0	5	3	15	H
Fire Services	G-2040-0411-0002	FREIGHTLINER FIRE PUMPER	ALVINSTON FIRE HALL	1998	20	4	22	6	16	149,705	119,764	29,941	300,000	1	4	3	12	M
Fire Services	G-2040-0411-0001	RESCUE VAN	ALVINSTON FIRE HALL	2003	20	9	20	9	11	143,057	78,682	64,376	225,000	2	3	3	9	M
Fire Services		2011 FREIGHTLINER	ALVINSTON FIRE HALL	2011	20	17	30	27	3	191,187	28,678	162,509	240,000	5	1	3	3	L
Fire Services		BACK-UP CAMERAS	ALVINSTON FIRE HALL	2013	5	4	5	4	1	519	104	415	535	4	1	3	3	L
Fire Services	G-2040-0413-0001	ASPHODEL TAKER 1400 GALLON (TANK ONLY)	WATFORD FIRE HALL	2006	20	12	20	12	8	50,017	16,007	34,010	58,436	3	2	3	6	L
Fire Services	G-2040-0413-0001	ASPHODEL TAKER 1400 GALLON LIGHTING	WATFORD FIRE HALL	2006	20	12	20	12	8	3,676	1,470	2,206	4,295	3	2	3	6	L
Fire Services		2012 INTERNATIONAL 4300M7 SBA 4X2	WATFORD FIRE HALL	2011	25	22	25	22	3	76,200	8,544	67,656	80,721	4	1	3	3	L
Fire Services	G-2040-0412-0002	1989 FORD CUBE VAN	INWOOD FIRE HALL	1990	20	0	20	0	24	9,529	9,529	-	15,285	0	5	3	15	H
Fire Services	G-2040-0412-0002	2000 GMC PUMPER	INWOOD FIRE HALL	2000	20	6	20	6	14	111,484	78,039	33,445	148,575	2	3	3	9	M
Fire Services	G-2040-0412-0001	2003 1400 GALLON GMC TANKER TRUCK	INWOOD FIRE HALL	2006	20	12	20	12	8	141,525	53,591	87,934	165,348	3	2	3	6	L
Public Works	G-2040-0601-0101	STERLING TANDEM DUMP 2007	WORKS DEPT	2006	15	7	15	7	8	195,127	96,067	99,059	227,972	2	3	3	9	M
Public Works	G-2040-0620-0200	2008 FORD F250 4X4 XL SUPERCAB	WORKS DEPT	2008	6	0	10	4	6	36,488	31,488	5,000	41,122	2	3	3	9	M
Public Works	G-2040-0621-2020	FORD F150 PICKUP	WORKS DEPT	2009	6	1	10	5	5	18,144	13,453	4,691	20,284	3	2	3	6	L
Public Works		STERLING TANDEM DUMP 2000	WORKS DEPT	1999	15	0	15	0	15	162,471	162,471	-	223,100	0	5	3	15	H
Public Works		2012 INTERNATIONAL 7600	WORKS DEPT	2011	15	12	15	12	3	208,143	41,629	166,514	220,492	4	1	3	3	L
Public Works		2011 CHEV SILVERADO 1500	WORKS DEPT/ARENA	2011	6	3	10	7	3	8,420	4,210	4,210	8,920	4	1	3	3	L
Parks and Rec		PICK UP TRUCK	BAI COMMUNITY CENTER	2011	6	3	10	7	3	8,419	4,210	4,210	8,919	4	1	2	2	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Sidewalks

Asset Description				Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age) 0 to 5	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
															5	5	25	
										$ 221,355	$ 20,488	$ 200,867	$ 246,653					
Public Works	2011	SIDEWALKS	ALVINSTON	2003	50	39	50	39	11	3,232	711	2,521	4,800	4	1	2	2	L
Public Works	2038		ALVINSTON	2003	50	39	50	39	11	2,222	489	1,733	3,300	4	1	2	2	L
Public Works	2013		ALVINSTON	2003	50	39	50	39	11	3,030	667	2,363	4,500	4	1	2	2	L
Public Works	W TO H		INWOOD	2003	50	39	50	39	11	1,212	267	945	1,800	4	1	2	2	L
Public Works	2010		ALVINSTON	2004	50	40	50	40	10	4,039	808	3,231	5,629	4	1	2	2	L
Public Works	2028		ALVINSTON	2004	50	40	50	40	10	1,307	261	1,046	1,821	4	1	2	2	L
Public Works	2005		ALVINSTON	2004	50	40	50	40	10	2,138	428	1,710	2,979	4	1	2	2	L
Public Works	3007		INWOOD	2004	50	40	50	40	10	2,851	570	2,281	3,973	4	1	2	2	L
Public Works	2029		ALVINSTON	2005	50	41	50	41	9	2,821	508	2,313	3,734	4	1	2	2	L
Public Works	2027		ALVINSTON	2005	50	41	50	41	9	3,224	580	2,644	4,267	4	1	2	2	L
Public Works	3007		INWOOD	2005	50	41	50	41	9	4,836	870	3,966	6,401	4	1	2	2	L
Public Works	2027		ALVINSTON	2006	50	42	50	42	8	1,976	316	1,660	2,451	4	1	2	2	L
Public Works	2002		ALVINSTON	2006	50	42	50	42	8	1,235	198	1,037	1,532	4	1	2	2	L
Public Works	2037		ALVINSTON	2006	50	42	50	42	8	5,435	870	4,565	6,742	4	1	2	2	L
Public Works	3007		INWOOD	2006	50	42	50	42	8	2,965	474	2,491	3,678	4	1	2	2	L
Public Works	2029		ALVINSTON	2007	50	43	50	43	7	1,951	273	1,678	2,267	4	1	2	2	L
Public Works	NAUVOO		ALVINSTON	2007	50	43	50	43	7	4,182	585	3,597	4,860	4	1	2	2	L
Public Works	2001		ALVINSTON	2007	50	43	50	43	7	3,345	468	2,877	3,887	4	1	2	2	L
Public Works	2036.1		ALVINSTON	2007	50	43	50	43	7	2,788	390	2,398	3,240	4	1	2	2	L
Public Works	2011		ALVINSTON	2007	50	43	50	43	7	2,230	312	1,918	2,591	4	1	2	2	L
Public Works	2005		ALVINSTON	2007	50	43	50	43	7	2,509	351	2,158	2,916	4	1	2	2	L
Public Works	2006		ALVINSTON	2007	50	43	50	43	7	2,230	312	1,918	2,591	4	1	2	2	L
Public Works	2014		ALVINSTON	2007	50	43	50	43	7	2,091	293	1,798	2,430	4	1	2	2	L
Public Works	2000		ALVINSTON	2008	50	44	50	44	6	2,433	292	2,141	2,580	4	1	2	2	L
Public Works	2038		ALVINSTON	2008	50	44	50	44	6	4,316	518	3,798	4,577	4	1	2	2	L
Public Works	2039		ALVINSTON	2008	50	44	50	44	6	5,493	659	4,834	5,826	4	1	2	2	L
Public Works	2040		ALVINSTON	2008	50	44	50	44	6	3,924	471	3,453	4,162	4	1	2	2	L
Public Works	2041		ALVINSTON	2009	50	45	50	45	5	5,749	575	5,174	6,216	5	1	2	2	L
Public Works	2048		ALVINSTON	2010	50	46	50	46	4	5,484	439	5,045	5,934	5	1	2	2	L
Public Works	2047		ALVINSTON	2010	50	46	50	46	4	5,484	439	5,045	5,934	5	1	2	2	L
Public Works	2046		ALVINSTON	2010	50	46	50	46	4	3,490	279	3,211	3,776	5	1	2	2	L
Public Works	2003		ALVINSTON	2010	50	46	50	46	4	2,119	170	1,949	2,293	5	1	2	2	L
Public Works	3007		INWOOD	2010	50	46	50	46	4	5,982	479	5,503	6,472	5	1	2	2	L
Public Works	INW RD	SIDEWALK MCNALLY TO MOORE	INWOOD	2010	50	46	50	46	4	12,961	1,037	11,924	14,024	5	1	2	2	L
Public Works	2033		ALVINSTON	2011	50	47	50	47	3	9,727	584	9,143	10,111	5	1	2	2	L
Public Works	2034		ALVINSTON	2011	50	47	50	47	3	2,748	165	2,583	2,856	5	1	2	2	L
Public Works	2004 PART	RIVER FRONT OF MUN OFFICE	ALVINSTON	2011	50	47	50	47	3	10,130	608	9,522	10,530	5	1	2	2	L
Public Works	GAZABO	SIDEWALK TO BLDING	ALVINSTON	2011	50	47	50	47	3	902	54	848	938	5	1	2	2	L
Public Works	INW RD		INWOOD	2011	50	47	50	47	3	12,320	739	11,581	12,806	5	1	2	2	L
Public Works	INW RD	MCNALLY TO SOUTH END	INWOOD	2012	50	48	50	48	2	15,203	608	14,595	15,464	5	1	2	2	L
Public Works	2014	59 M ON ELGIN	ALVINSTON	2012	50	48	50	48	2	5,597	224	5,373	5,693	5	1	2	2	L
Public Works	2016	HOUSE 3245 NORTH TO WALLACE	ALVINSTON	2012	50	48	50	48	2	13,933	557	13,376	14,173	5	1	2	2	L
Public Works		WALNUT ST	ALVINSTON	2013	50	49	50	49	1	7,988	160	7,828	8,093	5	1	2	2	L
Public Works		HENRY ST	ALVINSTON	2013	50	49	50	49	1	18,274	365	17,909	18,514	5	1	2	2	L
Public Works		JAMES ST	INWOOD	2013	50	49	50	49	1	3,249	65	3,184	3,292	5	1	2	2	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Stormwater Mains

Asset Description								Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Probability of Failure			Consequence of Failure (Based on Pipe Size)	Numerical Risk of Failure	Risk of Failure	Inflated Contributions Based on Useful Life
Department	Road Reference ID	Street	From	To	Diameter (mm)	Length (m)	Pipe Material	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated		Condition (0 to 5)	Material Rating	Total Probability of Failure				
														$ 1,637,942	$ 535,612	$ 1,102,330	$ 6,986,192		5	5	10	10	100		$ 131,991
ST Inwood	3010	Atkinson Street	Inwood Rd	Park St	150	128.00	PE	1995	75	56	75	56	19	41,720	10,013	31,707	79,844	4	1	1	2	4	8	L	1,509
ST Alvinston	2057	Broadway Street	Dead End	Lisgar St	200	190.00	PE	1978	75	39	75	39	36	27,405	12,789	14,616	126,137	3	2	1	3	6	18	L	2,383
ST Alvinston	2058	Broadway Street	Lisgar	Francis	200	111.99	PE	1978	75	39	75	39	36	16,153	7,538	8,615	74,347	3	2	1	3	6	18	L	1,405
ST Alvinston	2059	Broadway Street	Francis	Mill Pond	200	111.00	PE	1978	75	39	75	39	36	16,010	7,471	8,539	73,689	3	2	1	3	6	18	L	1,392
ST Alvinston	3013	Broadway Street	Broadway Street	Hwy 79	200	579.10	PE	1978	75	39	75	39	36	83,526	38,979	44,547	384,445	3	2	1	3	6	18	L	7,263
ST Alvinston	2040	Centre Street	Henry	Lovell St	150	103.01	Clay	1916	75	0	75	0	98	2,569	2,569	-	107,911	0	5	5	10	4	40	M	2,039
ST Alvinston	2041	Centre Street	Lovell St	Hwy 79	150	159.99	Clay	1916	75	0	75	0	98	3,990	3,990	-	167,601	0	5	5	10	4	40	M	3,166
ST Alvinston	2042	Centre Street	Hwy 79	Elm St	150	117.00	Clay	1916	75	0	75	0	98	2,918	2,918	-	122,571	0	5	5	10	4	40	M	2,316
ST Alvinston	2043	Centre Street	Elm St	Dead End	150	264.50	Clay	1916	75	0	75	0	98	6,597	6,597	-	277,108	0	5	5	10	4	40	M	5,235
ST Alvinston	2039	Centre Street	Walnut	Henry St	150	71.60	Clay	1916	75	0	75	0	98	1,786	1,786	-	75,021	0	5	5	10	4	40	M	1,417
ST Alvinston	2039	Centre Street	Walnut	Henry St	250	18.80	PVC	1988	75	49	75	49	26	5,452	1,817	3,635	11,552	3	2	1	3	6	18	L	218
ST Alvinston	2039	Centre Street	Walnut	Henry St	330	42.20	PVC	1988	75	49	75	49	26	13,539	4,513	9,026	28,687	3	2	1	3	8	24	L	542
ST Alvinston	2040	Centre Street	Henry	Lovell St	330	103.01	PVC	1988	75	49	75	49	26	33,050	11,017	22,033	70,028	3	2	1	3	8	24	L	1,323
ST Alvinston	2041	Centre Street	Lovell St	Hwy 79	330	159.99	PVC	1988	75	49	75	49	26	51,332	17,111	34,221	108,766	3	2	1	3	8	24	L	2,055
ST Alvinston	2033	Church Street	Railroad Line	Centre St	150	139.29	Clay	1929	75	0	75	0	85	4,792	4,792	-	137,135	0	5	5	10	4	40	M	2,591
ST Alvinston	3015	Church Street	Water Treatment Plant	Railroad Line	300	48.80	PE	1988	75	49	75	49	26	15,205	5,068	10,137	32,217	3	2	1	3	8	24	L	609
ST Alvinston	3029	Elgin Street	Open Ditch	Railroad Line	250	97.50	Clay	1926	75	0	75	0	88	3,620	3,620	-	110,208	0	5	5	10	6	60	H	2,082
ST Alvinston	2014	Elgin Street	Railroad Line	Centre St	250	137.00	Clay	1926	75	0	75	0	88	5,087	5,087	-	154,869	0	5	5	10	6	60	H	2,926
ST Alvinston	2015	Elgin Street	Centre St	Lorne St	200	164.30	Clay	1926	75	0	75	0	88	5,906	5,906	-	179,803	0	5	5	10	6	60	H	3,397
ST Alvinston	2015	Elgin Street	Centre St	Lorne St	250	2.70	Clay	1926	75	0	75	0	88	100	100	-	3,044	0	5	5	10	6	60	H	58
ST Alvinston	2016	Elgin Street	Lorne	Wallace St	200	153.03	Clay	1926	75	0	75	0	88	5,501	5,501	-	167,473	0	5	5	10	6	60	H	3,164
ST Alvinston	2016	Elgin Street	Lorne	Wallace St	200	100.60	PE	1966	75	27	75	27	48	6,912	4,332	2,580	69,259	2	3	1	4	6	24	L	1,309
ST Alvinston	2014	Elgin Street	Railroad Line	Centre St	450	141.00	PE	1995	75	56	75	56	19	63,058	15,134	47,924	120,681	4	1	1	2	10	20	L	2,280
ST Alvinston	2015	Elgin Street	Centre St	Lorne St	450	165.00	PE	1995	75	56	75	56	19	73,791	17,710	56,081	141,222	4	1	1	2	10	20	L	2,668
ST Alvinston	2017	Elgin Street	Wallace St	Dead End	150	195.00	PE	2001	75	62	75	62	13	71,021	11,363	59,658	111,332	4	1	1	2	4	8	L	2,103
ST Alvinston	2024	Elm Street	Centre St	Railroad Line	200	129.50	PE	1975	75	36	75	36	39	14,790	7,494	7,296	70,625	2	3	1	4	6	24	L	1,334
ST Alvinston	2054	Francis Street	River St	Broadway St	250	91.44	AC	1974	75	35	75	35	40	9,713	5,051	4,662	49,266	2	3	3	6	6	36	M	931
ST Alvinston	2019	Henry Street	Lorne	Centre St	250	161.99	PVC	1989	75	50	75	50	25	49,260	15,763	33,497	97,970	3	2	1	3	6	18	L	1,851
ST Alvinston	2020	Henry Street	Centre St	Railroad Line	250	150.00	PVC	1989	75	50	75	50	25	45,613	14,596	31,017	90,717	3	2	1	3	6	18	L	1,714
ST Inwood	3000	Holmes Street	Inwood Rd	Weidman	150	107.08	Clay	1961	75	22	75	22	53	6,262	4,342	1,920	75,933	1	4	5	9	4	36	M	1,435
ST Inwood		Inwood Road (Covered Portion) Pt Of 3-4 Municipal Drain	PARK	JAMES	200		PVC	2010	75	71	75	71	4	238,229	12,706	225,524	257,760	5	0	1	1	6	6	L	4,870
ST Inwood	3007	James Street	Park St	Dead End	200	209.00	Conc	1961	75	22	75	22	53	12,933	8,967	3,966	156,826	1	4	1	5	6	30	M	2,963
ST Inwood	3007	James Street	Park St	Dead End	250	206.00	Conc	1961	75	22	75	22	53	13,168	9,130	4,038	159,676	1	4	1	5	6	30	M	3,017
ST Alvinston	2044	Lorne Street	Hwy 79	Lovell St	150	167.60	Clay	1922	75	0	75	0	92	5,693	5,693	-	173,318	0	5	5	10	4	40	M	3,275
ST Alvinston	2045	Lorne Street	Lovell St	Henry	150	103.00	Clay	1922	75	0	75	0	92	3,499	3,499	-	106,524	0	5	5	10	4	40	M	2,013
ST Alvinston	2046	Lorne Street	Henry	Walnut	150	137.20	Clay	1922	75	0	75	0	92	4,661	4,661	-	141,900	0	5	5	10	4	40	M	2,681
ST Alvinston	3012	Lorne Street	West Town Limits	Hwy 79	200	260.00	Clay	1994	75	55	75	55	20	87,779	22,237	65,542	173,220	4	1	5	6	6	36	M	3,273
ST Alvinston	2021	Lovell Street	Railroad Line	Centre St	375	148.03	PVC	1989	75	50	75	50	25	50,760	16,243	34,517	100,953	3	2	1	3	10	30	M	1,907
ST Alvinston	2022	Lovell Street	Centre St	Lorne St	375	162.99	PVC	1989	75	50	75	50	25	55,891	17,885	38,006	111,158	3	2	1	3	10	30	M	2,100
ST Alvinston	2050	Mill Street	Hwy 79	Patterson	250	189.00	Clay	1929	75	0	75	0	85	7,106	7,106	-	203,356	0	5	5	10	6	60	H	3,842
ST Alvinston	3014	Mill Street	West Town Limits	Hwy 79	250	177.00	Clay	1929	75	0	75	0	85	6,655	6,655	-	190,449	0	5	5	10	6	60	H	3,598
ST Alvinston	2018	Morrell Street	Hwy 79	Lorne St	250	40.20	Clay	1916	75	0	75	0	98	1,096	1,096	-	46,038	0	5	5	10	6	60	H	870
ST Alvinston	2018	Morrell Street	Hwy 79	Lorne St	200	181.00	Clay	1916	75	0	75	0	98	4,777	4,777	-	200,659	0	5	5	10	6	60	H	3,791
ST Alvinston	2018	Morrell Street	Hwy 79	Lorne St	150	56.00	PE	1916	75	0	75	0	98	1,397	1,397	-	58,681	0	5	1	6	4	24	L	1,109
ST Alvinston	2018	Morrell Street	Hwy 79	Lorne St	150	181.00	Clay	1916	75	0	75	0	98	4,514	4,514	-	189,611	0	5	5	10	4	40	M	3,582
ST Alvinston	3030	Open Ditch	Elgin St	River St	250	65.50	Clay	1926	75	0	75	0	88	2,432	2,432	-	74,040	0	5	5	10	6	60	H	1,399
ST Inwood	3009	Park Street	Atkinson	Inwood Rd	150	300.00	PE	2003	75	64	75	64	11	114,810	15,308	99,502	170,527	4	1	1	2	4	8	L	3,222
ST Alvinston	2049	Patterson Street	Railroad Line	Mill Pond	375	123.00	PVC	1989	75	50	75	50	25	42,178	13,497	28,681	83,885	3	2	1	3	10	30	M	1,585
ST Inwood	3003	Queen Street	Moore St	McNally St	200	150.00	Clay	1976	75	37	75	37	38	18,428	9,091	9,337	90,541	2	3	5	8	6	48	M	1,711
ST Inwood	3004	Queen Street	McNally St	Dead End	200	177.00	Clay	1976	75	37	75	37	38	21,744	10,727	11,017	106,834	2	3	5	8	6	48	M	2,018
ST Alvinston	2025	Railroad Line	West Town Limits	Elm St	250	170.70	PE	1987	75	48	75	48	27	47,576	16,493	31,083	108,696	3	2	1	3	6	18	L	2,054
ST Alvinston	2026	Railroad Line	Elm St	Hwy 79	250	175.60	PE	1987	75	48	75	48	27	48,941	16,966	31,975	111,815	3	2	1	3	6	18	L	2,113
ST Alvinston	2028	Railroad Line	Lovell St	Henry	300	54.00	PVC	1989	75	50	75	50	25	17,644	5,646	11,998	35,091	3	2	1	3	8	24	L	663
ST Alvinston	2028	Railroad Line	Lovell St	Henry	375	53.00	PVC	1989	75	50	75	50	25	18,174	5,816	12,358	36,145	3	2	1	3	10	30	M	683
ST Alvinston	2002	River Street	Francis	Mill Pond	300	134.00	AC	1974	75	35	75	35	40	15,293	7,952	7,341	77,568	2	3	3	6	8	48	M	1,465
ST Alvinston	3026	Underground	Walnut	Elgin St	150	114.00	Unknown	1975	75	36	75	36	39	12,304	6,234	6,070	58,754	2	3	5	8	4	32	M	1,110
ST Alvinston	3027	Underground	Elgin St	River St	150	111.00	Unknown	1975	75	36	75	36	39	11,980	6,070	5,910	57,206	2	3	5	8	4	32	M	1,081
ST Inwood	3028	Underground (Tait Drain)	Park St.	Dead End	200	275.00	AC	1979	75	40	75	40	35	43,293	19,626	23,667	182,762	3	2	3	5	6	30	M	3,453
ST Inwood	3028	Underground (Tait Drain)	Park St.	Dead End	450	180.00	Conc	1979	75	40	75	40	35	36,745	16,658	20,087	155,120	3	2	1	3	10	30	M	2,931
ST Alvinston	2009	Wallace Street	Elgin St	Walnut	200	5.70	Clay	1926	75	0	75	0	88	205	205	-	6,241	0	5	5	10	6	60	H	118
ST Alvinston	2009	Wallace Street	Elgin St	Walnut	150	40.00	Clay	1926	75	0	75	0	88	1,359	1,359	-	41,374	0	5	5	10	4	40	M	782

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Roads

Asset Description											Asset Age and Useful Life						Financial Information				Condition Rating			Probability of Failure	Consequence of Failure			Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Road Name	From	To	Component	Section Length (km)	Roadside Enviroment	Surface Type	Traffic Range	Paved / Unpaved	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated	Road Surface Asset Condition (from 2009 Study)	Road Surface Estimated Condition 2014	Road Base and Earthwork Condition (Age Based)		Roadside Environment	Traffic Rating	Total Consequence of Failure		
																	$ 3,699,654	$ 2,858,297	$ 841,357	$ 7,075,263	Surface			10	5	5	10	100	
																	$ 5,254,385	$ 2,619,893	$ 2,634,492	$ 76,445,539	Base								
Public Works	1000	Aberfeldy Line	Hwy 79	Ebenezer Rd	Road Base and Earthwork	2.58	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	19,350	19,350	-	732,378			0	10	1	2	3	30	M
Public Works	1001	Aberfeldy Line	Ebenezer	Little Ireland	Road Base and Earthwork	0.92	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	6,900	6,900	-	261,158			0	10	1	2	3	30	M
Public Works	1002	Aberfeldy Line	Little Ireland	Dobryn Rd	Road Base and Earthwork	0.82	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	6,130	6,130	-	232,771			0	10	1	2	3	30	M
Public Works	1002.1	Aberfeldy Line			Road Base and Earthwork	1.02	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	7,660	7,660	-	289,545			0	10	1	2	3	30	M
Public Works	1002.2	Aberfeldy Line			Road Base and Earthwork	1.80	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	13,510	13,510	-	510,962			0	10	1	2	3	30	M
Public Works	1002.3	Aberfeldy Line			Road Base and Earthwork	1.88	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	14,110	14,110	-	533,671			0	10	1	2	3	30	M
Public Works	1003	Forest Road	Aberteldy Rd	Oil Springs Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	25,580	25,580	-	772,120			0	10	1	2	3	30	M
Public Works	1004	Forest Road	Oil Springs Line	Courtright Line	Road Base and Earthwork	2.69	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	25,320	25,320	-	763,604			0	10	1	2	3	30	M
Public Works	1005	Forest Road	Courtwright Line	Weidman	Road Base and Earthwork	1.39	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,450	10,450	-	394,576			0	10	1	2	3	30	M
Public Works	1006	Forest Road	Weidman	Shiloh Line	Road Base and Earthwork	1.32	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,900	9,900	-	374,705			0	10	1	2	3	30	M
Public Works	1006.1	Forest Road			Road Base and Earthwork	2.73	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,500	20,500	-	774,958			0	10	1	2	3	30	M
Public Works	1006.2	Forest Road			Road Base and Earthwork	2.73	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,500	20,500	-	774,958			0	10	1	2	3	30	M
Public Works	1007	Weidman Line	Forest Rd	0.1 km west of Inwood Rd.	Road Base and Earthwork	1.64	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	11,250	11,250	-	465,543			0	10	1	2	3	30	M
Public Works	1008	Weidman Line	0.1 km west of Inwood Rd	Inwood Rd	Road Base and Earthwork	0.20	Urban	LCB	50-199	Paved	1900	100	0	100	0	114	3,630	3,630	-	56,774			0	10	5	2	7	70	H
Public Works	1008	Weidman Line	0.1 km west of Inwood Rd	Inwood Rd	Road Surface	0.20	Urban	LCB	50-199	Paved	2009	8	3	8	3	5	4,355	2,722	1,633	4,709	7	1		9	5	2	7	63	H
Public Works	1009	Oil Springs Line	Forest Rd	Inwood Rd	Road Base and Earthwork	1.84	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	15,460	15,460	-	522,316			0	10	1	2	3	30	M
Public Works	1009	Oil Springs Line	Forest Rd	Inwood Rd	Road Surface	1.84	Rural	LCB	50-199	Paved	2005	8	0	8	0	9	88,460	88,460	-	117,088	8	7		3	1	2	3	9	L
Public Works	1010	Oil Springs Line	Inwood Rd	Sutorville	Road Base and Earthwork	1.84	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	15,650	15,650	-	522,316			0	10	1	2	3	30	M
Public Works	1011	Oil Springs Line	Sutorville	Little Ireland	Road Base and Earthwork	1.69	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	14,370	14,370	-	479,736			0	10	1	2	3	30	M
Public Works	1012	Oil Springs Line	Little Ireland	Ebenezer Rd	Road Base and Earthwork	0.16	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	1,260	1,260	-	45,419			0	10	1	2	3	30	M
Public Works	1013	Oil Springs Line	Ebenezer Rd	Old Walnut	Road Base and Earthwork	1.84	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	14,860	14,860	-	522,316			0	10	1	2	3	30	M
Public Works	1014	Oil Springs Line	Old Walnut	Hwy 79	Road Base and Earthwork	1.85	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	15,990	15,990	-	525,155			0	10	1	2	3	30	M
Public Works	1015	Oil Springs Line	Hwy 79	Comeron Rd	Road Base and Earthwork	1.85	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	14,780	14,780	-	525,155			0	10	1	2	3	30	M
Public Works	1016	Oil Springs Line	Cameron	East of Cameron	Road Base and Earthwork	0.45	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	3,660	3,660	-	127,740			0	10	1	2	3	30	M
Public Works	1017	Walker Line	Watterworth Rd	Cameron	Road Base and Earthwork	0.92	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	5,820	5,820	-	261,158			0	10	1	2	3	30	M
Public Works	1018	Cameron Road	Walker Line	Sydenham	Road Base and Earthwork	1.37	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,940	9,940	-	388,899			0	10	1	2	3	30	M
Public Works	1019	Sydenham Line	Cameron	Hwy 79	Road Base and Earthwork	2.24	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	12,940	12,940	-	635,863			0	10	1	1	2	20	L
Public Works	1020	Cameron Road	Sydenham Rd	Oil Springs Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,550	10,550	-	386,060			0	10	1	2	3	30	M
Public Works	1021	Cameron Road	Oil Springs Line	Courtright Line	Road Base and Earthwork	2.83	Rural	LCB	50-199	Unpaved	1900	100	0	100	0	114	23,360	23,360	-	803,345			0	10	1	2	3	30	M
Public Works	1022	Old Walnut Road	Hwy 79	Fields Line	Road Base and Earthwork	1.46	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,340	10,340	-	414,447			0	10	1	2	3	30	M
Public Works	1023	Old Walnut Road	Fields Rd	Oil Springs Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,650	9,650	-	386,060			0	10	1	2	3	30	M
Public Works	1024	Old Walnut Road	Oil Springs Line	Courtright Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	26,950	26,950	-	772,120			0	10	1	2	3	30	M
Public Works	1025	Old Walnut Road	Courtright Line	Railroad Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	13,470	13,470	-	386,060			0	10	1	2	3	30	M
Public Works	1026	Railroad Line	Old Walnut	Alvinston South Limits	Road Base and Earthwork	1.13	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	8,200	8,200	-	320,770			0	10	1	2	3	30	M
Public Works	1027	Old Walnut Road	Railroad Line	Shiloh Line	Road Base and Earthwork	1.37	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	13,510	13,510	-	388,899			0	10	1	2	3	30	M
Public Works	1028	Old Walnut Road	Shiloh Line	Brooke Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,880	10,880	-	386,060			0	10	1	2	3	30	M
Public Works	1029	Old Walnut Road	Brooke Line	Rokeby Line	Road Base and Earthwork	1.37	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	111,250	111,250	-	388,899			0	10	1	2	3	30	M
Public Works	1030	Brooke Line	Old Walnut	Hwy 79	Road Base and Earthwork	1.84	Rural	Gravel	50-199	Paved	1900	100	0	100	0	114	13,520	13,520	-	522,316			0	10	1	2	3	30	M
Public Works	1030	Brooke Line	Old Walnut	Hwy 79	Road Surface	1.84	Rural	Gravel	50-199	Paved	1999	20	5	20	5	15	93,050	65,135	27,915	164,080	10	9		1	1	2	3	3	L
Public Works	1031	Old Walnut Road	Rokeby Line	Petrolia Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	21,900	21,900	-	769,281			0	10	1	2	3	30	M
Public Works	1032	Old Walnut Road	Petrolia Line	Lasalle Line	Road Base and Earthwork	1.48	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,150	10,150	-	420,124			0	10	1	2	3	30	M
Public Works	1033	Old Walnut Road	Lasalle	Churchill Line	Road Base and Earthwork	3.03	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	22,780	22,780	-	860,119			0	10	1	2	3	30	M
Public Works	1034	Ebenezer Road	Churchill Line	Lasalle Line	Road Base and Earthwork	2.99	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	21,720	21,720	-	848,764			0	10	1	2	3	30	M
Public Works	1035	Ebenezer Road	Lasalle	Petrolia Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	19,690	19,690	-	769,281			0	10	1	2	3	30	M
Public Works	1036	Ebenezer Road	Petrolia Line	Rokeby Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,360	20,360	-	769,281			0	10	1	2	3	30	M
Public Works	1037	Ebenezer Road	Rokeby Line	Shiloh	Road Base and Earthwork	2.73	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,320	17,320	-	774,958			0	10	1	2	3	30	M
Public Works	1039	Ebenezer Road	Courtright Line	Bush Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	7,960	7,960	-	386,060			0	10	1	2	3	30	M
Public Works	1040	Ebenezer Road	Bush Line	Oil Springs Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	8,980	8,980	-	386,060			0	10	1	2	3	30	M
Public Works	1041	Ebenezer Road	Oil Springs Line	Fields Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,000	9,000	-	386,060			0	10	1	2	3	30	M
Public Works	1042	Fields Line	Ebenezer	Old Walnut	Road Base and Earthwork	1.84	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,320	10,320	-	522,316			0	10	1	2	3	30	M
Public Works	1043	Ebenezer Road	Fields Rd	Aberleldy	Road Base and Earthwork	1.94	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	12,180	12,180	-	550,703			0	10	1	2	3	30	M
Public Works	1044	Little Ireland Road	Aberteldy Rd	Campbell Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,970	9,970	-	386,060			0	10	1	2	3	30	M
Public Works	1045	Little Ireland Road	Campbell Line	Oil Springs Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	7,970	7,970	-	386,060			0	10	1	2	3	30	M
Public Works	1046	Little Ireland Road	Oil Springs Line	Bush Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	8,880	8,880	-	386,060			0	10	1	2	3	30	M
Public Works	1047	Bush Line	Little Ireland	Ebenezer Rd	Road Base and Earthwork	1.83	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,210	9,210	-	519,478			0	10	1	2	3	30	M
Public Works	1048	Little Ireland Road	Bush Line	Courtright Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	8,870	8,870	-	386,060			0	10	1	2	3	30	M
Public Works	1049	Little Ireland Road	Courtright Line	Shiloh Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	19,080	19,080	-	772,120			0	10	1	2	3	30	M
Public Works	1050	Little Ireland Road	Shiloh Line	Rokeby Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	16,380	16,380	-	772,120			0	10	1	2	3	30	M
Public Works	1051	Little Ireland Road	Rokeby Line	Petrolia Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	21,300	21,300	-	772,120			0	10	1	2	3	30	M
Public Works	1052	Little Ireland Road	Petrolia Line	Lasalle Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,030	17,030	-	772,120			0	10	1	2	3	30	M
Public Works	1053	Little Ireland Road	Lasalle Line	Churchill Line	Road Base and Earthwork	2.99	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	18,760	18,760	-	848,764			0	10	1	2	3	30	M
Public Works	1054	Inwood Road	Churchill Line	Lasalle Line	Road Base and Earthwork	2.98	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	18,920	18,920	-	845,925			0	10	1	2	3	30	M
Public Works	1055	Inwood Road	Lasalle Line	Petrolia Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	23,570	23,570	-	772,120			0	10	1	2	3	30	M
Public Works	1056	Campbell Line	Inwood Rd	Sutorville	Road Base and Earthwork	1.84	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	11,560	11,560	-	522,316			0	10	1	2	3	30	M
Public Works	1057	Campbell Line	Sutorville	Little Ireland	Road Base and Earthwork	1.68	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,530	10,530	-	476,898			0	10	1	2	3	30	M
Public Works	1058	Sutorville Road	Aberteldy Rd	Campbell Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	8,840	8,840	-	386,060			0	10	1	2	3	30	M
Public Works	1059	Sutorville Road	Campbell Line	Oil Springs Line	Road Base and Earthwork	1.36	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,580	10,580	-	386,060			0	10	1	2	3	30	M
Public Works	1060	Sutorville Road	Oil Springs Line	Courtright Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	13,700	13,700	-	772,120			0	10	1	2	3	30	M
Public Works	1061	Sutorville Road	Courtright Line	Shiloh Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	16,620	16,620	-	772,120			0	10	1	2	3	30	M
Public Works	1062	Sutorville Road	Shiloh Line	Rokeby Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,000	17,000	-	769,281			0	10	1	2	3	30	M
Public Works	1063	Sutorville Road	Rokeby Line	Petrolia Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,060	17,060	-	772,120			0	10	1	2	3	30	M
Public Works	1064	Sutorville Road	Petrolia Line	Lasalle Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,060	17,060	-	772,120			0	10	1	2	3	30	M
Public Works	1065	Sutorville Road	Lasalle Line	Churchill Line	Road Base and Earthwork	2.98	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,930	20,930	-	845,925			0	10	1	2	3	30	M
Public Works	1066	White Pine Road	Churchill Line	Lasalle Line	Road Base and Earthwork	2.98	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	21,160	21,160	-	845,925			0	10	1	2	3	30	M
Public Works	1067	White Pine Road	Lasalle Line	Petrolia Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,260	17,260	-	772,120			0	10	1	2	3	30	M
Public Works	1068	White Pine Road	Petrolia Line	Rokeby Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	18,580	18,580	-	769,281			0	10	1	2	3	30	M
Public Works	1069	White Pine Road	Rokeby Line	South of Rokeby Dead End	Road Base and Earthwork	0.52	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	1,930	1,930	-	147,611			0	10	1	1	2	20	L
Public Works	1070	Conservation Road			Road Base and Earthwork	0.77	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	6,350	6,350	-	218,578			0	10	1	2	3	30	M
Public Works	1070.1	Conservation Road			Road Base and Earthwork	1.23	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,150	10,150	-	349,157			0	10	1	2	3	30	M
Public Works	1070.2	Conservation Road	Lobrellia Rd	Maple Ridge	Road Base and Earthwork	0.78	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	6,440	6,440	-	221,417			0	10	1	2	3	30	M
Public Works	1071	Conservation Road	Maple Ridge	Shiloh Line	Road Base and Earthwork	0.55	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	4,540	4,540	-	156,127			0	10	1	2	3	30	M
Public Works	1072	Hardy Creek Road	Shiloh Line	Rokeby Line	Road Base and Earthwork	2.27	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	17,080	17,080	-	644,379			0	10	1	2	3	30	M
Public Works	1073	Hardy Creek Road	Rokeby Line	Petrolia Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	21,270	21,270	-	769,281			0	10	1	2	3	30	M
Public Works	1074	Hardy Creek Road	Petrolia Line	Lasalle Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,390	20,390	-	772,120			0	10	1	2	3	30	M
Public Works	1075	Hardy Creek Road	Lasalle Line	Churchill Line	Road Base and Earthwork	2.98	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,420	20,420	-	845,925			0	10	1	2	3	30	M
Public Works	1076	Salem Road	Churchill Line	Lasalle Line	Road Base and Earthwork	2.96	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	20,790	20,790	-	840,248			0	10	1	2	3	30	M
Public Works	1077	Sexton Road			Road Base and Earthwork	2.96	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	23,930	23,930	-	840,248			0	10	1	2	3	30	M
Public Works	1077.1	Sexton Road			Road Base and Earthwork	2.75	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	22,230	22,230	-	780,636			0	10	1	2	3	30	M
Public Works	1077.2	Sexton Road	Petrolia Line	Rokeby Line	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	21,980	21,980	-	772,120			0	10	1	2	3	30	M
Public Works	1078	Sexton Road	Rokeby Line	Maple Ridge	Road Base and Earthwork	2.72	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	15,930	15,930	-	772,120			0	10	1	2	3	30	M
Public Works	1079	Sexton Road	Maple Ridge	Calvert Dr	Road Base and Earthwork	1.67	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	10,900	10,900	-	474,059			0	10	1	2	3	30	M
Public Works	1080	Gully Mor Road	Conservation Rd	Maple Ridge	Road Base and Earthwork	1.50	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	9,430	9,430	-	425,801			0	10	1	2	3	30	M

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Roads

Asset Description											Asset Age and Useful Life						Financial Information				Condition Rating			Probability of Failure	Consequence of Failure			Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Road Name	From	To	Component	Section Length (km)	Roadside Enviroment	Surface Type	Traffic Range	Paved / Unpaved	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated	Road Surface Asset Condition (from 2009 Study)	Road Surface Estimated Condition 2014	Road Base and Earthwork Condition (Age Based)		Roadside Environment	Traffic Rating	Total Consequence of Failure		
Public Works	1081	Gully Mor Road	Maple Ridge	Rokeby Line	Road Base and Earthwork	2.71	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	15,890	15,890	-	769,281			0	10	1	2	3	30	M
Public Works	1082	Gully Mor Road	Rokeby Line	Dead End	Road Base and Earthwork	0.44	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	2,550	2,550	-	124,902			0	10	1	1	2	20	L
Public Works	1083	Maple Ridge Line	Sexton Rd	Gully Mor Rd	Road Base and Earthwork	1.04	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	6,100	6,100	-	295,222			0	10	1	1	2	20	L
Public Works	1084	Maple Ridge Line	Gully Mor Rd	Conservation Rd	Road Base and Earthwork	1.45	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	8,490	8,490	-	411,608			0	10	1	2	3	30	M
Public Works	1085	Peak Of Mosa Road	Shiloh Line	Dead End	Road Base and Earthwork	1.39	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	6,080	6,080	-	394,576			0	10	1	1	2	20	L
Public Works	1086	Argyll Road	Shiloh Line	Dead End	Road Base and Earthwork	0.71	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	3,950	3,950	-	201,546			0	10	1	1	2	20	L
Public Works	1087	Argyll Road	Shiloh Line	Gardner Trail	Road Base and Earthwork	1.75	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	10,680	10,680	-	496,768			0	10	1	1	2	20	L
Public Works	1088	Gardner Trail	Dead End	Junction Rd	Road Base and Earthwork	2.22	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	15,200	15,200	-	630,186			0	10	1	1	2	20	L
Public Works	1088.1	Junction Road			Road Base and Earthwork	0.48	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	-	-	-	136,256			0	10	1	1	2	20	L
Public Works	1089	River Street	Shiloh Line	Brooke Line	Road Base and Earthwork	1.37	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	8,910	8,910	-	388,899			0	10	1	1	2	20	L
Public Works	1090	Brooke Line	Dead End	River St	Road Base and Earthwork	0.60	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	3,620	3,620	-	170,321			0	10	1	1	2	20	L
Public Works	1091	Brooke Line	River St	Hwy 79	Road Base and Earthwork	0.62	Rural	Gravel	50-199	Unpaved	1900	100	0	100	0	114	4,340	4,340	-	175,998			0	10	1	2	3	30	M
Public Works	1093	Shiloh Line	Peak of Mosa Rd	Hwy 79	Road Base and Earthwork	2.80	Rural	HCB	50-199	Paved	1983	75	44	75	44	31	344,560	103,368	241,192	794,829			6	4	1	2	3	12	L
Public Works	1093	Shiloh Line	Peak of Mosa Rd	Hwy 79	Road Surface	2.80	Rural	HCB	50-199	Paved	1989	20	0	20	0	25	189,940	189,940	-	377,759	7	5		5	1	2	3	15	L
Public Works	1094	Shiloh Line	Hwy 79	Old Walnut	Road Base and Earthwork	1.84	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	15,210	15,210	-	522,316			0	10	1	2	3	30	M
Public Works	1094	Shiloh Line	Hwy 79	Old Walnut	Road Surface	1.84	Rural	LCB	50-199	Paved	1996	8	0	8	0	18	31,240	31,240	-	58,673	6	5		5	1	2	3	15	L
Public Works	1095	Shiloh Line	Old Walnut	Ebenezer Rd	Road Base and Earthwork	1.85	Rural	LCB	50-199	Unpaved	1900	100	0	100	0	114	15,220	15,220	-	525,155			0	10	1	2	3	30	M
Public Works	1095	Shiloh Line	Old Walnut	Ebenezer Rd	BETTERMENTS - Base	1.85	Rural	LCB	50-199	Unpaved	2012	100	98	100	98	2	165,332	3,307	162,025	525,155			9	1	1	2	3	3	L
Public Works	1096	Shiloh Line	Ebenezer Rd	Little Ireland	Road Base and Earthwork	1.84	Rural	LCB	50-199	Unpaved	1900	100	0	100	0	114	15,200	15,200	-										
Public Works	1096	Shiloh Line	Ebenezer Rd	Little Ireland	BETTERMENTS - Base	1.84	Rural	LCB	50-199	Unpaved	2012	100	98	100	98	2	164,494	3,290	161,204	522,316			9	1	1	2	3	3	L
Public Works	1097	Shiloh Line	Little Ireland	Sutorville	Road Base and Earthwork	1.72	Rural	LCB	50-199	Unpaved	1900	100	0	100	0	114	14,160	14,160	-										
Public Works	1097	Shiloh Line	Little Ireland	Sutorville	BETTERMENTS - Base	1.72	Rural	LCB	50-199	Unpaved	2011	100	97	100	97	3	143,513	4,305	139,208	488,252			8	2	1	2	3	6	L
Public Works	1098	Shiloh Line	Sutorville	Inwood Rd	Road Base and Earthwork	1.84	Rural	LCB	50-199	Unpaved	1900	100	0	100	0	114	15,200	15,200	-										
Public Works	1098	Shiloh Line	Sutorville	Inwood Rd	BETTERMENTS - Base	1.84	Rural	LCB	50-199	Unpaved	2010	100	96	100	96	4	121,018	4,841	116,177	522,316			7	3	1	2	3	9	L
Public Works	1099	Shiloh Line	Inwood Rd	Forest Rd	Road Base and Earthwork	1.84	Rural	LCB	50-199	Unpaved	1900	100	0	100	0	114	15,170	15,170	-										
Public Works	1099	Shiloh Line	Inwood Rd	Forest Rd	BETTERMENTS - Base	1.84	Rural	LCB	50-199	Unpaved	2010	100	96	100	96	4	121,018	4,841	116,177	522,316			7	3	1	2	3	9	L
Public Works	1100	Rokeby Line	Forest Rd	Inwood Rd	Road Base and Earthwork	1.84	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	13,810	13,810	-	522,316			0	10	1	2	3	30	M
Public Works	1101	Rokeby Line	Inwood Rd	Sutorville	Road Base and Earthwork	1.84	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	13,810	13,810	-	522,316			0	10	1	2	3	30	M
Public Works	1102	Rokeby Line	Sutorville	Little Ireland	Road Base and Earthwork	1.73	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	13,540	13,540	-	491,091			0	10	1	2	3	30	M
Public Works	1103	Rokeby Line	Little Ireland	Ebenezer Rd	Road Base and Earthwork	1.84	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	14,420	14,420	-	522,316			0	10	1	2	3	30	M
Public Works	1104	Rokeby Line	Ebenezer Rd	Old Walnut	Road Base and Earthwork	1.85	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	16,010	16,010	-	525,155			0	10	1	2	3	30	M
Public Works	1104	Rokeby Line	Ebenezer Rd	Old Walnut	Road Surface	1.85	Rural	LCB	50-199	Paved	2008	7	1	7	1	6	27,596	23,654	3,942	29,268	8	6		4	1	2	3	12	L
Public Works	1105	Rokeby Line	Old Walnut	Hwy 79	Road Base and Earthwork	1.40	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	11,860	11,860	-	397,415			0	10	1	2	3	30	M
Public Works	1105	Rokeby Line	Old Walnut	Hwy 79	Road Surface	1.40	Rural	LCB	50-199	Paved	2008	7	1	7	1	6	20,883	17,900	2,983	22,148	8	7		3	1	2	3	9	L
Public Works	1106	Rokeby Line	Hwy 79	White Pine Rd	Road Base and Earthwork	2.29	Rural	LCB	50-199	Paved	1900	100	0	100	0	114	17,420	17,420	-	650,057			0	10	1	2	3	30	M
Public Works	1106	Rokeby Line	Hwy 79	White Pine Rd	Road Surface	2.29	Rural	LCB	50-199	Paved	2007	8	1	8	1	7	69,072	60,438	8,634	80,266	10	9		1	1	2	3	3	L
Public Works	1106	Rokeby Line	Hwy 79	White Pine Rd	Road Surface	2.29	Rural	LCB	50-199	Paved	2008	7	1	7	1	6	34,159	29,279	4,880	36,228	10	9		1	1	2	3	3	L
Public Works	1107	Rokeby Line	White Pine Rd	Hardy Creek Rd	Road Base and Earthwork	1.83	Rural	LCB	50-199	Paved	2005	100	91	100	91	9	390,610	31,249	359,361	519,478			9	1	1	2	3	3	L
Public Works	1107	Rokeby Line	White Pine Rd	Hardy Creek Rd	Road Surface	1.83	Rural	LCB	50-199	Paved	2007	8	1	8	1	7	51,803	45,328	6,475	60,199	8	7		3	1	2	3	9	L
Public Works	1107	Rokeby Line	White Pine Rd	Hardy Creek Rd	Road Surface	1.83	Rural	LCB	50-199	Paved	2008	7	1	7	1	6	27,298	23,398	3,900	28,951	8	7		3	1	2	3	9	L
Public Works	1108	Rokeby Line	Hardy Creek Rd	Gully Mar Rd	Road Base and Earthwork	1.83	Rural	LCB	50-199	Paved	2006	100	92	100	92	8	419,840	29,389	390,451	519,478			9	1	1	2	3	3	L
Public Works	1108	Rokeby Line	Hardy Creek Rd	Gully Mar Rd	Road Surface	1.83	Rural	LCB	50-199	Paved	2007	8	1	8	1	7	51,803	45,328	6,475	60,199	10	9		1	1	2	3	3	L
Public Works	1108	Rokeby Line	Hardy Creek Rd	Gully Mar Rd	Road Surface	1.83	Rural	LCB	50-199	Paved	2008	7	1	7	1	6	27,298	23,398	3,900	28,951	10	9		1	1	2	3	3	L
Public Works	1109	Rokeby Line	Gully Mor Rd	Sexton Rd	Road Base and Earthwork	1.06	Rural	LCB	50-199	Paved	2006	100	92	100	92	8	243,130	17,019	226,111	300,900			9	1	1	2	3	3	L
Public Works	1109	Rokeby Line	Gully Mor Rd	Sexton Rd	Road Surface	1.06	Rural	LCB	50-199	Paved	2007	8	1	8	1	7	28,780	25,183	3,598	33,444	10	9		1	1	2	3	3	L
Public Works	1109	Rokeby Line	Gully Mor Rd	Sexton Rd	Road Surface	1.06	Rural	LCB	50-199	Paved	2008	7	1	7	1	6	15,812	13,553	2,259	16,770	10	9		1	1	2	3	3	L
Public Works	1110	Hilly Rd	Rokeby Line	Dead End	Road Base and Earthwork	0.96	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	4,200	4,200	-	272,513			0	10	1	1	2	20	L
Public Works	1111	Petrolia Line	Hwy 79	White Pine Rd	Road Base and Earthwork	2.46	Rural	LCB	200-399	Paved	1985	100	71	100	71	29	342,230	95,824	246,406	698,314			7	3	1	3	4	12	L
Public Works	1111	Petrolia Line	Hwy 79	White Pine Rd	Road Surface	2.46	Rural	LCB	200-399	Paved	1985	8	0	8	0	29	-	-	-	-	8	7		3	1	3	4	12	L
Public Works	1112	Petrolia Line	White Pine Rd	Hardy Creek Rd	Road Base and Earthwork	1.83	Rural	LCB	200-399	Paved	1985	100	71	100	71	29	255,220	71,462	183,758	519,478			7	3	1	3	4	12	L
Public Works	1112	Petrolia Line	White Pine Rd	Hardy Creek Rd	Road Surface	1.83	Rural	LCB	200-399	Paved	1985	8	0	8	0	29	-	-	-	-	8	7		3	1	3	4	12	L
Public Works	1113	Petrolia Line	Hardy Creek Rd	Sexton Rd	Road Base and Earthwork	2.92	Rural	LCB	200-399	Paved	1985	100	71	100	71	29	406,140	113,719	292,421	828,893			7	3	1	3	4	12	L
Public Works	1113	Petrolia Line	Hardy Creek Rd	Sexton Rd	Road Surface	2.92	Rural	LCB	200-399	Paved	1985	8	0	8	0	29	-	-	-	-	8	7		3	1	3	4	12	L
Public Works	1114	La Salle Line	Sexton Rd	Hardy Line	Road Base and Earthwork	2.95	Rural	Gravel	200-399	Unpaved	1900	100	0	100	0	114	22,840	22,840	-				0	10	1	3	4	40	M
Public Works	1114	La Salle Line	Sexton Rd	Hardy Line	BETTERMENTS - Base	2.95	Rural	Gravel	200-399	Unpaved	2005	100	91	100	91	9	141,810	141,810	-	837,409			6	4	1	3	4	16	L
Public Works	1115	La Salle Line	Hardy Creek Rd	White Line	Road Base and Earthwork	1.84	Rural	Gravel	200-399	Unpaved	1900	100	0	100	0	114	14,280	14,280	-				0	10	1	3	4	40	M
Public Works	1115	La Salle Line	Hardy Creek Rd	White Line	BETTERMENTS - Base	1.84	Rural	Gravel	200-399	Unpaved	2009	100	95	100	95	5	33,480	20,925	12,555	522,316	8	7		3	1	3	4	12	L
Public Works	1116	La Salle Line	White Pine Rd	Hwy 79	Road Base and Earthwork	2.46	Rural	Gravel	200-399	Unpaved	1900	100	0	100	0	114	19,040	19,040	-				0	10	1	3	4	40	M
Public Works	1116	La Salle Line	White Pine Rd	Hwy 79	BETTERMENTS - Base	2.46	Rural	Gravel	200-399	Unpaved	2009	100	95	100	95	5	44,761	27,976	16,785	698,314	7	6		4	1	3	4	16	L
Public Works	1117	La Salle Line	Hwy 79	Old Walnut	Road Base and Earthwork	0.92	Rural	LCB	200-399	Paved	1900	100	0	100	0	114	7,590	7,590	-	261,158			0	10	1	3	4	40	M
Public Works	1117	La Salle Line	Hwy 79	Old Walnut	Road Surface	0.92	Rural	LCB	200-399	Paved	1999	8	0	8	0	15	38,460	38,460	-	67,818	8	5		5	1	3	4	20	L
Public Works	1118	La Salle Line	Old Walnut	Ebenezer Rd	Road Base and Earthwork	2.14	Rural	LCB	200-399	Paved	1900	100	0	100	0	114	17,690	17,690	-	607,477			0	10	1	3	4	40	M
Public Works	1118	La Salle Line	Old Walnut	Ebenezer Rd	Road Surface	2.14	Rural	LCB	200-399	Paved	1999	8	0	8	0	15	89,640	89,640	-	158,067	8	7		3	1	3	4	12	L
Public Works	1118	La Salle Line	Old Walnut	Ebenezer Rd	BETTERMENTS	2.14	Rural	LCB	200-399	Paved	2009	8	3	8	3	5	38,886	24,304	14,582	42,045	8	7		3	1	3	4	12	L
Public Works	1119	La Salle Line	Ebenezer	Little Ireland	Road Base and Earthwork	1.84	Rural	LCB	200-399	Paved	1900	100	0	100	0	114	15,210	15,210	-	522,316									
Public Works	1119	La Salle Line	Ebenezer	Little Ireland	BETTERMENTS - Base	1.84	Rural	LCB	200-399	Paved	2014	100	100	100	100	0				522,316			10	0	1	3	4	0	L
Public Works	1119	La Salle Line	Ebenezer	Little Ireland	Road Surface	1.84	Rural	LCB	200-399	Paved	2014	20	20	20	20	0	172,838	8,642	164,196	172,838	8	10		1	1	3	4	4	L
Public Works	1120	La Salle Line	Little Ireland	Sutorville	Road Base and Earthwork	1.84	Rural	LCB	200-399	Paved	1900	100	0	100	0	114	15,520	15,520	-	522,316			0	10	1	3	4	40	M
Public Works	1120	La Salle Line	Little Ireland	Sutorville	Road Surface	1.84	Rural	LCB	200-399	Paved	1999	8	0	8	0	15	77,100	77,100	-	135,954	9	6		4	1	3	4	16	L
Public Works	1121	La Salle Line	Sutorville	Inwood Rd	Road Base and Earthwork	1.84	Rural	LCB	200-399	Paved	1900	100	0	100	0	114	15,510	15,510	-	522,316			0	10	1	3	4	40	M
Public Works	1121	La Salle Line	Sutorville	Inwood Rd	Road Surface	1.84	Rural	LCB	200-399	Paved	1999	8	0	8	0	15	77,060	77,060	-	135,884	9	6		4	1	3	4	16	L
Public Works	1122	La Salle Line	Inwood Rd	Forest Rd	Road Base and Earthwork	1.84	Rural	LCB	200-399	Paved	1900	100	0	100	0	114	14,890	14,890	-	522,316			0	10	1	3	4	40	M
Public Works	1122	La Salle Line	Inwood Rd	Forest Rd	Road Surface	1.84	Rural	LCB	200-399	Paved	1999	8	0	8	0	15	77,020	77,020	-	135,813	9	7		3	1	3	4	12	L
Public Works	1123	Churchill Line	50 m west of Old Walnut	Hwy 79	Road Base and Earthwork	1.26	Rural	HCB	400-999	Paved	1900	100	0	100	0	114	9,240	9,240	-	357,673			0	10	1	4	5	50	M
Public Works	1123	Churchill Line	50 m west of Old Walnut	Hwy 79	Road Surface	1.26	Rural	HCB	400-999	Paved	1999	8	0	8	0	15	3,960	3,960	-	6,983	9	8		2	1	4	5	10	L
Public Works	1124	Churchill Line	Hwy 79	White Pine Rd	Road Base and Earthwork	2.48	Rural	HCB	400-999	Paved	1900	100	0	100	0	114	20,440	20,440	-	703,992			0	10	1	4	5	50	M
Public Works	1124	Churchill Line	Hwy 79	White Pine Rd	Road Surface	2.48	Rural	HCB	400-999	Paved	1998	20	4	20	4	16	176,190	132,143	44,048	318,236	7	4		6	1	4	5	30	M
Public Works	1124	Churchill Line	Hwy 79	White Pine Rd	BETTERMENTS	2.48	Rural	HCB	400-999	Paved	2009	8	3	8	3	5	77,212	48,258	28,955	83,484	7	4		6	1	4	5	30	M
Public Works	1125	Churchill Line	White Pine Rd	Hardy Creek Rd	Road Base and Earthwork	1.84	Rural	HCB	400-999	Paved	1900	100	0	100	0	114	15,480	15,480	-	522,316			0	10	1	4	5	50	M
Public Works	1125	Churchill Line	White Pine Rd	Hardy Creek Rd	Road Surface	1.84	Rural	HCB	400-999	Paved	1998	20	4	20	4	16	130,820	98,115	32,705	236,288	7	4		6	1	4	5	30	M
Public Works	1125	Churchill Line	White Pine Rd	Hardy Creek Rd	BETTERMENTS	1.84	Rural	HCB	400-999	Paved	2009	8	3	8	3	5	57,287	35,804	21,483	61,940	7	4		6	1	4	5	30	M
Public Works	1126	Churchill Line	Hardy Creek Rd	Salem Rd	Road Base and Earthwork	1.84	Rural	HCB	400-999	Paved	1900	100	0	100	0	114	15,440	15,440	-	522,316			0	10	1	4	5	50	M
Public Works	1126	Churchill Line	Hardy Creek Rd	Salem Rd	Road Surface	1.84	Rural	HCB	400-999	Paved	1998	20	4	20	4	16	130,480	97,860	32,620	235,674	7	4		6	1	4	5	30	M
Public Works	1126	Churchill Line	Hardy Creek Rd	Salem Rd	BETTERMENTS	1.84	Rural	HCB	400-999	Paved	2009	8	3	8	3	5	57,287	35,804	21,483	61,940	7	4		6	1	4	5	30	M
Public Works	1127	Churchill Line	Salem Rd	Sexton Rd	Road Base and Earthwork	1.12	Rural	HCB	400-999	Paved	1900	100	0	100	0	114	8,860	8,860	-	317,932			0	10	1	4	5	50	M
Public Works	1127	Churchill Line	Salem Rd	Sexton Rd	Road Surface	1.12	Rural	HCB	400-999	Paved	1998	20	4	20	4	16	79,770	59,828	19,943	144,081	8	3		7	1	4	5	35	M
Public Works	1127	Churchill Line	Salem Rd	Sexton Rd	BETTERMENTS	1.12	Rural	HCB	400-999	Paved	2009	8	3	8	3	5	34,870	21,794	13,076	37,702	8	3		7	1	4	5	35	M
Public Works	1128	Cemetary Rd	Churchill Line	Dead End	Road Base and Earthwork	0.22	Rural	Gravel	0-49	Unpaved	1900	100	0	100	0	114	1,170	1,170	-	62,451			0	10	1	1	2	20	L
Public Works	2000	River Street	Courtright Line	Lisgar St	Road Base and Earthwork	1.24	Rural	HCB	400-999	Paved	1900	100	0	100	0	114	9,630	9,630	-	351,996			0	10	1	4	5	50	M
Public Works	2000	River Street	Courtright Line	Lisgar St	Road Surface	1.24	Rural	HCB	400-999	Paved	2006	20	12	20	12	8	105,860	37,051	68,809	131,308	10	9		1	1	4	5	5	L
Public Works	2001	River Street	Lisgar	Francis	Road Base and Earthwork	0.12	Semi-Urban	HCB	400-999	Paved	1900	100	0	100	0	114	950	950	-	34,064			0	10	3	4	7	70	H
Public Works	2001	River Street	Lisgar	Francis	Road Surface	0.12	Semi-Urban	HCB	400-999	Paved	2006	20	12	20	12	8	10,920	3,822	7,098	13,545	10	9		1	3	4	7	7	L
Public Works	2002	River Street	Francis	Mill Pond	Road Base and Earthwork	0.10	Semi-Urban	LCB	400-999	Paved	1900	100	0	100	0	114	790	790	-	28,387			0	10	3	4	7	70	H
Public Works	2002	River Street	Francis	Mill Pond	Road Surface	0.10	Semi-Urban	LCB	400-999	Paved	2006	20	12	20	12	8	9,080	3,178	5,902	11,263	9	8		2	3	4	7	14	L
Public Works	2003	River Street	Mill Pond	Railroad Line	Road Base and Earthwork	0.17	Semi-Urban	HCB	400-999	Paved	1900	100	0	100	0	114	1,300	1,300	-	48,257			0	10	3	4	7	70	H

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Roads

Asset Description										Asset Age and Useful Life						Financial Information				Condition Rating			Probability of Failure	Consequence of Failure			Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Road Name	From	To	Component	Section Length (km)	Roadside Enviroment	Surface Type	Traffic Range	Paved / Unpaved	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated	Road Surface Asset Condition (from 2009 Study)	Road Surface Estimated Condition 2014	Road Base and Earthwork Condition (Age Based)		Roadside Environment	Traffic Rating	Total Consequence of Failure		
Public Works	2003	River Street	Mill Pond	Railroad Line	Road Surface	0.17	Semi-Urban	HCB	400-999	Paved	2006	20	12	20	12	8	14,890	5,212	9,679	18,469	8	7		3	3	4	7	21	L
Public Works	2004	River Street	Railroad Line	Centre St	Road Base and Earthwork	0.15	Urban	HCB	400-999	Paved	1900	100	0	100	0	114	26,130	26,130	-	42,580			0	10	5	4	9	90	E
Public Works	2004	River Street	Railroad Line	Centre St	Road Surface	0.15	Urban	HCB	400-999	Paved	1980	20	0	20	0	34	14,290	14,290	-	53,660	9	8		2	5	4	9	18	L
Public Works	2005	River Street	Centre St	Sydenham	Road Base and Earthwork	0.09	Urban	HCB	400-999	Paved	1900	100	0	100	0	114	1,950	1,950	-	25,548			0	10	5	4	9	90	E
Public Works	2005	River Street	Centre St	Sydenham	Road Surface	0.09	Urban	HCB	400-999	Paved	1994	20	0	20	0	20	16,330	15,514	817	32,225	10	9		1	5	4	9	9	L
Public Works	2006	River Street	Sydenham	Lorne St	Road Base and Earthwork	0.08	Urban	HCB	400-999	Paved	1900	100	0	100	0	114	1,480	1,480	-	22,709			0	10	5	4	9	90	E
Public Works	2006	River Street	Sydenham	Lorne St	Road Surface	0.08	Urban	HCB	400-999	Paved	1994	20	0	20	0	20	14,470	13,747	724	28,555	10	9		1	5	4	9	9	L
Public Works	2006.1	River Street	Lorne	Wallace St	Road Base and Earthwork	0.15	Semi-Urban	HCB	400-999	Paved	1900	100	0	100	0	114	1,050	1,050	-	42,580			0	10	3	4	7	70	H
Public Works	2006.1	River Street	Lorne	Wallace St	Road Surface	0.15	Semi-Urban	HCB	400-999	Paved	1994	20	0	20	0	20	19,050	18,098	953	37,593	10	6		4	3	4	7	28	M
Public Works	2007	River Street	Wallace St	Shiloh	Road Base and Earthwork	0.85	Semi-Urban	HCB	400-999	Paved	1900	100	0	100	0	114	5,890	5,890	-	241,287			0	10	3	4	7	70	H
Public Works	2007	River Street	Wallace St	Shiloh	Road Surface	0.85	Semi-Urban	HCB	400-999	Paved	1995	20	1	20	1	19	109,150	98,235	10,915	208,893	8	5		5	3	4	7	35	M
Public Works	2008	Wallace Street	River St	Elgin St	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	830	830	-	31,225			0	10	3	2	5	50	M
Public Works	2008	Wallace Street	River St	Elgin St	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	2002	20	8	20	8	12	16,910	9,301	7,610	26,047	10	9		1	3	2	5	5	L
Public Works	2009	Wallace Street	Elgin St	Walnut	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	760	760	-	31,225			0	10	3	2	5	50	M
Public Works	2009	Wallace Street	Elgin St	Walnut	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	2002	20	8	20	8	12	15,600	8,580	7,020	24,029	10	9		1	3	2	5	5	L
Public Works	2010	Walnut Street	The Arena	Wallace St	Road Base and Earthwork	0.17	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,120	1,120	-	48,257			0	10	3	2	5	50	M
Public Works	2010	Walnut Street	The Arena	Wallace St	Road Surface	0.17	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	21,440	20,368	1,072	42,309	8	5		5	3	2	5	25	L
Public Works	2011	Walnut Street	Wallace St	Lorne St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,020	1,020	-	45,419			0	10	3	2	5	50	M
Public Works	2011	Walnut Street	Wallace St	Lorne St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	19,550	18,573	978	38,579	8	6		4	3	2	5	20	L
Public Works	2012	Walnut Street	Lorne	Centre St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,070	1,070	-	45,419			0	10	3	2	5	50	M
Public Works	2012	Walnut Street	Lorne	Centre St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	20,560	19,532	1,028	40,572	7	6		4	3	2	5	20	L
Public Works	2013	Walnut Street	Centre St	Railroad Line	Road Base and Earthwork	0.15	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,090	1,090	-	42,580			0	10	3	2	5	50	M
Public Works	2013	Walnut Street	Centre St	Railroad Line	Road Surface	0.15	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	19,050	18,098	953	37,593	9	8		2	3	2	5	10	L
Public Works	2014	Elgin Street	Railroad Line	Centre St	Road Base and Earthwork	0.15	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,000	1,000	-	42,580			0	10	3	2	5	50	M
Public Works	2014	Elgin Street	Railroad Line	Centre St	Road Surface	0.15	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	18,920	17,974	946	37,336	8	5		5	3	2	5	25	L
Public Works	2015	Elgin Street	Centre St	Lorne St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,080	1,080	-	45,419			0	10	3	2	5	50	M
Public Works	2015	Elgin Street	Centre St	Lorne St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	20,690	19,656	1,035	40,829	7	6		4	3	2	5	20	L
Public Works	2016	Elgin Street	Lorne	Wallace St	Road Base and Earthwork	0.15	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,010	1,010	-	42,580			0	10	3	2	5	50	M
Public Works	2016	Elgin Street	Lorne	Wallace St	Road Surface	0.15	Semi-Urban	HCB	50-199	Paved	2002	20	8	20	8	12	22,500	12,375	10,125	34,658	8	7		3	3	2	5	15	L
Public Works	2017	Elgin Street	Wallace St	Dead End	Road Base and Earthwork	0.20	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	1,400	1,400	-	56,774			0	10	3	1	4	40	M
Public Works	2017	Elgin Street	Wallace St	Dead End	Road Surface	0.20	Semi-Urban	HCB	0-49	Paved	2002	20	8	20	8	12	28,670	15,769	12,902	44,162	8	7		3	3	1	4	12	L
Public Works	2018	Morrell Street	Hwy 79	Lorne St	Road Base and Earthwork	0.32	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	2,450	2,450	-	90,838			0	10	3	2	5	50	M
Public Works	2018	Morrell Street	Hwy 79	Lorne St	Road Surface	0.32	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	40,590	38,561	2,030	80,099	7	6		4	3	2	5	20	L
Public Works	2019	Henry Street	Lorne	Centre St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,060	1,060	-	45,419			0	10	3	2	5	50	M
Public Works	2019	Henry Street	Lorne	Centre St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	20,430	19,409	1,022	40,316	7	6		4	3	2	5	20	L
Public Works	2020	Henry Street	Centre St	Railroad Line	Road Base and Earthwork	0.15	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,020	1,020	-	42,580			0	10	3	2	5	50	M
Public Works	2020	Henry Street	Centre St	Railroad Line	Road Surface	0.15	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	18,920	17,974	946	37,336	7	6		4	3	2	5	20	L
Public Works	2021	Lovell Street	Railroad Line	Centre St	Road Base and Earthwork	0.15	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	970	970	-	42,580			0	10	3	2	5	50	M
Public Works	2021	Lovell Street	Railroad Line	Centre St	Road Surface	0.15	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	18,670	17,737	934	36,843	8	5		5	3	2	5	25	L
Public Works	2022	Lovell Street	Centre St	Lorne St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,070	1,070	-	45,419			0	10	3	2	5	50	M
Public Works	2022	Lovell Street	Centre St	Lorne St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	20,560	19,532	1,028	40,572	8	6		4	3	2	5	20	L
Public Works	2023	Elm Street	Dead End	Centre St	Road Base and Earthwork	0.13	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	810	810	-	36,903			0	10	3	1	4	40	M
Public Works	2023	Elm Street	Dead End	Centre St	Road Surface	0.13	Semi-Urban	HCB	0-49	Paved	1994	20	0	20	0	20	16,440	15,618	822	32,442	7	6		4	3	1	4	16	L
Public Works	2024	Elm Street	Centre St	Railroad Line	Road Base and Earthwork	0.15	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	920	920	-	42,580			0	10	3	2	5	50	M
Public Works	2024	Elm Street	Centre St	Railroad Line	Road Surface	0.15	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	18,420	17,499	921	36,349	7	6		4	3	2	5	20	L
Public Works	2025	Railroad Line	South Town Limits	Elm St	Road Base and Earthwork	0.62	Semi-Urban	LCB	50-199	Paved	1900	100	0	100	0	114	4,130	4,130	-	175,998			0	10	3	2	5	50	M
Public Works	2025	Railroad Line	South Town Limits	Elm St	Road Surface	0.62	Semi-Urban	LCB	50-199	Paved	1992	20	0	20	0	22	76,770	76,770	-	156,534	9	4		6	3	2	5	30	M
Public Works	2026	Railroad Line	Elm St	Hwy 79	Road Base and Earthwork	0.12	Semi-Urban	LCB	50-199	Paved	1900	100	0	100	0	114	840	840	-	34,064			0	10	3	2	5	50	M
Public Works	2026	Railroad Line	Elm St	Hwy 79	Road Surface	0.12	Semi-Urban	LCB	50-199	Paved	1994	20	0	20	0	20	14,760	14,022	738	29,127	9	8		2	3	2	5	10	L
Public Works	2027	Railroad Line	Hwy 79	Lovell St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,240	1,240	-	45,419			0	10	3	2	5	50	M
Public Works	2027	Railroad Line	Hwy 79	Lovell St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	20,180	19,171	1,009	39,822	9	8		2	3	2	5	10	L
Public Works	2028	Railroad Line	Lovell St	Henry	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	850	850	-	31,225			0	10	3	2	5	50	M
Public Works	2028	Railroad Line	Lovell St	Henry	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	13,880	13,186	694	27,390	9	8		2	3	2	5	10	L
Public Works	2029	Railroad Line	Henry	Walnut	Road Base and Earthwork	0.14	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,060	1,060	-	39,741			0	10	3	2	5	50	M
Public Works	2029	Railroad Line	Henry	Walnut	Road Surface	0.14	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	17,160	16,302	858	33,863	9	8		2	3	2	5	10	L
Public Works	2030	Railroad Line	Walnut	Elgin St	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	840	840	-	31,225			0	10	3	2	5	50	M
Public Works	2030	Railroad Line	Walnut	Elgin St	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	13,620	12,939	681	26,877	10	8		2	3	2	5	10	L
Public Works	2031	Railroad Line	Elgin St	River St	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	880	880	-	31,225			0	10	3	2	5	50	M
Public Works	2031	Railroad Line	Elgin St	River St	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	14,250	13,538	713	28,120	9	8		2	3	2	5	10	L
Public Works	2032	Railroad Line	River St	Church St	Road Base and Earthwork	0.10	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	1,060	1,060	-	28,387			0	10	3	1	4	40	M
Public Works	2032	Railroad Line	River St	Church St	Road Surface	0.10	Semi-Urban	HCB	0-49	Paved	1996	20	2	20	2	18	13,090	11,127	1,964	24,585	8	7		3	3	1	4	12	L
Public Works	2033	Church Street	Railroad Line	Centre St	Road Base and Earthwork	0.14	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,220	1,220	-	39,741			0	10	3	2	5	50	M
Public Works	2033	Church Street	Railroad Line	Centre St	Road Surface	0.14	Semi-Urban	HCB	50-199	Paved	1996	20	2	20	2	18	18,230	15,496	2,735	34,239	9	8		2	3	2	5	10	L
Public Works	2034	Church Street	Centre St	Sydenham	Road Base and Earthwork	0.08	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	740	740	-	22,709			0	10	3	1	4	40	M
Public Works	2034	Church Street	Centre St	Sydenham	Road Surface	0.08	Semi-Urban	HCB	0-49	Paved	1996	20	2	20	2	18	10,600	9,010	1,590	19,908	7	4		6	3	1	4	24	L
Public Works	2035	Sydenham Street	Dead End	Church St	Road Base and Earthwork	0.10	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	890	890	-	28,387			0	10	3	1	4	40	M
Public Works	2036	Sydenham Street	Church	River St	Road Base and Earthwork	0.10	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	870	870	-	28,387			0	10	3	1	4	40	M
Public Works	2036.1	Centre Street	Church	River St	Road Base and Earthwork	0.10	Urban	HCB	0-49	Paved	1900	100	0	100	0	114	1,100	1,100	-	28,387			0	10	5	1	6	60	H
Public Works	2036.1	Centre Street	Church	River St	Road Surface	0.10	Urban	HCB	0-49	Paved	1994	20	0	20	0	20	18,920	17,974	946	37,336	9	8		2	5	1	6	12	L
Public Works	2037	Centre Street			Road Base and Earthwork	0.11	Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,220	1,220	-	31,225			0	10	5	2	7	70	H
Public Works	2037	Centre Street			Road Surface	0.11	Urban	HCB	50-199	Paved	2007	20	13	20	13	7	18,670	6,535	12,135	21,696	10	9		1	5	2	7	7	L
Public Works	2038	Centre Street			Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	810	810	-	31,225			0	10	3	2	5	50	M
Public Works	2038	Centre Street			Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	2007	20	13	20	13	7	17,680	6,188	11,492	20,545	10	9		1	3	2	5	5	L
Public Works	2039	Centre Street			Road Base and Earthwork	0.14	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,040	1,040	-	39,741			0	10	3	2	5	50	M
Public Works	2039	Centre Street			Road Surface	0.14	Semi-Urban	HCB	50-199	Paved	2007	20	13	20	13	7	22,470	7,865	14,605	26,112	10	9		1	3	2	5	5	L
Public Works	2040	Centre Street			Road Base and Earthwork	0.10	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	800	800	-	28,387			0	10	3	2	5	50	M
Public Works	2040	Centre Street			Road Surface	0.10	Semi-Urban	HCB	50-199	Paved	2007	20	13	20	13	7	17,020	5,957	11,063	19,778	10	9		1	3	2	5	5	L
Public Works	2041	Centre Street			Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1990	100	76	100	76	24	1,240	1,240	-	45,419			8	2	3	2	5	10	L
Public Works	2041	Centre Street	Lovell St	Hwy 79	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	2007	20	13	20	13	7	26,440	9,254	17,186	30,725	10	9		1	3	2	5	5	L
Public Works	2042	Centre Street	Hwy 79	Elm St	Road Base and Earthwork	0.12	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	760	760	-	34,064			0	10	3	1	4	40	M
Public Works	2042	Centre Street	Hwy 79	Elm St	Road Surface	0.12	Semi-Urban	HCB	0-49	Paved	1994	20	0	20	0	20	15,520	14,744	776	30,627	8	5		5	3	1	4	20	L
Public Works	2043	Centre Street	Elm St	Dead End	Road Base and Earthwork	0.22	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	1,520	1,520	-	62,451			0	10	3	1	4	40	M
Public Works	2044	Lorne Street	Hwy 79	Lovell St	Road Base and Earthwork	0.16	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,300	1,300	-	45,419			0	10	3	2	5	50	M
Public Works	2044	Lorne Street	Hwy 79	Lovell St	Road Surface	0.16	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	20,060	19,057	1,003	39,586	8	6		4	3	2	5	20	L
Public Works	2045	Lorne Street	Lovell St	Henry	Road Base and Earthwork	0.10	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	850	850	-	28,387			0	10	3	2	5	50	M
Public Works	2045	Lorne Street	Lovell St	Henry	Road Surface	0.10	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	12,990	12,341	650	25,634	8	6		4	3	2	5	20	L
Public Works	2046	Lorne Street	Henry	Walnut	Road Base and Earthwork	0.14	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,020	1,020	-	39,741			0	10	3	2	5	50	M
Public Works	2046	Lorne Street	Henry	Walnut	Road Surface	0.14	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	17,410	16,540	871	34,356	8	7		3	3	2	5	15	L
Public Works	2047	Lorne Street	Walnut	Elgin St	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	780	780	-	31,225			0	10	3	2	5	50	M
Public Works	2047	Lorne Street	Walnut	Elgin St	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	13,240	12,578	662	26,127	9	8		2	3	2	5	10	L
Public Works	2048	Lorne Street	Elgin St	River St	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	850	850	-	31,225			0	10	3	2	5	50	M
Public Works	2048	Lorne Street	Elgin St	River St	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	14,510	13,785	726	28,633	9	7		3	3	2	5	15	L
Public Works	2049	Patterson Street	Railroad Line	Mill Pond	Road Base and Earthwork	0.19	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	1,340	1,340	-	53,935			0	10	3	1	4	40	M
Public Works	2050	Mill Street	Hwy 79	Patterson	Road Base and Earthwork	0.21	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	1,040	1,040	-	59,612			0	10	3	1	4	40	M
Public Works	2051	Millpond Avenue	Hwy 79	Patterson	Road Base and Earthwork	0.21	Semi-Urban	LCB	50-199	Paved	1900	100	0	100	0	114	1,620	1,620	-	59,612			0	10	3	2	5	50	M
Public Works	2051	Millpond Avenue	Hwy 79	Patterson	Road Surface	0.21	Semi-Urban	LCB	50-199	Paved	1990	8	0	8	0	24	24,120	24,120	-	46,794	8	4		6	3	2	5	30	M

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Roads

Asset Description											Asset Age and Useful Life						Financial Information				Condition Rating			Probability of Failure	Consequence of Failure			Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Road Name	From	To	Component	Section Length (km)	Roadside Enviroment	Surface Type	Traffic Range	Paved / Unpaved	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated	Road Surface Asset Condition (from 2009 Study)	Road Surface Estimated Condition 2014	Road Base and Earthwork Condition (Age Based)		Roadside Environment	Traffic Rating	Total Consequence of Failure		
Public Works	2052	Millpond Avenue	Patterson	Broadway St	Road Base and Earthwork	0.30	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	2,310	2,310	-	85,160			0	10	3	2	5	50	M
Public Works	2052	Millpond Avenue	Patterson	Broadway St	Road Surface	0.30	Semi-Urban	HCB	50-199	Paved	1990	20	0	20	0	24	34,400	34,400	-	66,738	8	4		6	3	2	5	30	M
Public Works	2053	Millpond Avenue	Broadway	River St	Road Base and Earthwork	0.17	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,350	1,350	-	48,257			0	10	3	2	5	50	M
Public Works	2053	Millpond Avenue	Broadway	River St	Road Surface	0.17	Semi-Urban	HCB	50-199	Paved	1990	20	0	20	0	24	20,140	20,140	-	39,073	8	5		5	3	2	5	25	L
Public Works	2054	Francis Street	River St	Broadway St	Road Base and Earthwork	0.23	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,490	1,490	-	65,290			0	10	3	2	5	50	M
Public Works	2054	Francis Street	River St	Broadway St	Road Surface	0.23	Semi-Urban	HCB	50-199	Paved	1994	20	0	20	0	20	28,660	27,227	1,433	56,557	8	6		4	3	2	5	20	L
Public Works	2055	Francis Street	Broadway	Dead End	Road Base and Earthwork	0.10	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	670	670	-	28,387			0	10	3	1	4	40	M
Public Works	2055	Francis Street	Broadway	Dead End	Road Surface	0.10	Semi-Urban	HCB	0-49	Paved	1994	20	0	20	0	20	12,870	12,227	644	25,397	7	6		4	3	1	4	16	L
Public Works	2056	Lisgar Street	River St	Broadway St	Road Base and Earthwork	0.30	Semi-Urban	HCB	0-49	Paved	1900	100	0	100	0	114	2,070	2,070	-	85,160			0	10	3	1	4	40	M
Public Works	2056	Lisgar Street	River St	Broadway St	Road Surface	0.30	Semi-Urban	HCB	0-49	Paved	1994	20	0	20	0	20	37,240	35,378	1,862	73,488	7	6		4	3	1	4	16	L
Public Works	2057	Broadway Street	Dead End	LisgarSt	Road Base and Earthwork	0.31	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	2,260	2,260	-	87,999			0	10	3	2	5	50	M
Public Works	2057	Broadway Street	Dead End	LisgarSt	Road Surface	0.31	Semi-Urban	HCB	50-199	Paved	1990	20	0	20	0	24	36,010	36,010	-	69,861	7	6		4	3	2	5	20	L
Public Works	2058	Broadway Street	Lisgar	Francis	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	810	810	-	31,225			0	10	3	2	5	50	M
Public Works	2058	Broadway Street	Lisgar	Francis	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1990	20	0	20	0	24	12,930	12,930	-	25,085	8	6		4	3	2	5	20	L
Public Works	2059	Broadway Street	Francis	Mill Pond	Road Base and Earthwork	0.11	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	810	810	-	31,225			0	10	3	2	5	50	M
Public Works	2059	Broadway Street	Francis	Mill Pond	Road Surface	0.11	Semi-Urban	HCB	50-199	Paved	1990	20	0	20	0	24	12,810	12,810	-	24,852	8	6		4	3	2	5	20	L
Public Works	2060	Brooke Street	River St	Dead End	Road Base and Earthwork	0.85	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	4,310	4,310	-	241,287			0	10	3	1	4	40	M
Public Works	3000	Holmes Street	Inwood Rd	Weidman	Road Base and Earthwork	0.11	Semi-Urban	Gravel	0-49	Unpaved	1900	100	0	100	0	114	760	760	-	31,225			0	10	3	1	4	40	M
Public Works	3001	Moore Street	Inwood Rd	Queen St	Road Base and Earthwork	0.12	Urban	LCB	0-49	Paved	2013	100	99	100	99	1	1,710	1,710	-	34,064			10	0	5	1	6	0	L
Public Works	3001	Moore Street	Inwood Rd	Queen St	Road Surface	0.12	Urban	LCB	0-49	Paved	2013	8	7	8	7	1	2,158	1,349	809	2,186	7	10		1	5	1	6	6	L
Public Works	3002	Moore Street	Queen St	Dead End	Road Base and Earthwork	0.13	Semi-Urban	LCB	0-49	Paved	2013	100	99	100	99	1	900	900	-	36,903			10	0	3	1	4	0	L
Public Works	3002	Moore Street	Queen St	Dead End	Road Surface	0.13	Semi-Urban	LCB	0-49	Paved	2013	8	7	8	7	1	2,337	1,461	876	2,368	7	10		1	3	1	4	4	L
Public Works	3003	Queen Street	Moore St	Centre St	Road Base and Earthwork	0.26	Semi-Urban	LCB	0-49	Paved	2013	100	99	100	99	1	2,110	2,110	-	73,806			10	0	3	1	4	0	L
Public Works	3003	Queen Street	Moore St	Centre St	Road Surface	0.26	Semi-Urban	LCB	0-49	Paved	2013	8	7	8	7	1	4,675	2,922	1,753	4,736	6	10		1	3	1	4	4	L
Public Works	3004	Queen Street	Centre St	Dead End	Road Base and Earthwork	0.17	Semi-Urban	LCB	0-49	Paved	2013	100	99	100	99	1	1,170	1,170	-	48,257			10	0	3	1	4	0	L
Public Works	3004	Queen Street	Centre St	Dead End	Road Surface	0.17	Semi-Urban	LCB	0-49	Paved	2013	8	7	8	7	1	3,057	1,911	1,146	3,097	6	10		1	3	1	4	4	L
Public Works	3005	Mcnally Street	Queen St	Inwood Rd	Road Base and Earthwork	0.12	Semi-Urban	LCB	0-49	Paved	2013	100	99	100	99	1	760	760	-	34,064			10	0	3	1	4	0	L
Public Works	3005	Mcnally Street	Queen St	Inwood Rd	Road Surface	0.12	Semi-Urban	LCB	0-49	Paved	2013	8	7	8	7	1	15,390	15,390	-	15,592	9	10		1	3	1	4	4	L
Public Works	3006	James Street	Inwood Rd	Park St	Road Base and Earthwork	0.13	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	1,180	1,180	-	36,903			0	10	3	2	5	50	M
Public Works	3006	James Street	Inwood Rd	Park St	Road Surface	0.13	Semi-Urban	HCB	50-199	Paved	2002	20	8	20	8	12	18,970	10,434	8,537	29,220	5	3		7	3	2	5	35	M
Public Works	3006	James Street	Inwood Rd	Park St	BETTERMENTS	0.13	Semi-Urban	HCB	50-199	Paved	2009	8	3	8	3	5	2,337	1,461	876	2,527	5	3		7	3	2	5	35	M
Public Works	3007	James Street	Park St	Dead End	Road Base and Earthwork	0.48	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	4,400	4,400	-	136,256			0	10	3	2	5	50	M
Public Works	3007	James Street	Park St	Dead End	Road Surface	0.48	Semi-Urban	HCB	50-199	Paved	2002	20	8	20	8	12	71,170	39,144	32,027	109,626	5	3		7	3	2	5	35	M
Public Works	3007	James Street	Park St	Dead End	BETTERMENTS	0.48	Semi-Urban	HCB	50-199	Paved	2009	8	3	8	3	5	8,631	5,394	3,237	9,332	5	3		7	3	2	5	35	M
Public Works	3008	Park Street	James	Atkinson	Road Base and Earthwork	0.10	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	680	680	-	28,387			0	10	3	2	5	50	M
Public Works	3008	Park Street	James	Atkinson	Road Surface	0.10	Semi-Urban	HCB	50-199	Paved	2004	20	10	20	10	10	14,630	6,584	8,047	20,388	5	3		7	3	2	5	35	M
Public Works	3008	Park Street	James	Atkinson	BETTERMENTS	0.10	Semi-Urban	HCB	50-199	Paved	2009	8	3	8	3	5	1,798	1,124	674	1,944	5	3		7	3	2	5	35	M
Public Works	3009	Park Street	Atkinson	Inwood Rd	Road Base and Earthwork	0.32	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	2,300	2,300	-	90,838			0	10	3	2	5	50	M
Public Works	3009	Park Street	Atkinson	Inwood Rd	Road Surface	0.32	Semi-Urban	HCB	50-199	Paved	2004	20	10	20	10	10	49,420	22,239	27,181	68,871	5	3		7	3	2	5	35	M
Public Works	3009	Park Street	Atkinson	Inwood Rd	BETTERMENTS	0.32	Semi-Urban	HCB	50-199	Paved	2009	8	3	8	3	5	5,754	3,596	2,158	6,221	5	3		7	3	2	5	35	M
Public Works	3010	Atkinson Street	Inwood Rd	Park St	Road Base and Earthwork	0.13	Semi-Urban	HCB	50-199	Paved	1900	100	0	100	0	114	870	870	-	36,903			0	10	3	2	5	50	M
Public Works	3010	Atkinson Street	Inwood Rd	Park St	Road Surface	0.13	Semi-Urban	HCB	50-199	Paved	2004	20	10	20	10	10	19,710	8,870	10,841	27,467	5	3		7	3	2	5	35	M
Public Works	3010	Atkinson Street	Inwood Rd	Park St	BETTERMENTS	0.13	Semi-Urban	HCB	50-199	Paved	2009	8	3	8	3	5	2,337	1,461	876	2,527	5	3		7	3	2	5	35	M
Public Works	3011	Beaver Alley	Atkinson	Dead End	Road Base and Earthwork	0.13	Semi-Urban	HCB	0-49	Unpaved	1900	100	0	100	0	114	410	410	-	36,903			0	10	3	1	4	40	M

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Bridges and Culverts

Asset Description							Asset Age and Useful Life						Financial Information				Condition Rating (Based on 2009 Study) (1 to 4)	Probability of Failure	Consequence of Failure	Risk of Failure	Risk of Failure
Department	Asset ID	Location	Name/Details	Bridge / Culvert	Asset Description	Component	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
																		4	4	16	
													$ 4,533,797	$ 2,496,082	$ 2,037,714	$ 27,235,128					
Public Works	3	Petrolia Line		Bridge	I-Beam	Earth work, abutm'ts & piers	1965	80	31	80	31	49	36,221	21,732	14,488	383,341	3.31	0.69	3.00	2.09	L
Public Works	3	Petrolia Line		Bridge	I-Beam	Super - Structure	1965	40	0	40	0	49	17,708	17,708	-	187,411	3.31	0.69	3.00	2.09	L
Public Works	3	Petrolia Line		Bridge	I-Beam	Deck & Surface	1965	40	0	40	0	49	26,562	26,562	-	281,116	3.31	0.69	3.00	2.09	L
Public Works	3	Petrolia Line		Bridge	I-Beam	Guiderails	1965	30	0	30	0	49	3,639	3,639	-	38,510	3.31	0.69	3.00	2.09	L
Public Works	4	Hardy Creek Road	Hardy Creek Sect 1074	Bridge	Rigid Frame	Earth work, abutm'ts & piers	1965	80	31	80	31	49	37,954	22,773	15,181	401,682	2.60	1.40	3.00	4.20	M
Public Works	4	Hardy Creek Road	Hardy Creek Sect 1074	Bridge	Rigid Frame	Super - Structure	1965	40	0	40	0	49	18,555	18,555	-	196,378	2.60	1.40	3.00	4.20	M
Public Works	4	Hardy Creek Road	Hardy Creek Sect 1074	Bridge	Rigid Frame	Deck & Surface	1965	40	0	40	0	49	27,833	27,833	-	294,567	2.60	1.40	3.00	4.20	M
Public Works	6	Rokeby Line	McEachern Bridge	Bridge	I-Beam	Earth work, abutm'ts & piers	1955	80	21	80	21	59	49,413	35,824	13,588	709,873	3.37	0.63	3.00	1.89	L
Public Works	6	Rokeby Line	McEachern Bridge	Bridge	I-Beam	Super - Structure	1955	40	0	40	0	59	24,157	24,157	-	347,049	3.37	0.63	3.00	1.89	L
Public Works	6	Rokeby Line	McEachern Bridge	Bridge	I-Beam	Deck & Surface	1955	40	0	40	0	59	36,236	36,236	-	520,573	3.37	0.63	3.00	1.89	L
Public Works	6	Rokeby Line	McEachern Bridge	Bridge	I-Beam	Structure Betterments	1955	30	0	30	0	59	267,935	71,449	196,485	3,849,205	3.37	0.63	3.00	1.89	L
Public Works	8	Rokeby Line	Mitchells Bridge	Bridge	T-Beam	Earth work, abutm'ts & piers	1973	80	39	80	39	41	106,817	53,409	53,408	650,149	3.39	0.61	3.00	1.83	L
Public Works	8	Rokeby Line	Mitchells Bridge	Bridge	T-Beam	Super - Structure	1973	40	0	40	0	41	52,222	52,222	-	317,850	3.39	0.61	3.00	1.83	L
Public Works	8	Rokeby Line	Mitchells Bridge	Bridge	T-Beam	Deck & Surface	1973	40	0	40	0	41	78,333	78,333	-	476,776	3.39	0.61	3.00	1.83	L
Public Works	8	Rokeby Line	Mitchells Bridge	Bridge	T-Beam	Guiderails	1973	30	0	30	0	41	5,105	5,105	-	31,070	3.39	0.61	3.00	1.83	L
Public Works	9	Hardy Creek Road	Hardy Creek Sect 1072	Bridge	I-Beam	Earth work, abutm'ts & piers	1979	80	45	80	45	35	189,405	80,497	108,908	799,577	3.45	0.55	3.00	1.65	L
Public Works	9	Hardy Creek Road	Hardy Creek Sect 1072	Bridge	I-Beam	Super - Structure	1979	40	5	40	5	35	92,598	78,708	13,890	390,904	3.45	0.55	3.00	1.65	L
Public Works	9	Hardy Creek Road	Hardy Creek Sect 1072	Bridge	I-Beam	Deck & Surface	1979	40	5	40	5	35	138,897	118,062	20,835	586,356	3.45	0.55	3.00	1.65	L
Public Works	9	Hardy Creek Road	Hardy Creek Sect 1072	Bridge	I-Beam	Guiderails	1979	30	0	30	0	35	8,652	8,652	-	36,524	3.45	0.55	3.00	1.65	L
Public Works	13	Shiloh Line		Bridge	Rigid Frame	Earth work, abutm'ts & piers	1990	80	56	80	56	24	163,309	46,951	116,358	316,829	2.94	1.06	3.00	3.19	L
Public Works	13	Shiloh Line		Bridge	Rigid Frame	Super - Structure	1990	40	16	40	16	24	79,840	45,908	33,932	154,894	2.94	1.06	3.00	3.19	L
Public Works	13	Shiloh Line		Bridge	Rigid Frame	Deck & Surface	1990	40	16	40	16	24	119,760	68,862	50,898	232,341	2.94	1.06	3.00	3.19	L
Public Works	13	Shiloh Line		Bridge	Rigid Frame	Guiderails	1990	30	6	30	6	24	16,963	13,005	3,958	32,910	2.94	1.06	3.00	3.19	L
Public Works	14	Argyl Road	Walsh Bridge	Bridge	I-Beam	Earth work, abutm'ts & piers	1935	80	1	80	1	79	7,325	7,142	183	248,354	1.72	2.28	3.00	6.84	M
Public Works	14	Argyl Road	Walsh Bridge	Bridge	I-Beam	Super - Structure	1935	40	0	40	0	79	3,581	3,581	-	121,418	1.72	2.28	3.00	6.84	M
Public Works	14	Argyl Road	Walsh Bridge	Bridge	I-Beam	Deck & Surface	1935	40	0	40	0	79	5,371	5,371	-	182,126	1.72	2.28	3.00	6.84	M
Public Works	14	Argyl Road	Walsh Bridge	Bridge	I-Beam	Structure Betterments	1935	30	0	30	0	79	6,000	4,800	1,200	203,442	1.72	2.28	3.00	6.84	M
Public Works	15	Shiloh Line		Bridge	I-Beam	Earth work, abutm'ts & piers	1971	80	37	80	37	43	97,196	51,028	46,168	695,376	3.43	0.57	3.00	1.71	L
Public Works	15	Shiloh Line		Bridge	I-Beam	Super - Structure	1971	40	0	40	0	43	47,518	47,518	-	339,961	3.43	0.57	3.00	1.71	L
Public Works	15	Shiloh Line		Bridge	I-Beam	Deck & Surface	1971	40	0	40	0	43	71,277	71,277	-	509,942	3.43	0.57	3.00	1.71	L
Public Works	15	Shiloh Line		Bridge	I-Beam	Guiderails	1971	30	0	30	0	43	4,529	4,529	-	32,401	3.43	0.57	3.00	1.71	L
Public Works	17	Cameron Road	Dolbear Bridge	Bridge	Dolbear Bridge	Earth work, abutm'ts & piers	1930	80	0	80	0	84	17,938	17,938	-	528,136	3.17	0.83	3.00	2.48	L
Public Works	17	Cameron Road	Dolbear Bridge	Bridge	Dolbear Bridge	Super - Structure	1930	40	0	40	0	84	8,770	8,770	-	258,200	3.17	0.83	3.00	2.48	L
Public Works	17	Cameron Road	Dolbear Bridge	Bridge	Dolbear Bridge	Deck & Surface	1930	40	0	40	0	84	13,155	13,155	-	387,300	3.17	0.83	3.00	2.48	L
Public Works	17	Cameron Road	Dolbear Bridge	Bridge	Dolbear Bridge	Guiderails	1930	30	0	30	0	84	1,976	1,976	-	58,190	3.17	0.83	3.00	2.48	L
Public Works	17	Cameron Road	Dolbear Bridge	Bridge	Dolbear Bridge	Structure Betterments	2008	15	9	15	9	6	178,249	71,299	106,949	189,046	3.17	0.83	3.00	2.48	L
Public Works	37	Old Walnut Road	Brown's Creek Bridge	Bridge	Rigid Frame	Earth work, abutm'ts & piers	1994	80	60	80	60	20	175,546	41,692	133,854	346,415	4.00	0.00	3.00	0.00	L
Public Works	37	Old Walnut Road	Brown's Creek Bridge	Bridge	Rigid Frame	Super - Structure	1994	40	20	40	20	20	85,822	40,766	45,057	169,359	4.00	0.00	3.00	0.00	L
Public Works	37	Old Walnut Road	Brown's Creek Bridge	Bridge	Rigid Frame	Deck & Surface	1994	40	20	40	20	20	128,734	61,148	67,585	254,038	4.00	0.00	3.00	0.00	L
Public Works	38	LaSalle Line		Bridge	I-Beam	Earth work, abutm'ts & piers	1966	80	32	80	32	48	41,392	24,318	17,074	414,749	3.05	0.95	3.00	2.85	L
Public Works	38	LaSalle Line		Bridge	I-Beam	Super - Structure	1966	40	0	40	0	48	20,236	20,236	-	202,766	3.05	0.95	3.00	2.85	L
Public Works	38	LaSalle Line		Bridge	I-Beam	Deck & Surface	1966	40	0	40	0	48	30,354	30,354	-	304,150	3.05	0.95	3.00	2.85	L
Public Works	38	LaSalle Line		Bridge	I-Beam	Structure Betterments	1966	30	0	30	0	48	31,561	7,364	24,197	316,245	3.05	0.95	3.00	2.85	L
Public Works	1	LaSalle Line		Culvert	Arch Culvert, Steel	Structure	1977	50	13	50	13	37	31,773	22,877	8,896	156,107	3.00	1.00	3.00	3.00	L
Public Works	2	White Pine Road		Culvert	Arch Culvert, Steel	Structure	1985	50	21	50	21	29	60,311	33,774	26,537	162,582	2.80	1.20	3.00	3.60	L
Public Works	5	Petrolia Line		Culvert	Arch Culvert, Steel	Structure	1976	50	12	50	12	38	132,294	97,898	34,397	649,993	2.56	1.44	3.00	4.32	M
Public Works	7	Rokeby Line		Culvert	Arch Culvert, Steel	Structure	1975	50	11	50	11	39	25,324	19,247	6,078	120,928	2.52	1.48	3.00	4.44	M
Public Works	10	Gully Mor Road		Culvert	Arch Culvert, Steel	Structure	1980	50	16	50	16	34	30,948	20,426	10,523	116,212	3.00	1.00	3.00	3.00	L
Public Works	11	Gully Mor Road		Culvert	Arch Culvert, Steel	Structure	1980	50	16	50	16	34	50,501	33,330	17,170	189,633	3.10	0.90	3.00	2.70	L
Public Works	12	Maple Ridge Line		Culvert	Rectangular Culvert, Concrete	Structure	1990	80	56	80	56	24	83,297	23,948	59,349	161,601	4.00	0.00	3.00	0.00	L
Public Works	16	Brooke Line		Culvert	Rectangular Culvert, Concrete	Structure	1955	80	21	80	21	59	8,695	6,304	2,391	124,920	3.00	1.00	3.00	3.00	L
Public Works	18	Old Walnut Road		Culvert	Arch Culvert, Steel	Structure	1980	50	16	50	16	34	49,394	32,600	16,794	185,477	2.80	1.20	3.00	3.60	L
Public Works	19	Fields Line		Culvert	Round Culvert, Steel	Structure	1987	50	23	50	23	27	136,907	71,192	65,715	312,789	4.00	0.00	3.00	0.00	L
Public Works	19	Fields Line		Culvert	Round Culvert, Steel	Guiderails	1987	30	3	30	3	27	14,817	12,841	1,976	33,852	4.00	0.00	3.00	0.00	L
Public Works	20	Aberfeldy Line		Culvert	Round Culvert, Steel	Structure	1991	50	27	50	27	23	145,855	64,176	81,679	295,840	3.54	0.46	3.00	1.38	L
Public Works	21	Sutorville Road		Culvert	Arch Culvert, Steel	Structure	1980	50	16	50	16	34	55,658	36,734	18,924	208,998	3.00	1.00	3.00	3.00	L
Public Works	22			Culvert	Arch Culvert, Steel	Structure	1980	50	16	50	16	34	77,738	51,307	26,431	291,912	2.60	1.40	3.00	4.20	M
Public Works	23	Oil Springs Line		Culvert	Arch Culvert, Steel	Structure	1987	50	23	50	23	27	79,054	41,108	37,946	180,613	3.00	1.00	3.00	3.00	L
Public Works	24	Oil Springs Line		Culvert	Arch Culvert, Steel	Structure	1980	50	16	50	16	34	70,053	46,235	23,818	263,054	3.00	1.00	3.00	3.00	L
Public Works	25	Little Ireland Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	32,605	28,040	4,565	253,553	2.20	1.80	3.00	5.40	M
Public Works	26	Little Ireland Road		Culvert	Rectangular Culvert, Concrete	Structure	1955	80	21	80	21	59	10,682	7,745	2,937	153,461	2.46	1.54	3.00	4.62	M
Public Works	27	Old Walnut Road		Culvert	Arch Culvert, Steel	Structure	1978	50	14	50	14	36	63,057	44,140	18,917	290,230	2.80	1.20	3.00	3.60	L
Public Works	28	Rail Road Line		Culvert	Rectangular Culvert, Concrete	Structure	1950	80	16	80	16	64	6,947	5,471	1,476	124,258	2.82	1.18	3.00	3.54	L
Public Works	29	Shiloh Road		Culvert	Rectangular Culvert, Concrete	Structure	1950	80	16	80	16	64	136,607	5,123	131,485	2,443,348	2.90	1.10	3.00	3.30	L
Public Works	30	Shiloh Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	23,714	20,394	3,320	184,415	2.70	1.30	3.00	3.90	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Bridges and Culverts

Asset Description							Asset Age and Useful Life						Financial Information				Condition Rating (Based on 2009 Study) (1 to 4)	Probability of Failure	Consequence of Failure	Risk of Failure	Risk of Failure
Department	Asset ID	Location	Name/Details	Bridge / Culvert	Asset Description	Component	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
Public Works	31	Weidman Line		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	16,017	13,774	2,242	124,553	2.90	1.10	3.00	3.30	L
Public Works	32	Rokeby Line		Culvert	Round Culvert, Steel	Structure	1970	50	6	50	6	44	16,110	13,854	2,255	125,276	3.59	0.41	3.00	1.23	L
Public Works	33	Sutorville Road		Culvert	Arch Culvert, Steel	Structure	1988	50	24	50	24	26	73,800	36,900	36,900	156,371	2.00	2.00	3.00	6.00	M
Public Works	34	Shiloh Line		Culvert	Rectangular Culvert, Concrete	Structure	2004	80	70	80	70	10	174,180	19,595	154,585	242,734	3.00	1.00	3.00	3.00	L
Public Works	35	Little Ireland Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	19,302	16,600	2,702	150,105	2.67	1.33	3.00	3.99	L
Public Works	36	Little Ireland Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	20,150	17,329	2,821	156,696	3.00	1.00	3.00	3.00	L
Public Works	39	Little Ireland Road		Culvert	Rectangular Culvert, Concrete	Structure	1950	80	16	80	16	64	7,654	6,027	1,626	136,891	2.80	1.20	3.00	3.60	L
Public Works	40	Little Ireland Road		Culvert	Arch Culvert, Steel	Structure	1950	50	0	50	0	64	9,242	9,242	-	165,293	3.00	1.00	3.00	3.00	L
Public Works	41	Sutorville Road		Culvert	Rectangular Culvert, Concrete	Structure Betterments	1950	80	16	80	16	64	23,054	1,153	21,901	412,342	2.22	1.78	3.00	5.34	M
Public Works	42	Sutorville Road		Culvert	Rectangular Culvert, Concrete	Structure	1950	80	16	80	16	64	8,617	6,786	1,831	154,131	3.00	1.00	3.00	3.00	L
Public Works	43	Sutorville Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	18,861	16,220	2,641	146,674	3.00	1.00	3.00	3.00	L
Public Works	44	Sutorville Road		Culvert	Rectangular Culvert, Concrete	Structure	1970	80	36	80	36	44	12,336	6,631	5,706	95,932	2.82	1.18	3.00	3.54	L
Public Works	45	Sutorville Road		Culvert	Arch Culvert, Steel	Structure	1990	50	26	50	26	24	61,431	28,258	33,173	119,180	3.00	1.00	3.00	3.00	L
Public Works	46	Inwood Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	19,018	16,355	2,662	147,893	2.90	1.10	3.00	3.30	L
Public Works	47	Inwood Road		Culvert	Arch Culvert, Steel	Structure	1970	50	6	50	6	44	22,431	19,291	3,140	174,438	2.90	1.10	3.00	3.30	L
Public Works	48	LaSalle Line		Culvert	Rectangular Culvert, Concrete	Structure	1950	80	16	80	16	64	38,529	30,341	8,188	689,127	3.00	1.00	3.00	3.00	L
Public Works	49	Inwood Road		Culvert	Circular Culvert, Steel	Structure	1990	50	26	50	26	24	45,992	21,157	24,836	89,228	3.80	0.20	3.00	0.60	L
Public Works	50	Inwood Road		Culvert	Rectangular Culvert	Structure	2012	80	78	80	78	2	39,192	980	38,213	39,865	4.00	0.00	3.00	0.00	L
Public Works	50	Inwood Road		Culvert	Rectangular Culvert	Structure	2012	30	28	30	28	2	7,007	234	6,773	7,127	4.00	0.00	3.00	0.00	L

WATER CAPITAL ASSETS

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Water Facilities, Machinery and Equipment

FACILITIES

Asset Description				Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
															5	5	25	
										$ 1,112,434	$ 571,924	$ 540,510	$ 6,003,498					
Water	I-2220-0830-0100	WATER TOWER UPGRADES	LORNE STREET	2005	20	11	20	11	9	93,458	42,056	51,402	-	3	2	4	8	M
Water		WATER TREATMENT PLANT - Resevoir	CHURCH STREET	1975	75	36	75	36	39	838,400	435,968	402,432	4,003,498	2	3	4	12	M
Water		WATER TOWER	LORNE STREET	1975	75	36	50	11	39	180,576	93,900	86,676	2,000,000	1	4	4	16	H
		Water Tower - Structural		1975	75	36	50	11	39				1,707,168	1	4	4	16	H
		Water Tower - Electrical and Instrumental		2005	75	66	20	11	9				78,671	3	2	4	8	M
		Water Tower - Mechanical and Process Equipment		2005	75	66	30	21	9				104,895	4	1	4	4	L
		Water Tower - Siteworks		1975	75	36	50	11	39				109,266	1	4	4	16	H

MACHINERY AND EQUIPMENT

Asset Description				Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
															5	5	25	
										$ 29,899	$ 18,137	$ 11,762	$ 34,854					
Water	I-2230-0831-0001	HIGH LIFT PUMP REPAIRS	CHURCH STREET	2006	10	2	10	2	8	9,087	7,269	1,817	10,616	1	4	2	8	M
Water		WATER PLANT HEATER	CHURCH STREET	2007	10	3	10	3	7	2,214	1,549	664	2,538	2	3	2	6	L
Water		LIFTING DEVICES	CHURCH STREET	2008	10	4	10	4	6	6,324	3,794	2,530	7,127	2	3	2	6	L
Water		COMMUNICATIONS EQUIP TOWER	LORNE STREET	2005	20	11	20	11	9	12,275	5,524	6,751	14,573	3	2	2	4	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Water Mains

Asset Description									Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Total Probability of Failure	Consequence of Failure (Based on Pipe Size)	Numerical Risk of Failure	Risk of Failure
Department	ID Number	Road Reference ID	Street	From	To	Diameter (mm)	Length (m)	Pipe Material	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
															$ 3,922,861	$ 887,897	$ 3,034,964	$ 9,870,693		5	10	50	
Water	66	2036.1	CENTRE STREET	Church	River St	150	102.01	PVC	1975	75	36	75	36	39	16,643	8,432	8,211	79,473	2	3	4	12	L
Water	48	2037	CENTRE STREET	River St	Elgin St	150	113.01	PVC	1975	75	36	75	36	39	18,437	9,341	9,096	88,040	2	3	4	12	L
Water	49	2038	CENTRE STREET	Elgin St	Walnut	150	107.02	PVC	1975	75	36	75	36	39	17,460	8,846	8,614	83,374	2	3	4	12	L
Water	50	2039	CENTRE STREET	Walnut	Henry St	150	136.00	PVC	1975	75	36	75	36	39	22,188	11,242	10,946	105,951	2	3	4	12	L
Water	51	2040	CENTRE STREET	Henry	Lovell St	150	103.01	PVC	1975	75	36	75	36	39	16,806	8,515	8,291	80,251	2	3	4	12	L
Water	52	2041	CENTRE STREET	Lovell St	Hwy 79	150	159.99	PVC	1975	75	36	75	36	39	26,103	13,226	12,877	124,646	2	3	4	12	L
Water	2	2033	CHURCH STREET	Railroad Line	Centre St	150	139.29	PVC	1975	75	36	75	36	39	22,726	11,515	11,211	108,520	2	3	4	12	L
Water	1	2034	CHURCH STREET	Centre St	Sydenham	150	81.00	PVC	1975	75	36	75	36	39	13,215	6,696	6,519	63,104	2	3	4	12	L
Water	3	3015	CHURCH STREET	Water Treatment Plant	Railroad Line	150	96.50	PVC	1975	75	36	75	36	39	15,744	7,977	7,767	75,180	2	3	4	12	L
Water	15	2014	ELGIN STREET	Railroad Line	Centre St	150	150.01	PVC	1975	75	36	75	36	39	24,475	12,401	12,074	116,872	2	3	4	12	L
Water	16	2015	ELGIN STREET	Centre St	Lorne St	150	163.99	PVC	1975	75	36	75	36	39	26,755	13,556	13,199	127,760	2	3	4	12	L
Water	17	2016	ELGIN STREET	Lorne	Wallace St	150	153.03	PVC	1975	75	36	75	36	39	24,967	12,650	12,317	119,222	2	3	4	12	L
Water	60	2017	ELGIN STREET	Wallace St	Dead End	50	30.00	PVC	1995	75	56	75	56	19	6,595	1,583	5,012	12,622	4	1	2	2	L
Water	61	2017	ELGIN STREET	Wallace St	Dead End	150	195.01	PVC	1975	75	36	75	36	39	31,817	16,121	15,696	151,931	2	3	4	12	L
Water	18	2017	ELGIN STREET	Wallace St	Dead End	150	207.50	PVC	1975	75	36	75	36	39	33,854	17,153	16,701	161,658	2	3	4	12	L
Water	34	2023	ELM STREET	Dead End	Centre St	150	79.00	PVC	1975	75	36	75	36	39	12,889	6,530	6,359	61,547	2	3	4	12	L
Water	33	2024	ELM STREET	Centre St	Railroad Line	150	146.02	PVC	1975	75	36	75	36	39	23,824	12,071	11,753	113,764	2	3	4	12	L
Water	37	2054	FRANCIS STREET	River St	Broadway St	150	227.15	PVC	1975	75	36	75	36	39	37,060	18,777	18,283	176,968	2	3	4	12	L
Water	38	2055	FRANCIS STREET	Broadway	Dead End	150	109.00	PVC	1975	75	36	75	36	39	17,783	9,010	8,773	84,917	2	3	4	12	L
Water	25	2019	HENRY STREET	Lorne	Centre St	200	161.99	PVC	1975	75	36	75	36	39	28,462	14,421	14,041	135,911	2	3	6	18	M
Water	24	2020	HENRY STREET	Centre St	Railroad Line	200	150.00	PVC	1975	75	36	75	36	39	26,355	13,353	13,002	125,849	2	3	6	18	M
Water	28	3016	HWY 79	South of Millpond	Millpond	150	204.00	PVC	1975	75	36	75	36	39	33,283	16,863	16,420	158,932	2	3	4	12	L
Water	29	3017	HWY 79	Millpond	Railroad Line	150	196.00	PVC	1975	75	36	75	36	39	31,977	16,202	15,775	152,695	2	3	4	12	L
Water	30	3018	HWY 79	Railroad Line	Centre St	150	146.00	PVC	1975	75	36	75	36	39	23,820	12,069	11,751	113,744	2	3	4	12	L
Water	31	3019	HWY 79	Centre St	Lorne	150	164.00	PVC	1975	75	36	75	36	39	26,757	13,557	13,200	127,769	2	3	4	12	L
Water	32	3020	HWY 79	Lorne	Shiloh	150	65.00	PVC	1975	75	36	75	36	39	10,605	5,373	5,232	50,641	2	3	4	12	L
Water	35	2056	LISGAR STREET	River St	Broadway St	100	63.00	PVC	2013	75	74	75	74	1	9,646	4,887	4,759	9,773	5	1	4	4	L
Water	36	2056	LISGAR STREET	River St	Broadway St	150	226.00	PVC	1975	75	36	75	36	39	36,872	18,682	18,190	176,070	2	3	4	12	L
Water	58	2044	LORNE STREET	Hwy 79	Lovell St	150	159.00	PVC	1975	75	36	75	36	39	25,942	13,144	12,798	123,877	2	3	4	12	L
Water	56	2045	LORNE STREET	Lovell St	Henry	150	64.60	PVC	1975	75	36	75	36	39	10,539	5,340	5,199	50,325	2	3	4	12	L
Water	57	2045	LORNE STREET	Lovell St	Henry	200	30.50	PVC	1975	75	36	75	36	39	5,359	2,715	2,644	25,590	2	3	6	18	M
Water	55	2046	LORNE STREET	Henry	Walnut	150	138.02	PVC	1975	75	36	75	36	39	22,517	11,409	11,108	107,522	2	3	4	12	L
Water	54	2047	LORNE STREET	Walnut	Elgin St	150	105.01	PVC	1975	75	36	75	36	39	17,132	8,680	8,452	81,808	2	3	4	12	L
Water	53	2048	LORNE STREET	Elgin St	River St	150	115.00	PVC	1975	75	36	75	36	39	18,762	9,506	9,256	89,592	2	3	4	12	L
Water	46	2025	RAILROAD LINE	West Town Limits	Elm St	150	194.00	PVC	1975	75	36	75	36	39	31,651	16,037	15,614	151,139	2	3	4	12	L
Water	45	2026	RAILROAD LINE	Elm St	Hwy 79	150	117.01	PVC	1975	75	36	75	36	39	19,089	9,672	9,417	91,153	2	3	4	12	L
Water	44	2027	RAILROAD LINE	Hwy 79	Lovell St	150	160.01	PVC	1975	75	36	75	36	39	26,105	13,227	12,878	124,656	2	3	4	12	L
Water	43	2028	RAILROAD LINE	Lovell St	Henry	150	110.00	PVC	1975	75	36	75	36	39	17,947	9,093	8,854	85,700	2	3	4	12	L
Water	42	2029	RAILROAD LINE	Henry	Walnut	200	136.01	PVC	1975	75	36	75	36	39	23,896	12,107	11,789	114,107	2	3	6	18	M
Water	41	2030	RAILROAD LINE	Walnut	Elgin St	200	108.01	PVC	1975	75	36	75	36	39	18,977	9,615	9,362	90,618	2	3	6	18	M
Water	40	2031	RAILROAD LINE	Elgin St	River St	200	113.00	PVC	1975	75	36	75	36	39	19,854	10,059	9,795	94,806	2	3	6	18	M
Water	39	2032	RAILROAD LINE	River St	Church St	150	100.01	PVC	1975	75	36	75	36	39	16,317	8,267	8,050	77,916	2	3	4	12	L
Water	5	2000	RIVER STREET	Courtright Line	Lisgar St	150	70.00	PVC	2013	75	74	75	74	1	132,458	1,766	130,692	134,200	5	1	4	4	L
Water	4	2000	RIVER STREET	Courtright Line	Lisgar St	200	307.80	PVC	1975	75	36	75	36	39	54,080	27,401	26,679	258,241	2	3	6	18	M
Water	6	2001	RIVER STREET	Lisgar	Francis	150	121.71	PVC	2013	75	74	75	74	1	230,300	3,071	227,229	233,328	5	1	4	4	L
Water	7	2002	RIVER STREET	Francis	Mill Pond	150	101.12	PVC	2013	75	74	75	74	1	191,348	2,551	188,796	193,864	5	1	4	4	L
Water	8	2003	RIVER STREET	Mill Pond	Railroad Line	150	47.50	PVC	2013	75	74	75	74	1	89,882	1,198	88,684	91,064	5	1	4	4	L
Water	9	2003	RIVER STREET	Mill Pond	Railroad Line	200	143.60	PVC	1975	75	36	75	36	39	25,231	12,784	12,447	120,482	2	3	6	18	M
Water	13	2006	RIVER STREET	Sydenham	Lorne St	150	77.99	PVC	1975	75	36	75	36	39	12,724	6,447	6,277	60,759	2	3	4	12	L
Water	12	2006	RIVER STREET	Sydenham	Lorne St	150	77.99	PVC	1975	75	36	75	36	39	12,724	6,447	6,277	60,759	2	3	4	12	L
Water	63	2006	RIVER STREET	Sydenham	Lorne St	150	77.99	PVC	1975	75	36	75	36	39	12,724	6,447	6,277	60,759	2	3	4	12	L
Water	65	2006.1	RIVER STREET	Lorne	Wallace St	150	151.02	PVC	1975	75	36	75	36	39	24,638	12,483	12,155	117,651	2	3	4	12	L
Water	14	2007	RIVER STREET	Wallace St	Shiloh	150	323.00	PVC	1975	75	36	75	36	39	52,697	26,700	25,997	251,637	2	3	4	12	L
Water	62	2036	SYDENHAM STREET	Church	River St	150	101.41	PVC	1975	75	36	75	36	39	16,544	8,382	8,162	79,000	2	3	4	12	L
Water	47	2036	SYDENHAM STREET	Church	River St	150	101.41	PVC	1975	75	36	75	36	39	16,544	8,382	8,162	79,000	2	3	4	12	L
Water	22	2010	WALNUT STREET	The Arena	Wallace St	150	207.50	PVC	1975	75	36	75	36	39	33,854	17,153	16,701	161,658	2	3	4	12	L
Water	21	2011	WALNUT STREET	Wallace St	Lorne St	150	155.01	PVC	1975	75	36	75	36	39	25,289	12,813	12,476	120,759	2	3	4	12	L
Water	20	2012	WALNUT STREET	Lorne	Centre St	150	163.01	PVC	1975	75	36	75	36	39	26,594	13,474	13,120	126,991	2	3	4	12	L
Water	19	2013	WALNUT STREET	Centre St	Railroad Line	150	151.00	PVC	1975	75	36	75	36	39	24,635	12,482	12,153	117,636	2	3	4	12	L
Water		LAWSS LINE	SOURCE	CHURCHILL LINE	ALVINSTON	250		PVC	2003	75	64	75	64	11	1,772,036	236,271	1,535,764	2,632,006	4	1	6	6	L
Water	59	2025	RAILROAD LINE	West Town Limits	Elm St	150	420.00	PVC	2006	75	67	75	67	8	46,734	4,985	41,749	57,969	4	1	4	4	L
Water			Co-op Main			250	475.00	PVC	1983	75	44	75	44	31				398,524	3	2	6	12	L
Water			BROOKE LINE			150		PVC	2009	75	70	75	70	5	73,750	4,917	68,833	79,740	5	1	4	4	L
Water			MILL POND LOOP			150		PVC	2013	75	74	75	74	1	52,331	698	51,633	53,019	5	1	4	4	L
Water			SILOH/RIVER			150		PVC	2013	75	74	75	74	1	84,539	1,127	83,412	85,650	5	1	4	4	L

WASTEWATER CAPITAL ASSETS

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Wastewater Land Improvements, Facilities, Machinery and Equipment

LAND IMPROVEMENTS

Asset Description						Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Enter Financial Stmt Category	Financial Statements Category	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
																	5	5	25	
												397,355	**28,229**	**369,126**	**429,630**					
Wastewater		ENTRANCE CHANGE	ALVINSTON PS SOUTH	2210	LAND IMPROVEMENTS	2009	20	15	20	15	5	985	246	739	1,065	4	1	2	2	L
Wastewater		SLUDGE STORAGE	WWTP ALVINSTON	2210	LAND IMPROVEMENTS	2009	75	70	75	70	5	387,873	25,858	362,015	419,378	5	1	4	4	L
Wastewater		FENCING		2210	LAND IMPROVEMENTS	2009	20	15	20	15	5	8,497	2,124	6,373	9,187	4	1	2	2	L

FACILITIES

Asset Description						Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Enter Financial Stmt Category	Financial Statements Category	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
																	5	5	25	
												1,039,741	**443,623**	**596,118**	**3,126,884**					
Wastewater	1-0000-0810-0004	WWTP	ALVINSTON	2220	BUILDINGS	1982	75	43	75	43	32	1,039,741	443,623	596,118	3,126,884	3	2	4	8	M
		Super Structure				1982	75	43	75	43	32				1,563,442	3	2	2	4	L
		Mechanical				1982	25	0	25	0	32				625,377	0	5	2	10	M
		Electrical				1982	20	0	20	0	32				312,688	0	5	0	0	L
		Instrumentation/HVAC				1982	20	0	20	0	32				312,688	0	5	3	15	H
		Pipes, Intake/Output pipes				1982	50	18	50	18	32				312,688	2	3	3	9	M

MACHINERY AND EQUIPMENT

Asset Description						Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Probability of Failure	Consequence of Failure	Numerical Risk of Failure	Risk of Failure
Department	Asset ID	Asset Description	Location	Enter Financial Stmt Category	Financial Statements Category	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated					
																	5	5	25	
												1,342,869	**628,238**	**714,631**	**1,844,506**					
Wastewater	I-2230-0810-0001	NEW BLOWER	WWTP ALVINSTON	2230	MACHINERY & EQUIPMENT	2006	5	0	10	2	8	6,237	6,237	-	7,287	1	4	4	16	H
Wastewater	I-2230-0810-0001	INSTALLATION OF NEW BLOWER	WWTP ALVINSTON	2230	MACHINERY & EQUIPMENT	2006	5	0	5	0	8	3,764	3,764	-	4,398	0	5		0	L
Wastewater	I-2230-0810-0002	CHLORINATION UPGRADE	WWTP ALVINSTON	2230	MACHINERY & EQUIPMENT	2005	10	1	10	1	9	33,170	29,853	3,317	39,380	1	4	2	8	M
Wastewater	01-0000-0810-0005	PUMPING STATION RIVER SOUTH	ALVINSTON	2230	MACHINERY & EQUIPMENT	1982	15	0	50	18	32	126,711	126,711	-	303,525	2	3	4	12	M
Wastewater	01-0000-0810-0006	PUMPING STATION RIVER NORTH	ALVINSTON	2230	MACHINERY & EQUIPMENT	1982	15	0	50	18	32	139,977	139,977	-	335,303	2	3	4	12	M
Wastewater	01-0000-0811-0001	PUMPING STATION HOLMES ST	INWOOD	2230	MACHINERY & EQUIPMENT	2009	15	10	50	45	5	406,933	135,644	271,289	454,937	5	1	4	4	L
Wastewater	01-0000-0810-0007	PS RIVER NORTH UPGRADES	ALVINSTON	2230	MACHINERY & EQUIPMENT	2009	15	10	15	10	5	210,787	70,262	140,525	235,653	3	2	2	4	L
Wastewater		UPGRADES, PUMPS, CONTROL PANEL, ELECTRICAL	ALVINSTON PS SOUTH	2230	MACHINERY & EQUIPMENT	2009	15	10	15	10	5	79,936	26,645	53,290	89,365	3	2	2	4	L
Wastewater		CLARIFIER REBUILD	WWTP ALVINSTON	2230	MACHINERY & EQUIPMENT	2009	25	20	25	20	5	201,554	40,311	161,243	225,331	4	1	2	2	L
Wastewater				2230	MACHINERY & EQUIPMENT	2009	15	10	15	10	5	120,921	40,307	80,614	135,186	3	2	2	4	L
Wastewater		EQUIP (HEATER, RECORDER)	WWTP ALVINSTON	2230	MACHINERY & EQUIPMENT	2009	5	0	5	0	5	5,624	5,624	-	6,287	0	5	2	10	M
Wastewater		ANNUNCIATOR PANEL	WWTP ALVINSTON	2230	MACHINERY & EQUIPMENT	2010	10	6	10	6	4	7,256	2,902	4,353	7,854	3	2	2	4	L

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Wastewater Mains (Gravity and Force)

Asset Description										Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Total Probability of Failure	Consequence of Failure			Numerical Risk of Failure	Risk of Failure
Department	Type	ID Number	Road Reference ID	Street	From	To	Diameter (mm)	Length (m)	Pipe Material	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated			Pipe Size	Gravity vs. Force Main	Total Consequence of Failure		
																					5	5	5	10	50	
																$ 3,736,141	$ 912,080	$ 2,824,061	$ 7,709,337							
WW Alvinston	Forcemains	2	2000	River Street	Treatment Facility	Lisgar St	200	1,244.72	PVC	1982	75	43	75	43	32	88,686	36,657	52,029	266,711	3	2	5	4	9	18	M
WW Alvinston	Forcemains	4	2001	River Street	Lisgar	Francis	200	121.71	PVC	1982	75	43	75	43	32	8,672	3,584	5,088	26,080	3	2	5	4	9	18	M
WW Alvinston	Forcemains	6	2002	River Street	Francis	Mill Pond	200	101.12	PVC	1982	75	43	75	43	32	7,205	2,978	4,227	21,668	3	2	5	4	9	18	M
WW Alvinston	Forcemains	8	2003	River Street	Mill Pond	Railroad Line P S	200	930.00	PVC	1982	75	43	75	43	32	66,263	27,389	38,874	199,277	3	2	5	4	9	18	M
WW Alvinston	Forcemains	15	2006	River Street	Sydenham	Lorne St	200	74.00	PVC	1982	75	43	75	43	32	5,273	2,180	3,093	15,858	3	2	5	4	9	18	M
WW Alvinston	Forcemains	16	2006.1	River Street	Lorne St	Wallace St	200	139.00	PVC	1982	75	43	75	43	32	9,904	4,094	5,810	29,785	3	2	5	4	9	18	M
WW Alvinston	Forcemains	17	2007	River Street	Wallace St	Pumping Station	200	385.50	PVC	1982	75	43	75	43	32	27,467	11,353	16,114	82,603	3	2	5	4	9	18	M
WW Alvinston	Forcemains		SCHOOL	Hwy 79	Brooke Line	Lorne St	150	67.00	PVC	2007	75	68	75	68	7	119,448	11,148	108,299	138,806	5	1	5	4	9	9	L
WW Alvinston	Forcemains	42	3023	River Street	River St	Pumping Station	200	85.00	PVC	1982	75	43	75	43	32	6,056	2,503	3,553	18,213	3	2	5	4	9	18	M
WW Inwood	Forcemains	94	3005	Mcnally Street	Queen St	Inwood Rd	150	122.02	PE	2009	75	70	75	70	5	4,656	310	4,346	5,035	5	1	5	4	9	9	L
WW Inwood	Forcemains	95	3033	Inwood Road	Park St	Atkinson	150	194.00	PE	2009	75	70	75	70	5	7,404	494	6,910	8,005	5	1	5	4	9	9	L
WW Inwood	Forcemains	96	3034	Inwood Road	Atkinson	James	150	860.00	PE	2009	75	70	75	70	5	32,820	2,188	30,632	35,486	5	1	5	4	9	9	L
WW Inwood	Forcemains	97	3035	Inwood Road	James	Holmes St	150	20.00	PE	2009	75	70	75	70	5	763	51	712	825	5	1	5	4	9	9	L
WW Inwood	Forcemains	98	1098	Shiloh Line	Sutorville	Inwood Rd	150	1,843.00	PE	2009	75	70	75	70	5	70,334	4,689	65,645	76,047	5	1	5	4	9	9	L
WW Inwood	Forcemains	99	1097	Shiloh Line	Little Ireland	Sutorville	150	1,715.75	PE	2009	75	70	75	70	5	65,477	4,365	61,112	70,796	5	1	5	4	9	9	L
WW Inwood	Forcemains	100	1096	Shiloh Line	Ebenezer Rd	Little Ireland	150	1,842.00	PE	2009	75	70	75	70	5	70,295	4,686	65,609	76,005	5	1	5	4	9	9	L
WW Inwood	Forcemains	101	1095	Shiloh Line	Old Walnut	Ebenezer Rd	150	1,845.01	PE	2009	75	70	75	70	5	70,410	4,694	65,716	76,129	5	1	5	4	9	9	L
WW Inwood	Forcemains	102	1094	Shiloh Line	Hwy 79	Old Walnut	150	1,844.04	PE	2009	75	70	75	70	5	70,373	4,692	65,682	76,089	5	1	5	4	9	9	L
WW Inwood	Forcemains	103	1093	Shiloh Line	Peak of Mosa Rd	Hwy 79	150	616.70	PE	2009	75	70	75	70	5	23,535	1,569	21,966	25,446	5	1	5	4	9	9	L
WW Inwood	Forcemains	104	3000	Holmes Street	Inwood Rd	Weidman	150	130.00	PE	2009	75	70	75	70	5	4,961	331	4,630	5,364	5	1	5	4	9	9	L
WW Inwood	Forcemains	105	1089	River Street	Shiloh Line	Pump Station	150	513.00	PE	2009	75	70	75	70	5	19,577	1,305	18,272	21,168	5	1	5	4	9	9	L
WW Alvinston	Gravity Mains	1	2000	River Street	Courtright Line	Lisgar St	200	379.00	PVC	1982	75	43	75	43	32	77,040	31,843	45,197	231,689	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	3	2001	River Street	Lisgar	Francis	200	121.71	PVC	1982	75	43	75	43	32	24,740	10,226	14,514	74,401	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	5	2002	River Street	Francis	Mill Pond	200	101.12	PVC	1982	75	43	75	43	32	20,555	8,496	12,059	61,817	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	7	2003	River Street	Mill Pond	Railroad Line	200	104.00	PVC	1982	75	43	75	43	32	21,140	8,738	12,402	63,577	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	9	2004	River Street	Railroad Line	Centre St	200	150.02	PVC	1982	75	43	75	43	32	30,495	12,604	17,890	91,708	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	11	2005	River Street	Centre St	Sydenham	200	88.03	PVC	1982	75	43	75	43	32	17,894	7,396	10,498	53,815	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	16	2007	River Street	Wallace St	Shiloh	200	379.00	PVC	1982	75	43	75	43	32	77,040	31,843	45,197	231,689	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	18	2034	Church Street	Centre St	Sydenham	200	39.00	PVC	1982	75	43	75	43	32	7,928	3,277	4,651	23,841	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	19	2033	Church Street	Railroad Line	Centre St	200	139.29	PVC	1982	75	43	75	43	32	28,315	11,703	16,611	85,152	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	20	2014	Elgin Street	Railroad Line	Centre St	200	150.01	PVC	1982	75	43	75	43	32	30,494	12,604	17,890	91,705	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	23	2015	Elgin Street	Centre St	Lorne St	200	163.99	PVC	1982	75	43	75	43	32	33,335	13,779	19,557	100,251	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	24	2016	Elgin Street	Lorne	Wallace St	200	153.03	PVC	1982	75	43	75	43	32	31,107	12,857	18,249	93,549	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	25	2017	Elgin Street	Wallace St	Dead End	200	183.00	PVC	1982	75	43	75	43	32	37,199	15,376	21,823	111,871	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	26	2013	Walnut Street	Centre St	Railroad Line	200	151.00	PVC	1982	75	43	75	43	32	30,693	12,687	18,007	92,306	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	27	2012	Walnut Street	Lorne	Centre St	200	163.01	PVC	1982	75	43	75	43	32	33,135	13,696	19,439	99,648	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	28	2011	Walnut Street	Wallace St	Lorne St	200	155.01	PVC	1982	75	43	75	43	32	31,508	13,023	18,485	94,757	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	29	2010	Walnut Street	The Arena	Wallace St	200	161.50	PVC	1982	75	43	75	43	32	32,829	13,569	19,259	98,727	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	30	2018	Morrell Street	Hwy 79	Lorne St	200	312.50	PVC	1982	75	43	75	43	32	63,523	26,256	37,267	191,036	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	31	2020	Henry Street	Centre St	Railroad Line	200	150.00	PVC	1982	75	43	75	43	32	30,491	12,603	17,888	91,696	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	32	2019	Henry Street	Lorne	Centre St	250	113.00	PVC	1982	75	43	75	43	32	22,970	9,494	13,476	69,079	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	33	2021	Lovell Street	Railroad Line	Centre St	200	148.03	PVC	1982	75	43	75	43	32	30,090	12,437	17,653	90,492	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	34	2022	Lovell Street	Centre St	Lorne St	200	162.99	PVC	1982	75	43	75	43	32	33,131	13,694	19,437	99,638	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	35	3016	Hwy 79	South of Millpond	Millpond	200	213.00	PVC	1982	75	43	75	43	32	43,297	17,896	25,401	130,210	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	36	3017	Hwy 79	Millpond	Railroad Line	200	194.00	PVC	1982	75	43	75	43	32	39,435	16,300	23,135	118,595	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	37	3018	Hwy 79	Railroad Line	Centre St	200	102.50	PVC	1982	75	43	75	43	32	20,835	8,612	12,223	62,660	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	38	3019	Hwy 79	Centre St	Lorne	200	164.50	PVC	1982	75	43	75	43	32	33,438	13,821	19,617	100,561	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	39	3020	Hwy 79	Lorne	Shiloh	200	57.50	PVC	1982	75	43	75	43	32	11,688	4,831	6,857	35,151	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	40	2024	Elm Street	Centre St	Railroad Line	200	146.02	PVC	1982	75	43	75	43	32	29,682	12,269	17,414	89,266	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	41	2023	Elm Street	Dead End	Centre St	200	87.50	PVC	1982	75	43	75	43	32	17,786	7,352	10,435	53,490	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	43	3021	Open Ditch	River St	Hwy 79	380	247.00	PVC	1982	75	43	75	43	32	50,208	20,753	29,456	150,995	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	44	3021	Open Ditch	River St	Hwy 79	300	378.50	PVC	1982	75	43	75	43	32	76,939	31,801	45,137	231,383	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	45	3022	Open Ditch	Open Ditch	Pumping Station	380	47.50	PVC	1982	75	43	75	43	32	9,655	3,991	5,665	29,037	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	46	2057	Broadway Street	Dead End	Lisgar St	200	302.00	PVC	1982	75	43	75	43	32	61,388	25,374	36,014	184,617	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	47	2058	Broadway Street	Lisgar	Francis	200	111.99	PVC	1982	75	43	75	43	32	22,765	9,409	13,355	68,461	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	48	2059	Broadway Street	Francis	Mill Pond	200	111.00	PVC	1982	75	43	75	43	32	22,564	9,326	13,237	67,857	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	49	3024	Broadway Street	Mill Pond	Open Ditch	200	74.00	PVC	1982	75	43	75	43	32	15,042	6,217	8,825	45,237	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	50	2056	Lisgar Street	River St	Broadway St	200	295.23	PVC	1982	75	43	75	43	32	60,012	24,805	35,207	180,478	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	51	2054	Francis Street	River St	Broadway St	200	227.15	PVC	1982	75	43	75	43	32	46,174	19,085	27,089	138,862	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	52	2055	Francis Street	Broadway	Dead End	200	98.00	PVC	1982	75	43	75	43	32	19,921	8,234	11,687	59,909	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	53	2032	Railroad Line	River St	Church St	200	100.01	PVC	1982	75	43	75	43	32	20,329	8,403	11,927	61,138	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	54	2031	Railroad Line	Elgin St	River St	200	67.00	PVC	1982	75	43	75	43	32	13,619	5,629	7,990	40,958	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	55	2031	Railroad Line	Elgin St	River St	250	52.00	PVC	1982	75	43	75	43	32	10,570	4,369	6,201	31,788	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	56	3025	Railroad Line	Railroad Line	Pumping Station	250	82.50	PVC	1982	75	43	75	43	32	16,770	6,932	9,838	50,434	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	57	2030	Railroad Line	Walnut	Elgin St	250	108.01	PVC	1982	75	43	75	43	32	21,955	9,075	12,880	66,026	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	58	2029	Railroad Line	Henry	Walnut	200	114.50	PVC	1982	75	43	75	43	32	23,275	9,620	13,655	69,996	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	59	2028	Railroad Line	Lovell St	Henry	200	110.00	PVC	1982	75	43	75	43	32	22,360	9,242	13,118	67,245	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	60	2027	Railroad Line	Hwy 79	Lovell St	200	160.01	PVC	1982	75	43	75	43	32	32,525	13,444	19,082	97,816	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	61	2026	Railroad Line	Elm St	Hwy 79	200	117.01	PVC	1982	75	43	75	43	32	23,784	9,831	13,953	71,527	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	62	2025	Railroad Line	West Town Limits	Elm St	200	137.00	PVC	1982	75	43	75	43	32	27,848	11,511	16,338	83,750	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	63	2036	Sydenham Street	Church	River St	200	54.50	PVC	1982	75	43	75	43	32	11,078	4,579	6,499	33,317	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	64	2037	Centre Street	River St	Elgin St	200	61.00	PVC	1982	75	43	75	43	32	12,400	5,125	7,274	37,290	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	65	2038	Centre Street	Elgin St	Walnut	200	73.50	PVC	1982	75	43	75	43	32	14,941	6,175	8,765	44,932	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	66	2039	Centre Street	Walnut	Henry St	200	77.00	PVC	1982	75	43	75	43	32	15,652	6,469	9,183	47,071	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	67	2040	Centre Street	Henry	Lovell St	200	71.00	PVC	1982	75	43	75	43	32	14,432	5,965	8,467	43,403	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	68	2041	Centre Street	Lovell St	Hwy 79	200	94.50	PVC	1982	75	43	75	43	32	19,209	7,940	11,269	57,769	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	70	2048	Lorne Street	Elgin St	River St	200	55.50	PVC	1982	75	43	75	43	32	11,282	4,663	6,619	33,928	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	71	2047	Lorne Street	Walnut	Elgin St	200	41.50	PVC	1982	75	43	75	43	32	8,436	3,487	4,949	25,370	3	2	5	2	7	14	M

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Wastewater Mains (Gravity and Force)

Asset Description										Asset Age and Useful Life						Financial Information				Condition Rating (Based on Age)	Total Probability of Failure	Consequence of Failure			Numerical Risk of Failure	Risk of Failure
Department	Type	ID Number	Road Reference ID	Street	From	To	Diameter (mm)	Length (m)	Pipe Material	In Service Date	Useful Life	Remaining Useful Life	AM Useful Life	AM Remaining Useful Life	Age	Historical Cost Dec. 31, 2013	Accumulated Amortization Dec. 31, 2013	Net Book Value Dec. 31, 2013	Replacement Cost (2014$) Inflated			Pipe Size	Gravity vs. Force Main	Total Consequence of Failure		
WW Alvinston	Gravity Mains	72	2046	Lorne Street	Henry	Walnut	200	70.00	PVC	1982	75	43	75	43	32	14,229	5,881	8,348	42,792	3	2	5	2	7	14	M
WW Alvinston	Gravity Mains	73	2025	Railroad Line	West Town Limits	Elm St	200	49.00	PVC	1994	75	55	75	55	20	21,997	5,573	16,424	43,408	4	1	5	2	7	7	L
WW Alvinston	Gravity Mains	74	2017	Elgin Street	Wallace St	Dead End	200	47.00	PVC	1995	75	56	75	56	19	21,554	5,173	16,381	41,250	4	1	5	2	7	7	L
WW Inwood	Gravity Mains	75	3033	Inwood Road	Park St	Atkinson	200	194.00	PVC	2009	75	70	75	70	5	59,800	3,987	55,813	64,657	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	76	3034	Inwood Road	Atkinson	James	200	860.00	PVC	2009	75	70	75	70	5	265,093	17,673	247,420	286,625	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	77	3035	Inwood Road	James	Holmes St	200	20.00	PVC	2009	75	70	75	70	5	6,165	411	5,754	6,666	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	78	3036	Inwood Road	Holmes St	Moore St	200	430.00	PVC	2009	75	70	75	70	5	132,547	8,836	123,710	143,313	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	79	3037	Inwood Road	Moore St	McNally St	200	258.00	PVC	2009	75	70	75	70	5	79,528	5,302	74,226	85,988	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	80	3008	Park Street	James	Atkinson	200	95.02	PVC	2009	75	70	75	70	5	29,289	1,953	27,336	31,668	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	81	3006	James Street	Inwood Rd	Park St	200	129.00	PVC	2009	75	70	75	70	5	39,765	2,651	37,114	42,995	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	82	3001	Moore Street	Inwood Rd	Queen St	200	121.00	PVC	2009	75	70	75	70	5	37,297	2,487	34,811	40,327	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	83	3003	Queen Street	Moore St	McNally St	200	257.04	PVC	2009	75	70	75	70	5	79,231	5,282	73,949	85,666	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	84	3038	Inwood Road	Shiloh	Park St	200	260.00	PVC	2009	75	70	75	70	5	80,144	5,343	74,801	86,654	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	85	3039	Inwood Road	McNally St	Courtright Line	200	190.00	PVC	2009	75	70	75	70	5	58,567	3,904	54,663	63,324	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	86	3009	Park Street	Atkinson	Inwood Rd	200	300.00	PVC	2009	75	70	75	70	5	92,474	6,165	86,309	99,986	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	87	3010	Atkinson Street	Inwood Rd	Park St	200	110.00	PVC	2009	75	70	75	70	5	33,907	2,261	31,647	36,661	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	88	1007	Weidman Line	Forest Rd	0.1 km west of Inwood Rd.	200	120.00	PVC	2009	75	70	75	70	5	36,990	2,466	34,524	39,994	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	89	3000	Holmes Street	Inwood Rd	Weidman	200	107.08	PVC	2009	75	70	75	70	5	33,008	2,201	30,807	35,689	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	90	3040	Holmes Street	Weidman	West Limits	200	23.00	PVC	2009	75	70	75	70	5	7,090	473	6,617	7,666	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	91	3007	James Street	Park St	Dead End	200	467.00	PVC	2009	75	70	75	70	5	143,952	9,597	134,355	155,644	5	1	5	2	7	7	L
WW Inwood	Gravity Mains	93	3002	Moore Street	Queen St	Dead End	200	120.00	PVC	2009	75	70	75	70	5	36,990	2,466	34,524	39,994	5	1	5	2	7	7	L

APPENDIX B
ASSET MANAGEMENT ASSUMPTIONS

APPENDIX B: ASSET MANAGEMENT PLAN ASSUMPTIONS

The following assumptions were made during the creation of the Municipality's asset management plan.

1. STATE OF LOCAL INFRASTRUCTURE
   a) All external reports and documentation containing data relating to capital assets including condition data, replacement cost, age, etc…, where available, have been utilized.
   b) For any applicable, water, wastewater or stormwater main assets, the value in the plan may exclude the cost of road reinstatement. It is recommended, where required, that staff for budgeting purposes, determine where the road reinstatement costs are to be funded.
   c) Indexing: When inflating an asset value to current replacement value, the Non-Residential Building Construction Price Index (NRBCPI) was used for Roads, Sidewalks, Water and Wastewater related assets. The Consumer Price Index (CPI) was used for Machinery and Equipment, Vehicles and Land Improvements.
   d) In order to establish an initial condition assessment for some assets, calculations were performed to link condition to asset age. This was done in order to establish condition ratings for this report and it is recommended that the Municipality follow the "Condition Assessment Guideline" shown in Appendix C in the future.

2. ASSET MANAGEMENT STRATEGY
   a) Capital inflation rate will be assumed to be 3% annually.
   b) Operating budget inflation rate will be assumed to be 2% annually.
   c) Regarding operating expenses included in the Municipality's current budget, it is assumed that they will increase at an operating inflation rate annually, unless staff have provided alternative impacts.
   d) When any existing debenture payments are complete (if applicable), annual budget savings created through removing these payments have been dedicated to capital.

3. FINANCING STRATEGY
   a) Taxation assessment growth is assumed to be 3.0% annually.
   b) Development charges rates are assumed to increase at 2% annually.
   c) Gas tax revenue has 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.
   d) Interest rate earned on a Capital Replacement Reserve Fund will be 2% annually.
   e) In the case where debt financing is needed, the model assumed debt terms of 20 years at 5% annual interest. For growth related debt, debt payments are shown as funded directly from the development charge reserve funds.

APPENDIX C
DATA VERIFICATION AND CONDITION ASSESSMENT GUIDELINE

APPENDIX C: DATA VERIFICATION AND CONDITION ASSESSMENT GUIDELINE

Municipality of Brooke-Alvinston
Data Verification and Condition Assessment Guideline

Data Verification

1. The main source of asset data updating and editing will be though the Municipality's PSAB 3150 compliance procedures.
2. Asset additions, disposals, betterments, and write-offs will be recorded based on the Municipality's PSAB 3150 Compliance Policies.
3. Verification of the correct treatment of asset revisions will be completed through frequent annual reviews by the Municipality's Treasurer as well as an annual review by the Municipality's external auditor.
4. During years in which condition assessments are not being performed, asset replacement cost will be determined based on a combination of inflating previous current values or thorough the use of the current year's historical invoice data. Where indices are being used, the Non-Residential Building Construction Price Index (NRBCPI) shall be used for construction related assets (i.e. roads related, storm, water, and facilities) and the Consumer Price Index (CPI) shall be used for all other assets (i.e. machinery & equipment, vehicles and land improvements).

Condition Assessment

1. Condition assessments shall be performed as outlined in Table C-1 below. Condition assessments shall be performed by qualified individuals (or companies) and shall include a review of the following:
    - Current asset condition (consistent with the rating format used within this report, unless Municipal staff stipulate a new 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.
    - Current asset replacement cost. This is to be based on replacing the asset under current legislation/requirements using the Municipality's specifications; and
    - Remaining service life, assuming current maintenance and usage levels.

The condition assessment process will continue to be guided by provincial legislation and environmental regulations. The provisions provided above are not intended to replace other required processes.

Table C-1

Condition Assessment Time Table

Asset Type	Frequency of Condition Assessment
Roads Related	Every 5 years, based on Minimum Maintenance Standards
Bridges and Culverts (greater than 3m)	Every 2 years, based on applicable legislation
Facilities	Every 5-10 years, with priority given to older buildings
Vehicles, Machinery and Equipment	Annually (typically by Municipal staff), part of maintenance program
Water, Wastewater, Storm Related	Every 5 years or more frequently based on applicable legislation and environmental regulations

APPENDIX D
LEVEL OF SERVICE IMPACT ANALYSIS

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Asset Management Strategy - Change in Level of Service

Figure D-1
Tax Supported Services

Departments	Description	Planned Actions	Impact (2014$)	Phase-in of Impact (in Current Year $)																		
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Expenditures																							
Operating Expenditures				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Government	Information Technology	Replacement	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
Public Works	Information Technology	Replacement	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures (Uninflated)			**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**	**2,500**

Total Operating Expenditures (Uninflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Uninflated)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Total Operating Expenditures (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Inflated)	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	3,461	3,564	3,671	3,781	3,895	4,012	4,132	4,256	4,384	4,515	

Planned Actions Summary	Impact (Inflated)																			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rehabilitation/Renewal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Replacement	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	3,461	3,564	3,671	3,781	3,895	4,012	4,132	4,256	4,384	4,515
Expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total (Inflated)	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	3,461	3,564	3,671	3,781	3,895	4,012	4,132	4,256	4,384	4,515

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Asset Management Strategy - Change in Level of Service

Figure D-2
Environmental Services - Water

Departments	Description	Planned Actions	Impact (2014$)	Phase-in of Impact (in Current Year $)																	
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Water Services																							
Expenditures																							
Operating Expenditures				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures (Uninflated)			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Total Operating Expenditures (Uninflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Uninflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenditures (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Planned Actions Summary	Impact (Inflated)																				
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rehabilitation/Renewal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Replacement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Asset Management Strategy - Change in Level of Service

Figure D-3
Environmental Services - Water

Departments	Description	Planned Actions	Impact (2014$)	Phase-in of Impact (in Current Year $)																	
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Wastewater Service																							
Expenditures																							
Operating Expenditures				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures (Uninflated)			-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Total Operating Expenditures (Uninflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Uninflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenditures (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Planned Actions Summary	Impact (Inflated)																				
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rehabilitation/Renewal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Replacement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX E
SCENARIO ANALYSIS – CAPITAL FORECASTS

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Scheduled Capital Replacement (Tax Supported Assets) - Inflated

Table E-1
Replacement Year Based on Scenario 1

Asset Type	Immediate Needs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL
Total Scheduled Capital - Inflated	**84,988,839**	**1,203,518**	**414,858**	**651,042**	**2,061,852**	**2,025,965**	**2,228,364**	**845,338**	**2,262,883**	**1,346,349**	**1,487,071**	**1,195,014**	**2,544,905**	**1,376,908**	**3,755,789**	**2,345,281**	**11,580,900**	**2,840,861**	**1,914,753**	**2,188,091**	**8,485,853**	**137,744,434**
Land Improvements	282,988	-	55,795	-	87,095	3,075	-	-	12,852	-	3,565	-	79,807	-	117,048	24,288	-	6,291	26,717	-	239,778	939,299
Facilities	26,264	-	5,275	-	-	44,770	-	6,115	-	41,091	413,919	46,248	76,684	-	2,199,330	77,543	163,128	373,928	6,683	33,147	47,435	3,561,560
Machinery and Equipment	670,161	157,152	119,685	95,943	425,214	490,454	45,466	150,366	252,333	65,209	531,222	153,272	109,851	109,588	140,852	687,087	131,187	269,444	361,548	73,895	1,553,647	6,593,573
Vehicles	479,507	20,893	-	19,492	338,255	-	226,508	305,324	-	317,547	-	-	698,184	29,788	810	375,374	-	396,683	70,008	36,508	388,828	3,703,711
Sidewalks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stormwater Mains	2,934,937	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,934,937
Bridges and Culverts	10,186,599	255,805	-	36,991	-	1,132,912	1,786,914	-	-	246,662	-	167,392	926,734	229,249	438,999	-	8,990,556	-	-	-	764,701	25,163,514
Road Surface	2,879,124	623,477	83,527	343,521	1,051,541	190,213	-	34,412	1,638,103	305,458	156,870	435,163	248,917	174,545	-	296,476	1,384,981	386,945	-	551,251	3,953,375	14,737,897
Road Base	67,529,259	146,192	150,578	155,095	159,748	164,540	169,476	349,121	359,595	370,383	381,494	392,939	404,727	833,738	858,750	884,513	911,048	1,407,570	1,449,797	1,493,291	1,538,089	80,109,943

Table E-2
Replacement Year Based on Scenario 2

Asset Type	Immediate Needs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL
Total Scheduled Capital - Inflated	**-**	**968,982**	**1,108,946**	**1,256,436**	**1,411,777**	**1,575,308**	**1,747,380**	**1,928,358**	**2,118,623**	**2,318,568**	**2,528,603**	**2,749,153**	**2,980,661**	**3,223,585**	**3,478,402**	**3,745,606**	**4,025,712**	**4,319,254**	**4,626,785**	**4,948,880**	**5,286,137**	**56,347,155**
Land Improvements	-	11,909	13,629	15,442	17,351	19,361	21,476	23,700	26,039	28,496	31,078	33,788	36,634	39,619	42,751	46,035	49,478	53,085	56,865	60,824	64,969	692,530
Facilities	-	122,585	140,292	158,951	178,603	199,291	221,060	243,956	268,026	293,321	319,892	347,794	377,082	407,814	440,051	473,855	509,291	546,427	585,332	626,080	668,747	7,128,450
Machinery and Equipment	-	82,649	94,587	107,167	120,416	134,365	149,041	164,478	180,706	197,761	215,675	234,487	254,233	274,953	296,688	319,479	343,370	368,408	394,638	422,111	450,877	4,806,088
Vehicles	-	50,342	57,613	65,276	73,346	81,842	90,782	100,184	110,069	120,457	131,368	142,827	154,854	167,475	180,713	194,595	209,148	224,398	240,375	257,109	274,631	2,927,403
Sidewalks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stormwater Mains	-	68,017	77,842	88,195	99,099	110,578	122,656	135,360	148,716	162,751	177,494	192,975	209,226	226,278	244,165	262,921	282,583	303,188	324,775	347,384	371,058	3,955,258
Bridges and Culverts	-	161,832	185,208	209,840	235,784	263,096	291,834	322,060	353,836	387,229	422,308	459,142	497,807	538,378	580,936	625,562	672,343	721,369	772,730	826,524	882,850	9,410,668
Road Surface	-	280,868	321,438	364,189	409,216	456,617	506,493	558,951	614,101	672,057	732,938	796,866	863,971	934,384	1,008,245	1,085,697	1,166,888	1,251,973	1,341,114	1,434,476	1,532,233	16,332,714
Road Base	-	190,780	218,337	247,376	277,961	310,158	344,037	379,669	417,130	456,497	497,850	541,274	586,855	634,683	684,853	737,463	792,612	850,407	910,956	974,372	1,040,774	11,094,044

Figure E-1
Tax Supported Assets
Scenario 1 - PSAB 3150 Asset Data

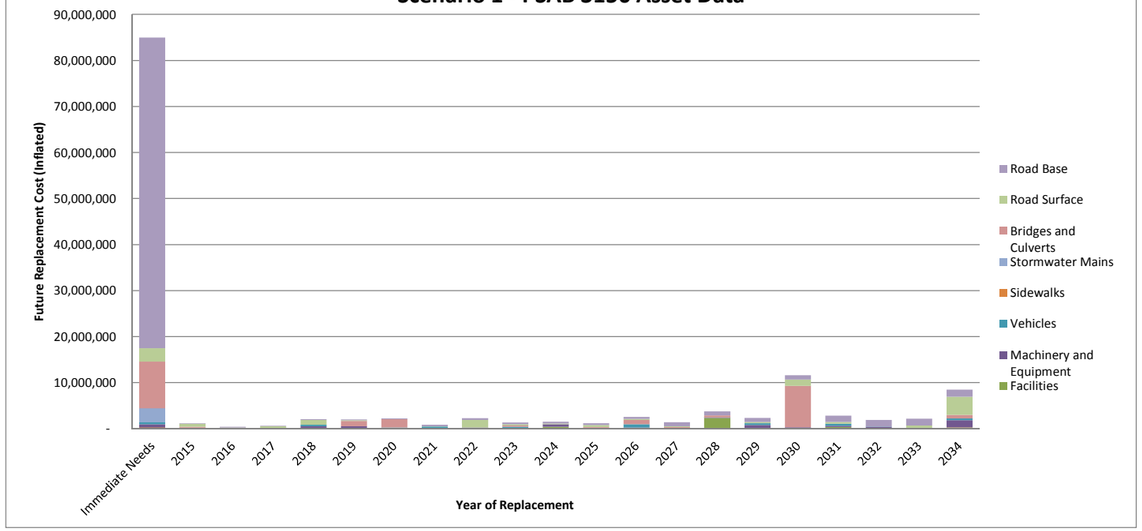
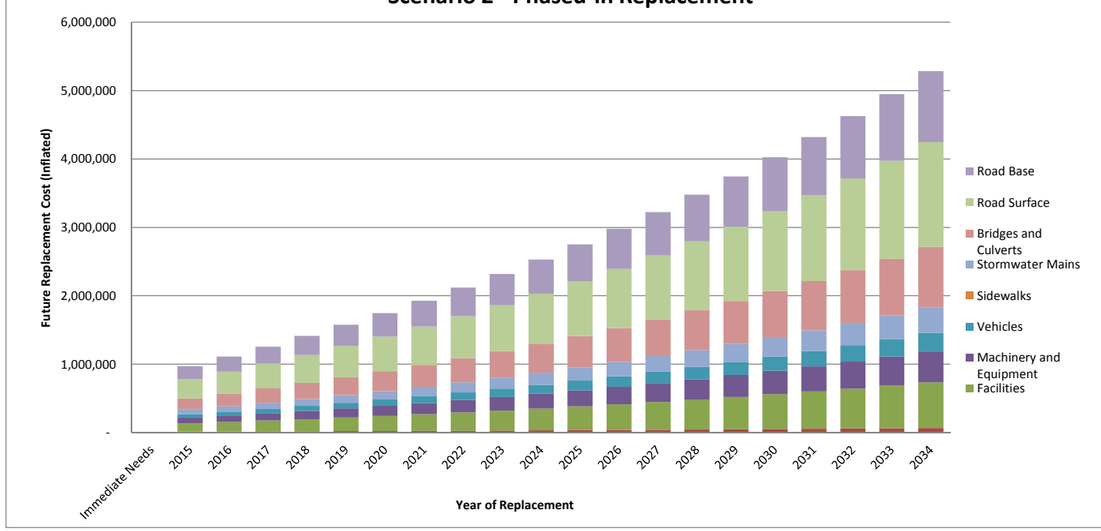


Figure E-2
Tax Supported Assets
Scenario 2 - Phased-in Replacement



Municipality of Brooke-Alvinston
2014 Asset Management Plan
Scheduled Capital Replacement (Water Assets) - Inflated

Table E-3
Replacement Year Based on Scenario 1

Asset Type	Immediate Needs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL
Total Scheduled Capital - Inflated	**-**	**-**	**11,263**	**2,773**	**8,021**	**-**	**-**	**-**	**-**	**-**	**-**	**20,173**	**15,136**	**3,726**	**10,780**	**-**	**-**	**-**	**-**	**-**	**-**	**71,872**
Water Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Machinery and Equipment	-	-	11,263	2,773	8,021	-	-	-	-	-	-	20,173	15,136	3,726	10,780	-	-	-	-	-	-	71,872
Water Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-4
Replacement Year Based on Scenario 2

Asset Type	Immediate Needs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL
Total Scheduled Capital - Inflated	**-**	**-**	**11,263**	**2,773**	**8,021**	**-**	**-**	**-**	**-**	**-**	**-**	**2,643,441**	**15,136**	**3,726**	**10,780**	**-**	**-**	**-**	**-**	**-**	**-**	**2,695,141**
Water Facilities	-	-	-	-	-	-	-	-	-	-	-	2,623,268	-	-	-	-	-	-	-	-	-	2,623,268
Water Machinery and Equipment	-	-	11,263	2,773	8,021	-	-	-	-	-	-	20,173	15,136	3,726	10,780	-	-	-	-	-	-	71,872
Water Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure E-3
Water Assets
Scenario 1 - PSAB 3150 Asset Data

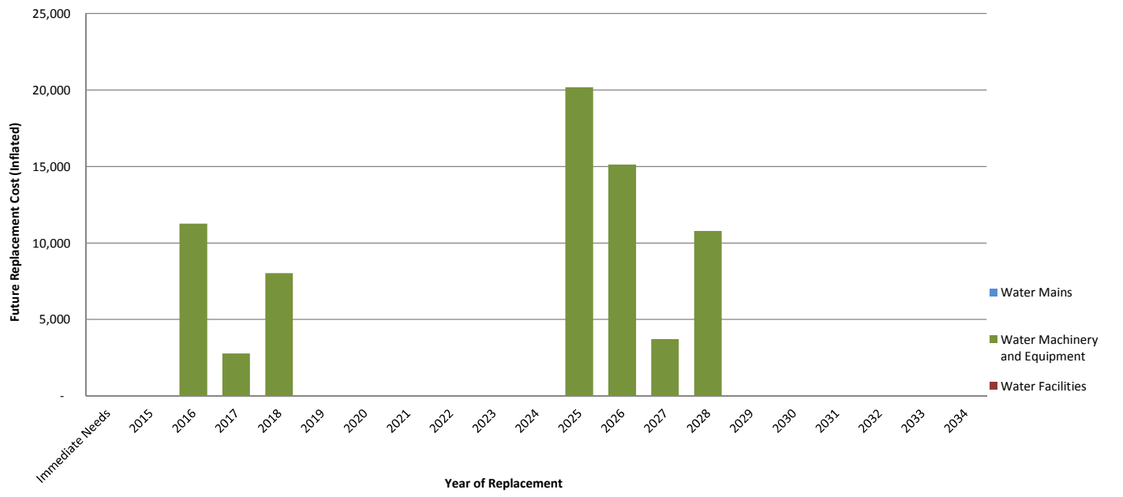
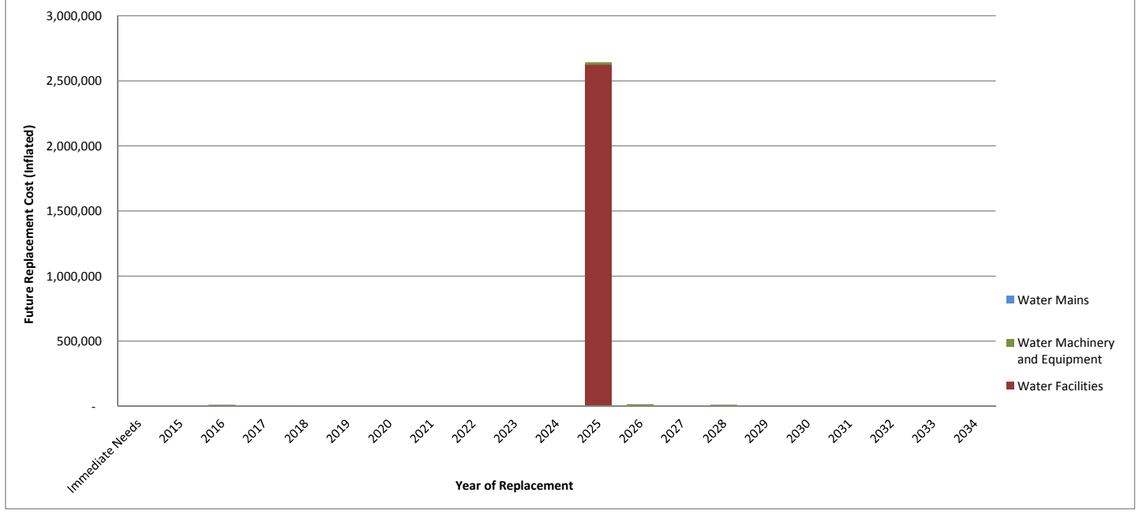


Figure E-4
Water Assets
Scenario 2 - Phased-in Replacement



Municipality of Brooke-Alvinston
2014 Asset Management Plan
Scheduled Capital Replacement (Wastewater Assets) - Inflated

Table E-5
Replacement Year Based on Scenario 1

Asset Type	Immediate Needs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL
Total Scheduled Capital - Inflated	**1,907,554**	**40,562**	**-**	**-**	**-**	**20,834**	**9,378**	**-**	**-**	**-**	**1,254,026**	**54,512**	**-**	**-**	**-**	**1,037,587**	**12,603**	**-**	**532,331**	**-**	**1,568,931**	**6,438,317**
Land Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,313	-	-	-	-	-	14,313
Facilities	1,250,753	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	532,331	-	1,129,500	2,912,584
Machinery and Equipment	656,800	40,562	-	-	-	20,834	9,378	-	-	-	1,254,026	54,512	-	-	-	1,023,273	12,603	-	-	-	439,431	3,511,419
Force and Gravity Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table E-6
Replacement Year Based on Scenario 2

Asset Type	Immediate Needs	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	TOTAL
Total Scheduled Capital - Inflated	**-**	**7,505**	**6,670**	**-**	**44,323**	**5,098**	**391,445**	**392,300**	**792,208**	**-**	**624,385**	**10,087**	**8,964**	**-**	**59,566**	**21,165**	**24,297**	**10,392**	**516,732**	**587,956**	**414,915**	**3,918,008**
Land Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,313	-	-	-	-	-	14,313
Facilities	-	-	-	-	-	-	373,366	384,567	792,208	-	-	-	-	-	-	-	-	-	-	-	-	1,550,142
Machinery and Equipment	-	7,505	6,670	-	44,323	5,098	18,079	7,733	-	-	624,385	10,087	8,964	-	59,566	6,851	24,297	10,392	516,732	587,956	414,915	2,353,553
Force and Gravity Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure E-5
Wastewater Assets
Scenario 1 - PSAB 3150 Asset Data

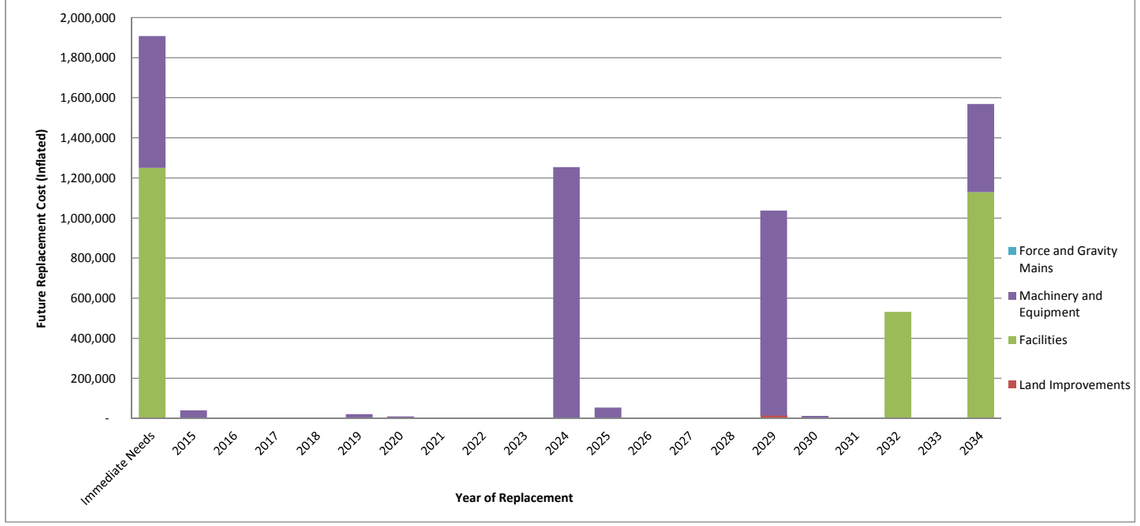
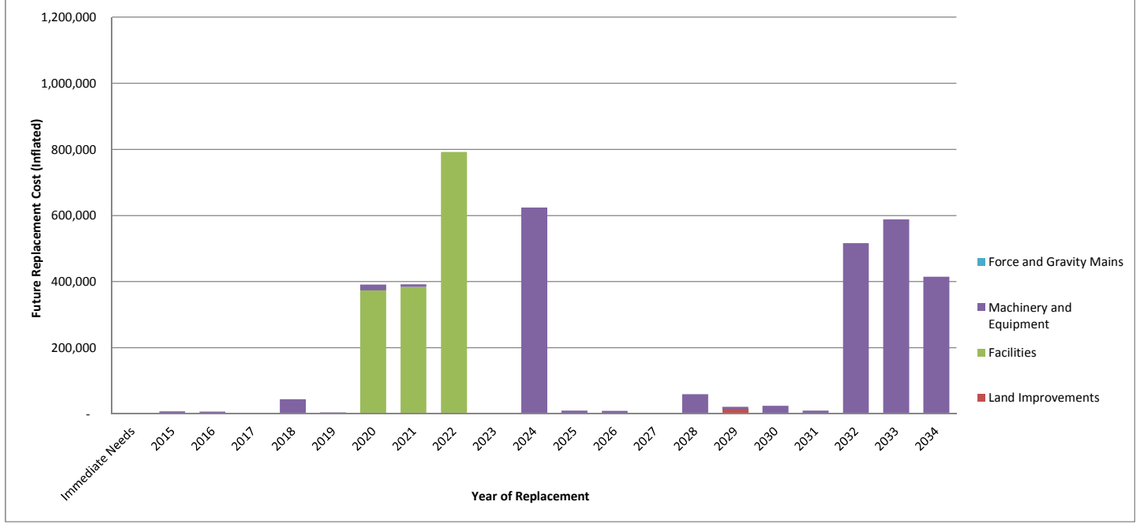


Figure E-6
Wastewater Assets
Scenario 2 - Phased in Replacement



APPENDIX F
TAX SUPPORTED ASSET MANAGEMENT STRATEGY & FINANCING STRATEGY

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Financing Strategy

Table F-1
Tax Supported Capital Forecast

Description	Actual 2012	Actual 2013	Budget 2014	Forecast 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Prior Capital Expenses																							
Administration	11,588	4,874	45,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Protection	71,846	64,015	85,244	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	352,147	579,765	557,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Health	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreation and Cultural	97,092	218,169	121,790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planning and Development	8,200	-	50,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other - Assist River St Project	-	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Replacement Forecast																							
Land Improvements				11,909	13,629	15,442	17,351	19,361	21,476	23,700	26,039	28,496	31,078	33,788	36,634	39,619	42,751	46,035	49,478	53,085	56,865	60,824	64,969
Facilities				122,585	140,292	158,951	178,603	199,291	221,060	243,956	268,026	293,321	319,892	347,794	377,082	407,814	440,051	473,855	509,291	546,427	585,332	626,080	668,747
Machinery and Equipment				82,649	94,587	107,167	120,416	134,365	149,041	164,478	180,706	197,761	215,675	234,487	254,233	274,953	296,688	319,479	343,370	368,408	394,638	422,111	450,877
Vehicles				50,342	57,613	65,276	73,346	81,842	90,782	100,184	110,069	120,457	131,368	142,827	154,854	167,475	180,713	194,595	209,148	224,398	240,375	257,109	274,631
Sidewalks				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stormwater Mains				68,017	77,842	88,195	99,099	110,578	122,656	135,360	148,716	162,751	177,494	192,975	209,226	226,278	244,165	262,921	282,583	303,188	324,775	347,384	371,058
Bridges and Culverts				161,832	185,208	209,840	235,784	263,096	291,834	322,060	353,836	387,229	422,308	459,142	497,807	538,378	580,936	625,562	672,343	721,369	772,730	826,524	882,850
Road Surface				280,868	321,438	364,189	409,216	456,617	506,493	558,951	614,101	672,057	732,938	796,866	863,971	934,384	1,008,245	1,085,697	1,166,888	1,251,973	1,341,114	1,434,476	1,532,233
Road Base				190,780	218,337	247,376	277,961	310,158	344,037	379,669	417,130	456,497	497,850	541,274	586,855	634,683	684,853	737,463	792,612	850,407	910,956	974,372	1,040,774
Level of Service Adjustments																							
Rehabiliation and Renewal Works				2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	3,461	3,564	3,671	3,781	3,895	4,012	4,132	4,256	4,384	4,515
Capital Expansion Forecast																							
Total Growth Related Projects				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	**540,873**	**926,823**	**859,034**	**971,557**	**1,111,598**	**1,259,167**	**1,414,591**	**1,578,206**	**1,750,365**	**1,931,433**	**2,121,790**	**2,321,830**	**2,531,963**	**2,752,614**	**2,984,225**	**3,227,256**	**3,482,183**	**3,749,501**	**4,029,724**	**4,323,386**	**4,631,041**	**4,953,264**	**5,290,652**
Capital Financing																							
Provincial/Federal Grants	-	73,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debentures	-	-	-	-	300,000	300,000	300,000	400,000	400,000	400,000	300,000	400,000	300,000	300,000	300,000	200,000	100,000	-	-	-	-	-	-
Reserve Fund: Gas Tax	-	150,615	-	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778	73,778
Reserve/Reserve Fund: Other	-	30,000	126,990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	50,840	22,927	28,325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating	490,033	649,756	703,719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital (Tax Supported)	-	-	-	897,778	737,820	885,389	1,040,812	1,104,427	1,276,586	1,457,655	1,748,012	1,848,052	2,158,184	2,378,836	2,610,447	2,953,478	3,308,405	3,675,723	3,955,946	4,249,608	4,557,262	4,879,485	5,216,874
Total Capital Financing	**540,873**	**926,823**	**859,034**	**971,557**	**1,111,598**	**1,259,167**	**1,414,591**	**1,578,206**	**1,750,365**	**1,931,433**	**2,121,790**	**2,321,830**	**2,531,963**	**2,752,614**	**2,984,225**	**3,227,256**	**3,482,183**	**3,749,501**	**4,029,724**	**4,323,386**	**4,631,041**	**4,953,264**	**5,290,652**
Total Capital Expenses less Capital Financing	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Table F-2
Debt Requirements

Non-Growth Related Debt Year	Principal (Inflated)	Forecast 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Budget 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	300,000			24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2017	300,000				24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2018	300,000					24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2019	400,000						32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097
2020	400,000							32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097
2021	400,000								32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097
2022	300,000									24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2023	400,000										32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097
2024	300,000											24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2025	300,000												24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2026	300,000													24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2027	200,000														16,049	16,049	16,049	16,049	16,049	16,049	16,049
2028	100,000															8,024	8,024	8,024	8,024	8,024	8,024
2029	-																-	-	-	-	-
2030	-																	-	-	-	-
2031	-																		-	-	-
2032	-																			-	-
2033	-																				-
2034	-																				-
Total Annual Non-Growth Related Debt Charges	**4,000,000**	-	-	24,073	48,146	72,218	104,315	136,412	168,509	192,582	224,679	248,752	272,825	296,898	312,946	320,970	320,970	320,970	320,970	320,970	320,970

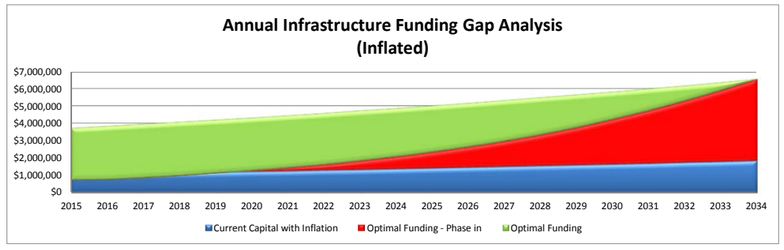
Municipality of Brooke-Alvinston
2014 Asset Management Plan
Financing Strategy
Table F-3
Reserve and Reserve Fund Continuity Schedule

Capital Reserve/Reserve Funds (Tax Supported)	Forecast																			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	861,548	718,923	753,456	746,363	703,655	734,685	739,516	728,235	610,172	608,295	527,279	492,442	522,849	538,271	569,273	649,669	918,411	1,410,273	2,163,821	3,222,196
Transfers From Operating	741,057	757,579	863,661	984,307	1,121,052	1,266,917	1,432,095	1,617,984	1,834,247	2,066,830	2,334,343	2,630,602	2,958,345	3,328,245	3,743,380	4,206,680	4,713,817	5,268,382	5,874,681	6,536,967
Transfer to Capital	897,778	737,820	885,389	1,040,812	1,104,427	1,276,586	1,457,655	1,748,012	1,848,052	2,158,184	2,378,836	2,610,447	2,953,478	3,308,405	3,675,723	3,955,946	4,249,608	4,557,262	4,879,485	5,216,874
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earned	14,097	14,774	14,635	13,797	14,406	14,500	14,279	11,964	11,927	10,339	9,656	10,252	10,554	11,162	12,739	18,008	27,652	42,428	63,180	90,846
Closing Balance	718,923	753,456	746,363	703,655	734,685	739,516	728,235	610,172	608,295	527,279	492,442	522,849	538,271	569,273	649,669	918,411	1,410,273	2,163,821	3,222,196	4,633,135
Note: Closing reserve fund balance as a percentage of capital asset balance	0.54%	0.55%	0.53%	0.48%	0.49%	0.48%	0.46%	0.37%	0.36%	0.30%	0.28%	0.28%	0.28%	0.29%	0.32%	0.44%	0.66%	0.98%	1.42%	1.99%

Table F-4
Tax Supported Operating Budget Forecast Summary

Net Impact on Taxation	Actual 2012	Actual 2013	Budget 2014	Forecast																	
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Net Expenditures:																							
Administration	520,478	519,859	546,836	559,100	570,300	581,600	593,200	605,000	617,100	629,400	642,000	654,800	668,000	681,300	694,900	708,800	723,000	737,400	752,100	767,100	782,500	798,100	814,100
Protection	797,993	801,971	900,236	918,500	937,100	956,100	975,400	995,200	1,015,400	1,035,900	1,056,800	1,078,200	1,100,000	1,122,300	1,145,000	1,168,100	1,191,700	1,215,800	1,240,400	1,265,500	1,291,000	1,317,000	1,343,600
Transportation	1,187,573	1,104,064	1,202,924	1,227,000	1,251,500	1,276,500	1,302,000	1,328,000	1,354,600	1,381,700	1,409,300	1,437,500	1,466,200	1,495,500	1,525,400	1,555,900	1,587,000	1,618,700	1,651,100	1,684,100	1,717,800	1,752,200	1,787,300
Environmental	141,486	140,360	141,163	144,000	146,900	149,800	152,800	155,900	159,000	162,200	165,400	168,700	172,100	175,500	179,000	182,600	186,300	190,000	193,800	197,700	201,700	205,700	209,800
Health	5,450	5,450	750	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
Recreation and Cultural	142,169	231,012	190,751	194,600	198,500	202,500	206,600	210,700	215,000	219,400	223,900	228,400	233,000	237,700	242,500	247,400	252,300	257,300	262,400	267,600	273,000	278,500	284,000
Planning and Development	89,116	41,585	61,336	62,600	63,800	65,100	66,500	67,800	69,200	70,600	72,000	73,500	75,000	76,500	78,100	79,600	81,200	82,900	84,600	86,300	88,000	89,800	91,600
Other Revenue	(1,821,890)	(1,813,347)	(1,648,720)	(1,639,800)	(1,642,400)	(1,645,100)	(1,647,800)	(1,650,500)	(1,653,200)	(1,656,100)	(1,659,000)	(1,661,900)	(1,664,800)	(1,667,900)	(1,671,000)	(1,674,100)	(1,677,300)	(1,680,600)	(1,683,900)	(1,687,300)	(1,690,800)	(1,694,400)	(1,698,100)
Net Expenditures due to Level of Service Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	490,033	649,756	703,719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers to Reserve Funds																							
Transfer to Other Reserve/Reserve Funds	-	100,000	320,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers to Current Reserve Funds (Capital Related)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital (Tax Supported)	-	-	-	741,057	757,579	863,661	984,307	1,121,052	1,266,917	1,432,095	1,617,984	1,834,247	2,066,830	2,334,343	2,630,602	2,958,345	3,328,245	3,743,380	4,206,680	4,713,817	5,268,382	5,874,681	6,536,967
Debentures																							
Existing Debt																							
New Debt	-	-	-	-	-	24,073	48,146	72,218	104,315	136,412	168,509	192,582	224,679	248,752	272,825	296,898	312,946	320,970	320,970	320,970	320,970	320,970	320,970
Surplus/(Deficit) Adjustment	355,814	65,894	(473,764)	(100,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Taxation Levy	**1,908,222**	**1,846,604**	**1,945,231**	**2,107,857**	**2,284,079**	**2,475,034**	**2,681,953**	**2,906,170**	**3,149,132**	**3,412,407**	**3,697,693**	**4,006,829**	**4,341,809**	**4,704,795**	**5,098,127**	**5,524,343**	**5,986,191**	**6,486,650**	**7,028,950**	**7,616,587**	**8,253,352**	**8,943,351**	**9,691,037**
Taxation Levy Analysis																							
Prior Year Taxation Levy	1,811,333	1,908,222	1,846,604	1,945,231	2,107,857	2,284,079	2,475,034	2,681,953	2,906,170	3,149,132	3,412,407	3,697,693	4,006,829	4,341,809	4,704,795	5,098,127	5,524,343	5,986,191	6,486,650	7,028,950	7,616,587	8,253,352	8,943,351
Add: Provision for Assessment Growth (see below)				58,357	63,236	68,522	74,251	80,459	87,185	94,474	102,372	110,931	120,205	130,254	141,144	152,944	165,730	179,586	194,600	210,869	228,498	247,601	268,301
Current Year Taxation Levy at 0.0% Increase	1,811,333	1,908,222	1,846,604	2,003,588	2,171,093	2,352,601	2,549,285	2,762,411	2,993,355	3,243,606	3,514,780	3,808,624	4,127,034	4,472,064	4,845,939	5,251,071	5,690,073	6,165,777	6,681,250	7,239,819	7,845,085	8,500,953	9,211,652
Additional Increase in Taxation Levy for the year	96,889	(61,618)	98,627	104,269	112,986	122,432	132,668	143,759	155,777	168,801	182,914	198,205	214,775	232,731	252,188	273,272	296,118	320,874	347,700	376,768	408,267	442,398	479,385
Total Taxation Levy	1,908,222	1,846,604	1,945,231	2,107,857	2,284,079	2,475,034	2,681,953	2,906,170	3,149,132	3,412,407	3,697,693	4,006,829	4,341,809	4,704,795	5,098,127	5,524,343	5,986,191	6,486,650	7,028,950	7,616,587	8,253,352	8,943,351	9,691,037
Percentage Increase (Factoring in Assessment Growth)				**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**	**5.20%**

	Forecast																			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Assessment Growth Estimate (%)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%



APPENDIX G
WATER ASSET MANAGEMENT STRATEGY & FINANCING STRATEGY

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Financing Strategy

Table G-1
Water Capital Forecast

Description	Actual 2012	Actual 2013	Budget 2014	Forecast 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Prior Capital Expenses																							
Water Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Machinery and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Replacement Forecast																							
Facilities				-	-	-	-	-	-	-	-	-	-	2,623,268	-	-	-	-	-	-	-	-	-
Machinery and Equipment				-	11,263	2,773	8,021	-	-	-	-	-	-	20,173	15,136	3,726	10,780	-	-	-	-	-	-
Mains				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Level of Service Adjustments																							
Rehabiliation and Renewal Works				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expansion Forecast																							
Total Growth Related Projects				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	-	-	-	-	11,263	2,773	8,021	-	-	-	-	-	-	2,643,441	15,136	3,726	10,780	-	-	-	-	-	-
Capital Financing																							
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debentures	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000,000	-	-	-	-	-	-	-	-	-
Reserve Fund: Gas Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital	-	-	-	-	11,263	2,773	8,021	-	-	-	-	-	-	643,441	15,136	3,726	10,780	-	-	-	-	-	-
Total Capital Financing	**-**	**-**	**-**	**-**	**11,263**	**2,773**	**8,021**	**-**	**-**	**-**	**-**	**-**	**-**	**2,643,441**	**15,136**	**3,726**	**10,780**	**-**	**-**	**-**	**-**	**-**	**-**
Total Capital Expenses less Capital Financing	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Table G-2
Debt Requirements

Non-Growth Related Debt	Principal	Forecast																				
Year	(Inflated)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Budget 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	-							-	-	-	-	-	-	-	-	-	-	-	-	-	-
2021	-								-	-	-	-	-	-	-	-	-	-	-	-	-
2022	-									-	-	-	-	-	-	-	-	-	-	-	-
2023	-										-	-	-	-	-	-	-	-	-	-	-
2024	-											-	-	-	-	-	-	-	-	-	-
2025	2,000,000												160,485	160,485	160,485	160,485	160,485	160,485	160,485	160,485	160,485
2026	-													-	-	-	-	-	-	-	-
2027	-														-	-	-	-	-	-	-
2028	-															-	-	-	-	-	-
2029	-																-	-	-	-	-
2030	-																	-	-	-	-
2031	-																		-	-	-
2032	-																			-	-
2033	-																				-
2034	-																				
Total Annual Non-Growth Related Debt Charges	**2,000,000**	-	-	-	-	-	-	-	-	-	-	-	160,485	160,485	160,485	160,485	160,485	160,485	160,485	160,485	160,485

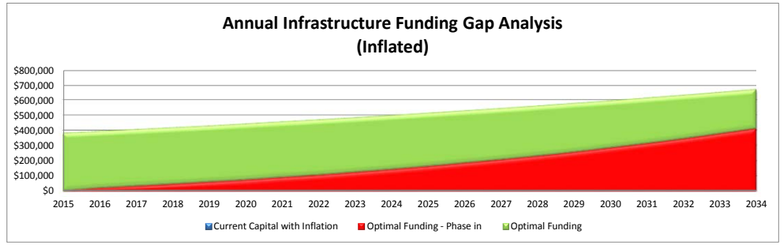
Municipality of Brooke-Alvinston
2014 Asset Management Plan
Financing Strategy

Table G-3
Reserve and Reserve Fund Continuity Schedule

Capital Reserve/Reserve Funds (Water)	Forecast																			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	36,477	37,207	46,034	77,456	117,174	179,779	258,489	354,626	469,593	604,890	762,108	286,631	300,519	349,424	416,700	522,376	657,884	825,577	1,028,788	1,268,983
Transfers From Operating/Capital	-	19,187	32,676	45,442	59,080	73,642	89,183	105,760	123,436	142,275	162,344	23,131	45,780	69,886	95,433	122,608	151,506	183,038	215,313	250,000
Transfer to Capital	-	11,263	2,773	8,021	-	-	-	-	-	-	643,441	15,136	3,726	10,780	-	-	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earned	730	903	1,519	2,298	3,525	5,068	6,953	9,208	11,861	14,943	5,620	5,893	6,851	8,171	10,243	12,900	16,188	20,172	24,882	30,380
Closing Balance	37,207	46,034	77,456	117,174	179,779	258,489	354,626	469,593	604,890	762,108	286,631	300,519	349,424	416,700	522,376	657,884	825,577	1,028,788	1,268,983	1,549,362
Note: Closing reserve fund balance as a percentage of capital asset balance	0.23%	0.27%	0.45%	0.65%	0.97%	1.36%	1.81%	2.33%	2.91%	3.56%	1.30%	1.32%	1.50%	1.73%	2.11%	2.58%	3.14%	3.80%	4.55%	5.39%

Table G-4
Water Operating Budget Forecast Summary

Net Impact on Water Revenue	Actual 2012	Actual 2013	Budget 2014	Forecast																	
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Net Expenditures:																							
Operating Expenditures	64,999	54,738	55,283	56,400	57,500	58,700	59,900	61,100	62,300	63,500	64,800	66,100	67,400	68,700	70,100	71,500	72,900	74,400	75,900	77,400	78,900	80,500	82,100
Water Purchases	93,360	106,365	100,000	102,000	104,000	106,100	108,200	110,400	112,600	114,900	117,200	119,500	121,900	124,300	126,800	129,300	131,900	134,500	137,200	139,900	142,700	145,600	148,500
OCWA	110,260	99,987	102,000	104,000	106,100	108,200	110,400	112,600	114,900	117,200	119,500	121,900	124,300	126,800	129,300	131,900	134,500	137,200	139,900	142,700	145,600	148,500	151,500
Miscellaneous Revenue	(63,347)	(11,974)	(8,500)	(8,700)	(8,900)	(9,100)	(9,300)	(9,500)	(9,700)	(9,900)	(10,100)	(10,300)	(10,500)	(10,700)	(10,900)	(11,100)	(11,300)	(11,500)	(11,700)	(11,900)	(12,100)	(12,300)	(12,500)
Transfer from Taxation	(28,186)	(107,962)	(84,101)	(38,018)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Expenditures due to Level of Service Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers to Reserve Funds																							
Transfers to Current Reserve Funds (Capital Related)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital (Water)	-	-	-	-	19,187	32,676	45,442	59,080	73,642	89,183	105,760	123,436	142,275	162,344	23,131	45,780	69,886	95,433	122,608	151,506	183,038	215,313	250,000
Debentures																							
Existing Debt	27,050	64,627	73,187	72,065	58,026	56,482	55,215	55,215	55,215	39,318	39,318	39,318	39,318	39,318	39,318	39,318	39,318	39,318	39,318	39,318	38,404	38,570	38,356
Existing Debt Recoverable - External	-	-	(17,972)	(16,850)	(1,267)	(1,267)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Existing Debt Recoverable - Internal	-	-	(15,896)	(15,896)	(15,896)	(15,896)	(15,896)	(15,896)	(15,896)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160,485	160,485	160,485	160,485	160,485	160,485	160,485	160,485	160,485
Surplus/(Deficit) Adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Service Revenue	**204,136**	**205,781**	**204,000**	**255,000**	**318,750**	**335,894**	**353,960**	**372,998**	**393,060**	**414,201**	**436,478**	**459,954**	**484,693**	**510,762**	**538,234**	**567,183**	**597,689**	**629,836**	**663,711**	**699,409**	**737,027**	**776,668**	**818,442**
Percentage Increase				**25.00%**	**25.00%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**	**5.38%**



APPENDIX H
WASTEWATER ASSET MANAGEMENT STRATEGY & FINANCING STRATEGY

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Financing Strategy

Table H-1
Wastewater Capital Forecast

Description	Actual 2012	Actual 2013	Budget 2014	Forecast 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Prior Capital Expenses																							
Wastewater Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wastewater Machinery and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wastewater Mains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Replacement Forecast																							
Land Improvements				-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,313	-	-	-	-	-
Facilities				-	-	-	-	-	373,366	384,567	792,208	-	-	-	-	-	-	-	-	-	-	-	-
Machinery and Equipment				7,505	6,670	-	44,323	5,098	18,079	7,733	-	-	624,385	10,087	8,964	-	59,566	6,851	24,297	10,392	516,732	587,956	414,915
Force and Gravity Mains				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Level of Service Adjustments																							
Rehabiliation and Renewal Works				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expansion Forecast																							
Total Growth Related Projects				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures	**-**	**-**	**-**	**7,505**	**6,670**	**-**	**44,323**	**5,098**	**391,445**	**392,300**	**792,208**	**-**	**624,385**	**10,087**	**8,964**	**-**	**59,566**	**21,165**	**24,297**	**10,392**	**516,732**	**587,956**	**414,915**
Capital Financing																							
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debentures	-	-	-	-	-	-	-	-	100,000	300,000	650,000	-	400,000	-	-	-	-	-	-	-	-	-	-
Reserve Fund: Gas Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve/Reserve Fund: Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital	-	-	-	7,505	6,670	-	44,323	5,098	291,445	92,300	142,208	-	224,385	10,087	8,964	-	59,566	21,165	24,297	10,392	516,732	587,956	414,915
Total Capital Financing	**-**	**-**	**-**	**7,505**	**6,670**	**-**	**44,323**	**5,098**	**391,445**	**392,300**	**792,208**	**-**	**624,385**	**10,087**	**8,964**	**-**	**59,566**	**21,165**	**24,297**	**10,392**	**516,732**	**587,956**	**414,915**
Total Capital Expenses less Capital Financing	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Table H-2
Debt Requirements

Non-Growth Related Debt Year	Principal (Inflated)	Forecast 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Budget 2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2017	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2019	-					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	100,000						8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024	8,024
2021	300,000							24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073	24,073
2022	650,000								52,158	52,158	52,158	52,158	52,158	52,158	52,158	52,158	52,158	52,158	52,158	52,158	52,158
2023	-									-	-	-	-	-	-	-	-	-	-	-	-
2024	400,000										32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097	32,097
2025	-											-	-	-	-	-	-	-	-	-	-
2026	-												-	-	-	-	-	-	-	-	-
2027	-													-	-	-	-	-	-	-	-
2028	-														-	-	-	-	-	-	-
2029	-															-	-	-	-	-	-
2030	-																-	-	-	-	-
2031	-																	-	-	-	-
2032	-																		-	-	-
2033	-																			-	-
2034	-																				-
Total Annual Non-Growth Related Debt Charges	**1,450,000**	-	-	-	-	-	-	8,024	32,097	84,255	84,255	116,352	116,352	116,352	116,352	116,352	116,352	116,352	116,352	116,352	116,352

Municipality of Brooke-Alvinston
2014 Asset Management Plan
Financing Strategy

Table H-3
Reserve and Reserve Fund Continuity Schedule

Capital Reserve/Reserve Funds (Wastewater)	Forecast																			
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Opening Balance	64,318	57,949	89,169	141,475	164,366	243,842	50,125	78,377	52,059	139,133	22,794	115,720	239,428	404,831	545,133	762,308	1,021,007	1,342,201	1,196,973	1,023,216
Transfers From Operating/Capital	-	36,142	49,532	63,991	79,793	96,745	119,015	114,870	84,346	107,599	100,744	127,977	157,466	189,179	223,392	262,976	305,269	348,033	394,136	443,830
Transfer to Capital	7,505	6,670	-	44,323	5,098	291,445	92,300	142,208	-	224,385	10,087	8,964	-	59,566	21,165	24,297	10,392	516,732	587,956	414,915
Transfer to Other																				
Transfer to Operating	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Earned	1,136	1,748	2,774	3,223	4,781	983	1,537	1,021	2,728	447	2,269	4,695	7,938	10,689	14,947	20,020	26,318	23,470	20,063	21,043
Closing Balance	57,949	89,169	141,475	164,366	243,842	50,125	78,377	52,059	139,133	22,794	115,720	239,428	404,831	545,133	762,308	1,021,007	1,342,201	1,196,973	1,023,216	1,073,174
Note: Closing reserve fund balance as a percentage of capital asset balance	0.43%	0.64%	0.99%	1.11%	1.60%	0.32%	0.49%	0.31%	0.81%	0.13%	0.64%	1.28%	2.10%	2.75%	3.73%	4.85%	6.19%	5.36%	4.45%	4.53%

Table H-4
Wastewater Operating Budget Forecast Summary

Net Impact on Wastewater Revenue	Actual 2012	Actual 2013	Budget 2014	Forecast																	
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Net Expenditures																							
Operating Expenditures	78,560	106,141	112,387	114,600	116,900	119,200	121,600	124,000	126,500	129,000	131,600	134,200	136,900	139,600	142,400	145,200	148,100	151,100	154,100	157,200	160,300	163,500	166,800
OCWA	49,150	55,127	52,290	53,300	54,400	55,500	56,600	57,700	58,900	60,100	61,300	62,500	63,800	65,100	66,400	67,700	69,100	70,500	71,900	73,300	74,800	76,300	77,800
Transfer from Taxation	(34,556)	(118,453)	(50,696)	(13,245)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Expenditures due to Level of Service Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer to Capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers to Reserve Funds																							
Transfers to Current Reserve Funds (Capital Related)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital (Wastewater)	-	-	-	-	36,142	49,532	63,991	79,793	96,745	119,015	114,870	84,346	107,599	100,744	127,977	157,466	189,179	223,392	262,976	305,269	348,033	394,136	443,830
Debentures																							
Existing Debt	39,821	91,998	89,969	87,931	86,053	83,929	82,088	79,773	77,744	63,894	61,851	59,808	57,868	55,694	53,656	51,636	49,607	47,566	22,998	-	-	-	-
Existing Debt - Recovery (External)	-	-	(69,150)	(67,346)	(65,683)	(63,803)	(62,172)	(60,123)	(58,327)	(56,568)	(54,759)	(52,950)	(51,233)	(49,308)	(47,504)	(45,715)	(43,919)	(42,112)	(20,361)	-	-	-	-
New Debt	-	-	-	-	-	-	-	-	-	8,024	32,097	84,255	84,255	116,352	116,352	116,352	116,352	116,352	116,352	116,352	116,352	116,352	116,352
Surplus/(Deficit) Adjustment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wastewater Service Revenue	**132,975**	**134,813**	**134,800**	**175,240**	**227,812**	**244,359**	**262,106**	**281,143**	**301,562**	**323,465**	**346,959**	**372,158**	**399,189**	**428,182**	**459,281**	**492,638**	**528,419**	**566,798**	**607,965**	**652,121**	**699,485**	**750,288**	**804,782**
Percentage Increase				**30.00%**	**30.00%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**	**7.26%**