

TOWN OF ERIN

ASSET MANAGEMENT PLAN

**ROADS, BRIDGES, CULVERTS,
FACILITIES AND WATER ASSETS**

DECEMBER 3, 2013



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 **Planning for growth**

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

This report contains the Asset Management Plan for the Town of Erin (Town) for Roads, Bridges, Culverts, Facilities, and Water Assets, 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 Town. This includes detailed information on the Town’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 Town 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 Town’s assets, while moving towards the specified expected levels of service identified above. The goal of the asset management strategy is to have the Town 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 Town staff for capital and financial decision making. It can be tied to various existing reports (such as the Town’s budget, official plan and strategic planning reports) to ensure the asset management plan can be updated to reflect any changes in Town 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 forward basis.

Watson & Associates Economists Ltd. (Watson) was retained by the Town to prepare an asset management plan. This plan is intended to be a tool for Town 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:

- Roads;
- Bridges;
- Culverts;
- Facilities; and
- Water related (mains, facilities).

The Town's goals and objectives with respect to their capital assets relate to the level of service being provided to Town residents. Services should be provided at expected levels, as defined within this asset management plan. Town 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 Town's ability to meet these goals and objectives.

1.2 Plan Development

The asset management plan process developed a program that leverages the Town's asset database information, staff and engineering input and asset management principles.

The development of the Town'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 to 2013 dollars, where required, using applicable inflationary indices.

- 2) Assess current condition of the assets, based on a combination of existing Town reports and an 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 asset management plan, as well as asset risk levels that require mitigation.
- 4) Determine and document current levels of service, as well as expected levels of service, based on discussions with Town 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 Town change. This can be accomplished in conjunction with the Town's budget process. Town 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 Town'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 Town'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 Town'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 Town, 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 Town's asset data.

Further integration into other Town 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:

- Development Charge Background Study;
- Official Plan;
- 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 Town. 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 Town 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.

In anticipation of undertaking this plan, the Town commissioned multiple engineering companies to complete valuation, condition and/or needs assessments for the applicable assets. The following data and reports were used to supplement the Town's asset inventory during this process:

- a) 2013 Road Needs Study (4Roads Management);
- b) Water assets (Triton Engineering);
- c) 2013 Municipal Bridge and Culvert Assessment Report (AECOM);
- d) Facilities (R.J. Burnside and Associates Limited); and
- e) Discussions with Town staff.

2.2 Capital Asset Overview

The Town presently owns and manages tax supported capital assets with a 2013 replacement value of approximately \$177.6 million (excluding land, land improvements, vehicles, equipment and machinery 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
2013 Tax Supported Assets

Asset Type	Historical Cost 12/31/2012	Accumulated Amortization 12/31/2012	Net Book Value 12/31/2012	Replacement Cost (2013\$)
Facilities	8,366,198	4,474,543	3,891,655	28,685,300
Roads	39,329,637	17,516,959	21,812,679	121,766,333
Bridges	710,146	305,004	405,142	8,582,492
Culverts	3,805,632	1,563,834	2,241,798	18,522,692
Total Capital Assets	\$ 52,211,613	\$ 23,860,339	\$ 28,351,274	\$ 177,556,817

Figure 2-1
2013 Tax Supported Assets Distribution
Based on Replacement Cost

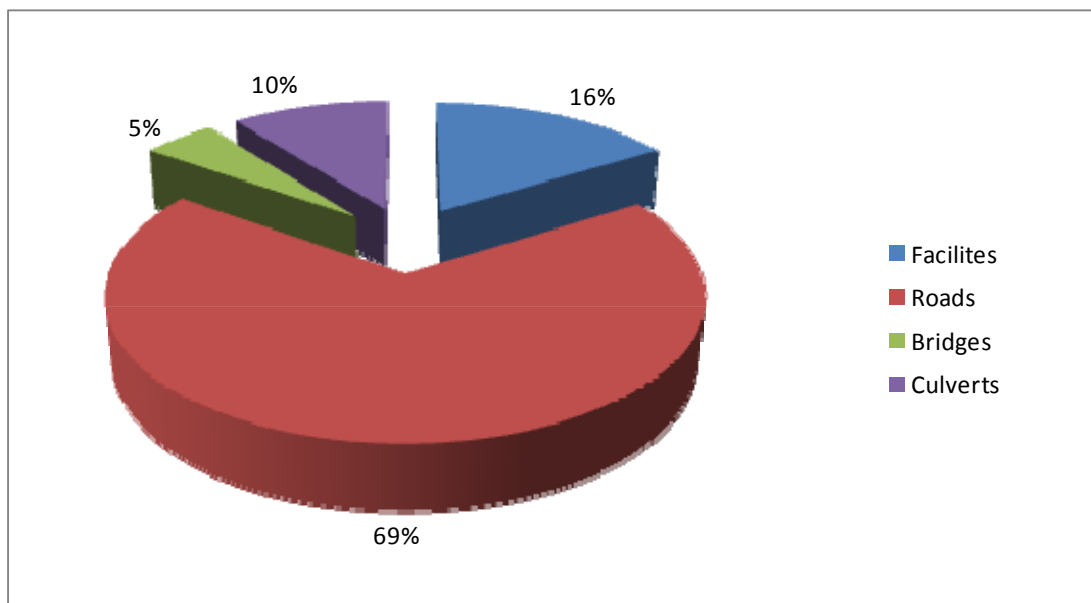


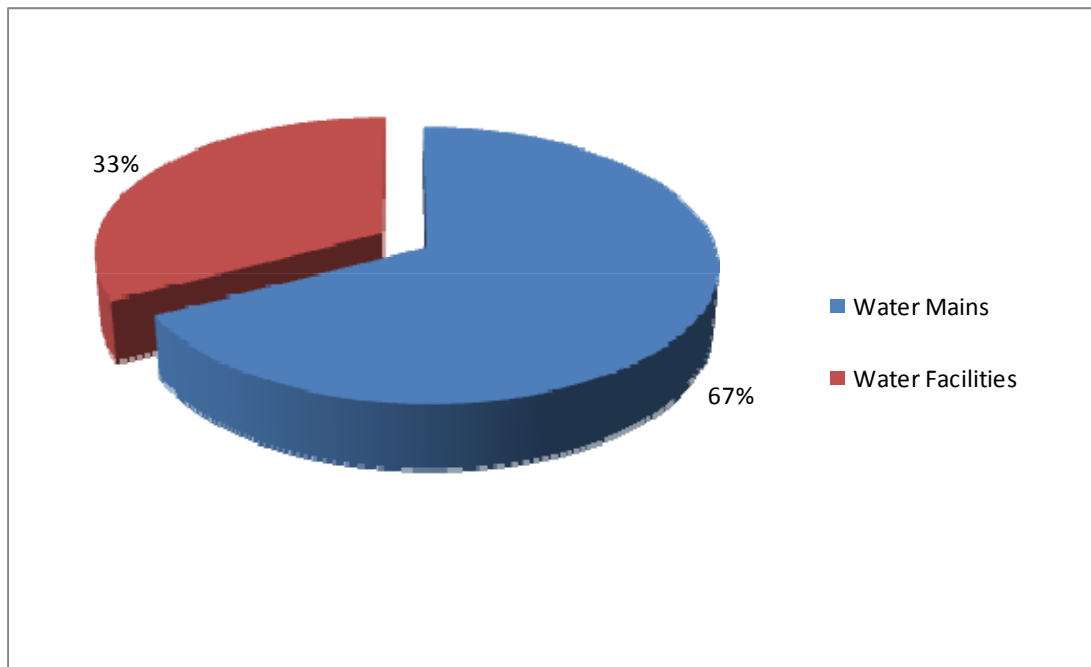
Table 2-1 also shows the Town's financial accounting valuation summary by asset type. Since 2009, the Town has been required under the PSAB 3150 to maintain asset listings complete with historical cost (i.e. the original cost to purchase or construct an asset), accumulated amortization and net book value.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

The Town presently owns and manages water capital assets with a 2013 replacement value of approximately \$32.3 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
2013 Water Assets

Asset Type	Historical Cost 12/31/2012	Accumulated Amortization 12/31/2012	Net Book Value 12/31/2012	Replacement Cost (2013\$)
Water Mains	6,341,128	2,181,236	4,159,892	21,769,447
Facilities	3,436,367	2,134,587	1,301,780	10,510,681
Total Water Capital Assets	\$ 9,777,495	\$ 4,315,823	\$ 5,461,672	\$ 32,280,128

Figure 2-2
2013 Water Assets Distribution
Based on Replacement Cost



If new assets or services (i.e. wastewater) are introduced by the Town, they should be incorporated into this plan. In addition, it is recommended that vehicles, equipment and land improvements be added to this plan in the future.

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 Town'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 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**

Selected Tax Supported Assets

Asset Type	Weighted Average (Rounded)		
	Useful Life	Remaining Useful Life	% Remaining Useful Life
Facilities	78	49	63.3%
Roads	37	19	49.6%
Bridges	47	6	13.5%
Culverts	48	14	30.0%

Water Assets

Asset Type	Weighted Average (Rounded)		
	Useful Life	Remaining Useful Life	% Remaining Useful Life
Water Mains	66	40	61.4%
Facilities	40	16	41.2%

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.

Condition ratings were derived from a combination of available studies (listed in section 2.1) and the age analysis (all other assets). This rating was then converted to a condition description of “Very Poor” to “Very Good”. 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
Selected Tax Supported Assets

Asset Type	Weighted Condition
Facilities	Average
Roads	Average
Bridges	Average
Culverts	Average

Water Assets

Asset Type	Weighted Condition
Water Mains	Good
Facilities	Good

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. 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 Policy” for the Town. This policy illustrates how the asset data will 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

3. EXPECTED LEVELS OF SERVICE

3.1 Scope and Process

A level of service (LOS) analysis gives the Town 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 Town, 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 Town staff expectations; and
- Financial or resource constraints.

The previous task of determining the state of the Town's local infrastructure establishes the asset inventory and condition, as well as asset management policies and principles to guide the refinement and upkeep of asset infrastructure. The LOS analysis will utilize this information and factor in the impact of asset service level targets. It is important to document an expected LOS that is realistic to the Town. 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 Town.

3.2 Current Levels of Service versus Expected Levels of Service

The Town'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 the LOS, the Town 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 Town's current budget). The table below outlines broad LOS descriptions (both current and expected LOS). This analysis was documented through discussions with Town staff.

**Table 3-1
Level of Service Analysis**

Roads

Department	Level of Service Description	
	Current	Expected
Public Works	Meet "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.	Meet "Minimum Maintenance Standards" as defined by Ontario Regulation 239/02.
Public Works	Roads Maintenance based on allocated budget.	Maintain adequate PCI as per the Roads Needs Study.
Public Works	Roads Maintenance based on allocated budget.	Roads Maintenance (i.e. Crack Sealing, Surface Treatment) as per the Roads Needs Study.
Public Works	Gravel Resurfacing based on allocated budget.	Gravel Resurfacing on applicable roads every 3 years.

Bridges & Culverts

Department	Level of Service Description	
	Current	Expected
Public Works	Maintain adequate condition and load limits.	Maintain adequate condition (based on BCI) and load limits (12 tonnes).
Public Works	Bridge inspections (i.e. using OSIM reports) required every 2 years.	Bridge inspections (i.e. using OSIM reports) required every 2 years.
Public Works	Limited Bridge & Culvert Maintenance.	Bridge & Culvert Maintenance as per OSIM Reports.

Buildings

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	Reactive Maintenance Approach.	Proactive Maintenance as per the Facility Condition Report.
Various	Some Back-up Power (Generators) in Place.	Back-up Power (Generators) Where Needed.

Water

Department	Level of Service Description	
	Current	Expected
Water	Meet all legislative requirements.	Meet all legislative requirements.
Water	Minimize Water Main Breaks.	Minimize Water Main Breaks.
Water	Minimize Unaccounted for Water.	Minimize Unaccounted for Water (below 15%).
Water	Reactive maintenance for Leak Detection and Meter Replacement.	Introduce Leak Detection, Backflow Prevention and Meter Replacement Programs.
Water		Maintain and Monitor Adequate Average Age of Water Mains.

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 Town's goals and objectives when it comes to asset management. The Town 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 Town, while the MPMP provides an evaluation of the Town's "performance". The following table provides a summary of the specific MPMPs relating to capital asset effectiveness.

**Table 3-2
Performance Measures Analysis**

Department	Assets	Performance Measure Description	Historical Performance			Goal
			2011	2012	2013	
Fire	Buildings, Equipment, Vehicles	Residential fire civilian injuries per 1,000 persons	-	0.0820	Not yet available	Minimize
Fire	Buildings, Equipment, Vehicles	Residential fire civilian fatalities per 1,000 persons	-	-	Not yet available	Minimize
Fire	Buildings, Equipment, Vehicles	Number of residential structural fires per 1,000 households	0.7110	1.9810	Not yet available	Minimize
Transportation	Roads	Percentage of paved lane Km where condition is rated as good to very good	32.90%	38.40%	Not yet available	Maximize
Transportation	Bridges & Culverts	Percentage of bridges & culverts where condition is rated as good to very good	25.00%	25.00%	Not yet available	Maximize
Transportation	Roads	Percentage of winter events where response met or exceeded local service levels	100.00%	100.00%	Not yet available	Maximize
Water	Water mains	Weighted # days when a boil water advisory was issued	-	-	Not yet available	Minimize
Water	Water mains	Number of water main breaks per 100 KM of pipe	12.1212	24.2424	Not yet available	Minimize

The Town will continue to calculate and monitor these performance measures, both for MPMP and asset management purposes. As the Town'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 as outlined in the Town's Development Charge Background Study, 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 Town 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:

$$\text{Risk of Asset Failure} = \text{Probability of Failure} \times \text{Consequence of Failure}$$

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

Table 4-1
Probability of Failure Matrix

Condition	Probability of Failure
Very Poor	Almost Certain
Poor	Likely
Average	Possible
Good	Unlikely
Very Good	Rare

Consequence of failure has been determined by examining each asset type separately. Consequence refers to the impact on the Town if a particular asset were to fail. Types of impacts include the following:

- **Cost Impacts:** the cost of failure to the Town (i.e. capital replacement, rehabilitation, fines & penalties, damages, etc);
- **Social impacts:** potential injury or death to residents or Town staff;
- **Environmental impacts:** the impact of the asset failure on the environment;
- **Service delivery impacts:** the impact of the asset failure on the Town'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 Town.

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

For water related assets, Triton Engineering considered multiple factors (see Appendix B) in determining asset condition, probability of failure, and consequence of failure. The result, on an asset specific basis, is shown in Appendix A.

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

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

Table 4-2
Consequence of Failure Matrix for Tax Supported Assets

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

Table 4-3
Total Risk of Asset Failure Matrix

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

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 Town's capital assets.

4.3 Priority Identification

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

**Table 4-4
Priorities Based on Asset Risk**

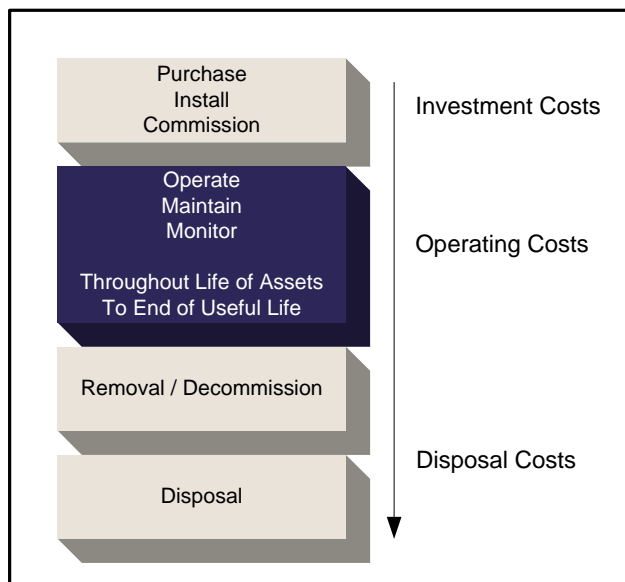
Area / Category	Description (with ID)	Total Risk	Planned Action
Roads & Bridges	Station Road (200) & Bridge (2064)	Extreme/High	Replacement in short-term capital
Roads	17 Sideroad (270-300)	Extreme/High	Replacement in short-term capital
Roads	2nd Line (710-740)	Extreme/High	Replacement in short-term capital
Roads	27 Sideroad (160)	Extreme/High	Replacement in short-term capital
Roads	Orangeville St (250)	Extreme/High	Replacement in short-term capital
Roads	5th Line (970,974)	Extreme/High	Replacement in short-term capital
Roads	Dundas St W (10000)	Extreme/High	Replacement in short-term capital
Roads	Erin-Eramosa Boundary (620)	Extreme/High	Replacement in short-term capital
Bridges & Culverts	Culvert 2045	Extreme/High	Replacement in short-term capital
Bridges & Culverts	Culvert 2061	Extreme/High	Replacement in short-term capital
Bridges & Culverts	Bridge 1	Extreme/High	Replacement in short-term capital
Water	Charles St (2300)	Extreme/High	Replacement in short-term capital
Water	Daniel St (16000,17000)	Extreme/High	Replacement in short-term capital
Water	Church Blvd (2400,2450,2500)	Extreme/High	Replacement in short-term capital
Water	Ellen Cres (1370)	Extreme/High	Replacement in short-term capital
Water	Spruce St (1395)	Extreme/High	Replacement in short-term capital
Facilities	Emergency Generators - Hillsburgh Fire Hall & Centre 2000	High	Replacement in short-term capital
Facilities	Centre 2000 HVAC	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 use recently in the management of capital assets. By

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 Town’s asset management strategy, costs incurred through an asset’s lifecycle were considered and documented.

Asset Replacement Analysis

In forecasting the Town’s asset replacement needs, comparisons were made between the following scenarios:

- *Scenario 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 “Condition and Risk”;*
 - 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.

In addition to the assets shown in section 2 of this report, Town staff provided a replacement schedule for vehicles and equipment, which has been included in the scenarios mentioned above.

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 and 4-3 below show the forecasts over a 10 year period, where approximately \$20.5 million (replacement cost) in tax supported capital assets and \$2.5 million in water 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
Tax Supported Capital Assets - 10 Year Forecast

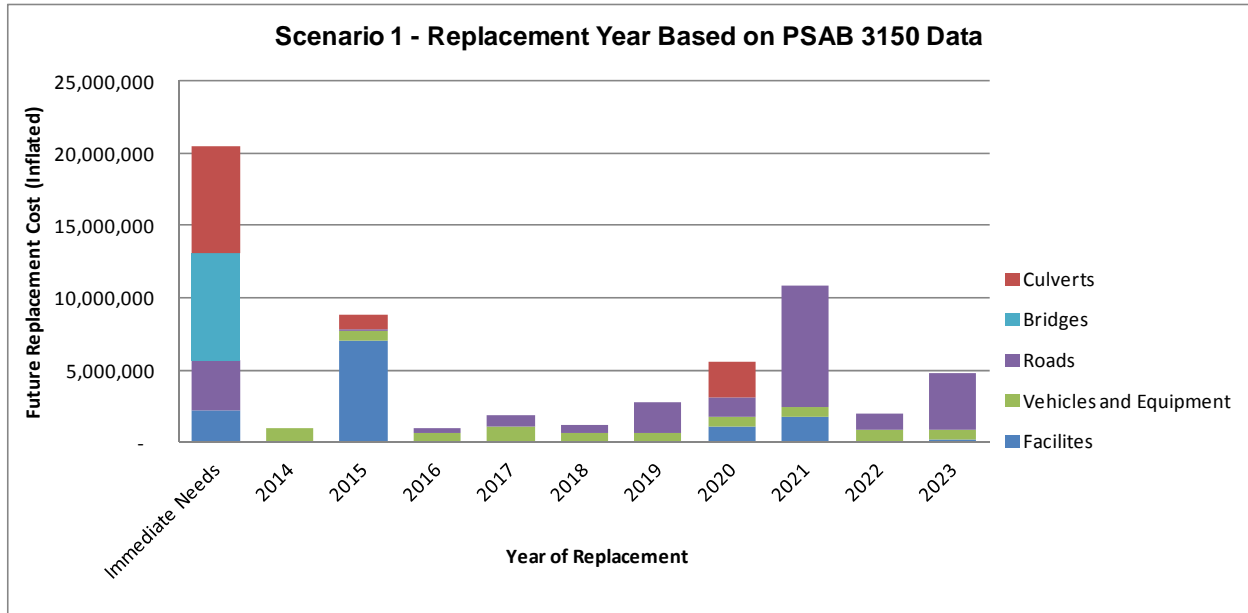
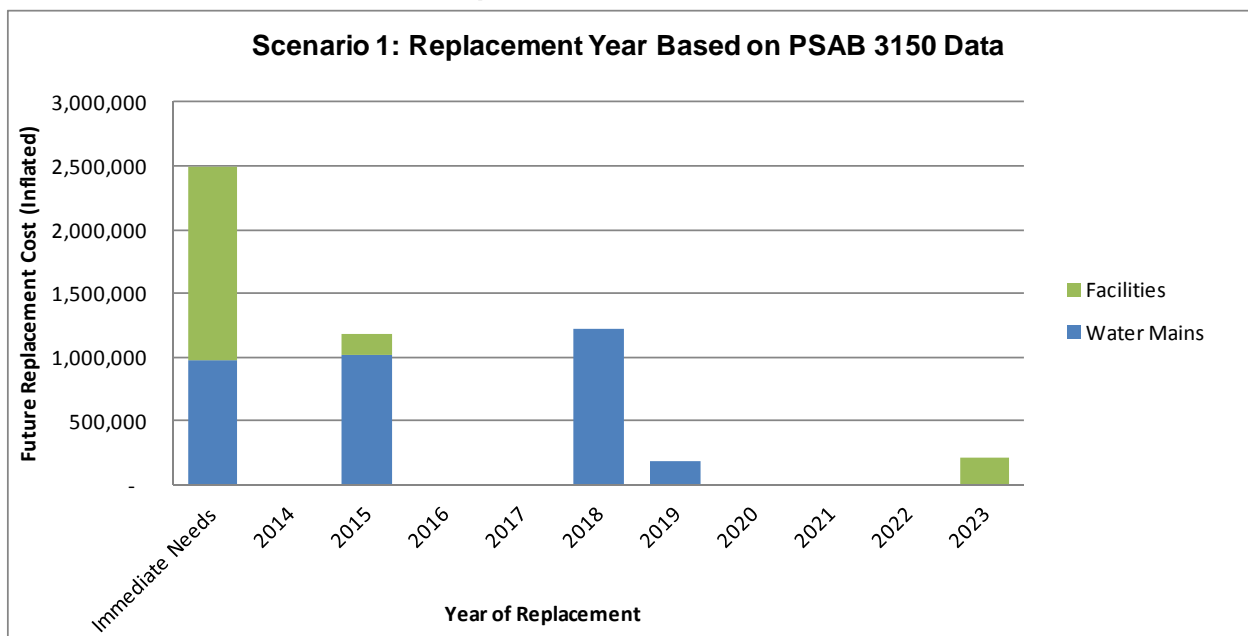


Figure 4-3
Water Capital Assets - 10 Year Forecast



Scenario 2: Replacement forecast based on “Condition and Risk”

Items that had been identified under the previous scenario have been distributed within the forecast period. Based on these adjustments, \$368,000 of tax supported capital assets and \$0 of water capital assets are identified as “immediate needs”. Figures 4-4 and 4-5 show the 10 year forecasts under this scenario. This is the recommended scenario for the Town. Please refer to Appendix E for charts and graphs depicting the entire 20 year forecast for this scenario. A total of \$73.1 million in tax supported and \$14.1 million in water capital needs are identified over the 20 year forecast period (\$28 million and \$5.5 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 in the following areas:

- Roads – based on the Town’s Road Needs Study immediate needs recommendations, as well as discussions with Town staff;
- Bridges – based on the Town’s needs identified in the Bridge and Culvert Inspection Report;
- Facilities – based on the review completed by R.J. Burnside and Associates Limited; and
- Water – based on discussions with Town staff and Triton Engineering.

The financing strategy discussed in the next Chapter will incorporate the level of service adjustments, outlined in Appendix D, into the recommended financing analysis.

Figure 4-4
Tax Supported Capital Assets - 10 Year Forecast

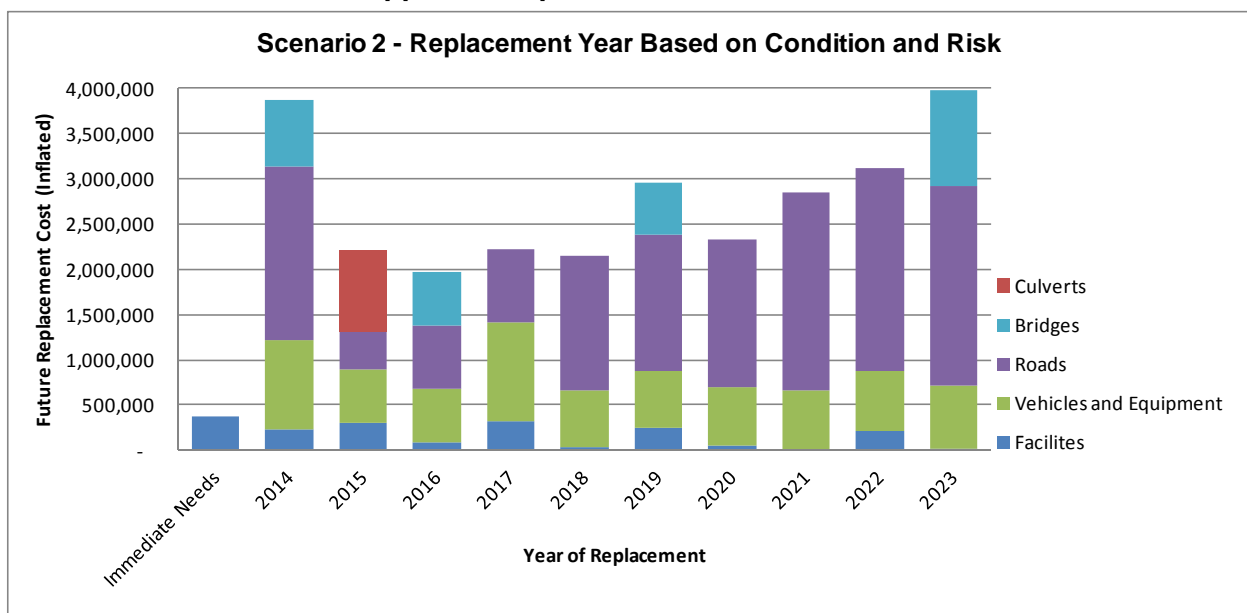
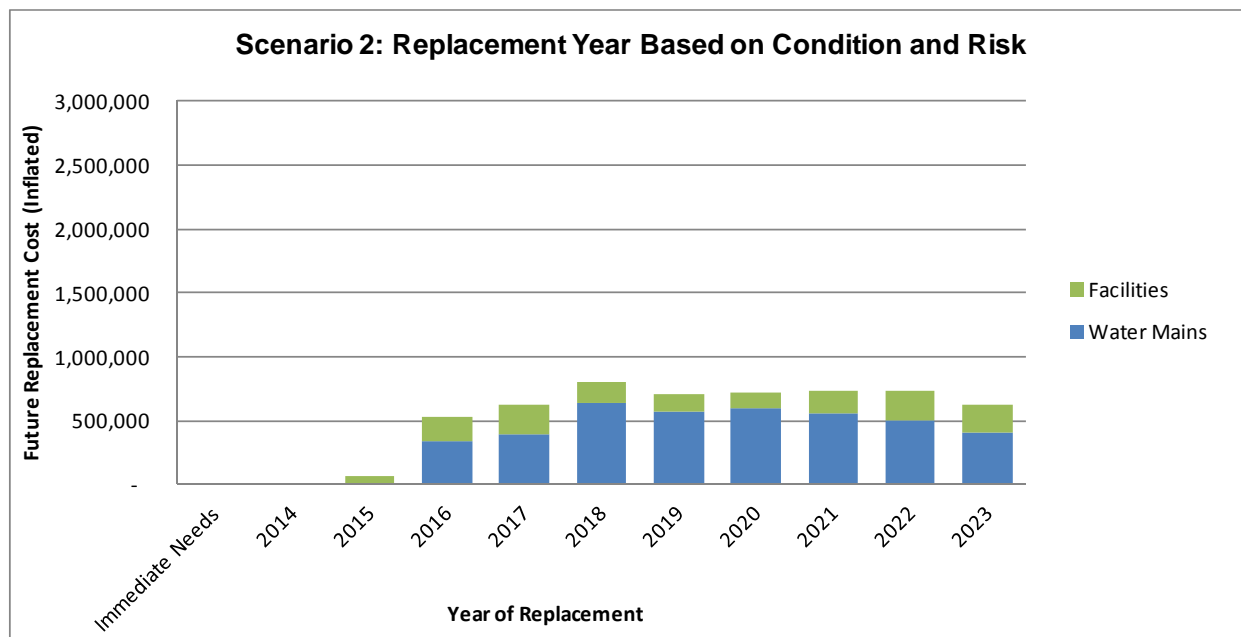


Figure 4-5
Water Capital Assets - 10 Year Forecast



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 Town'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

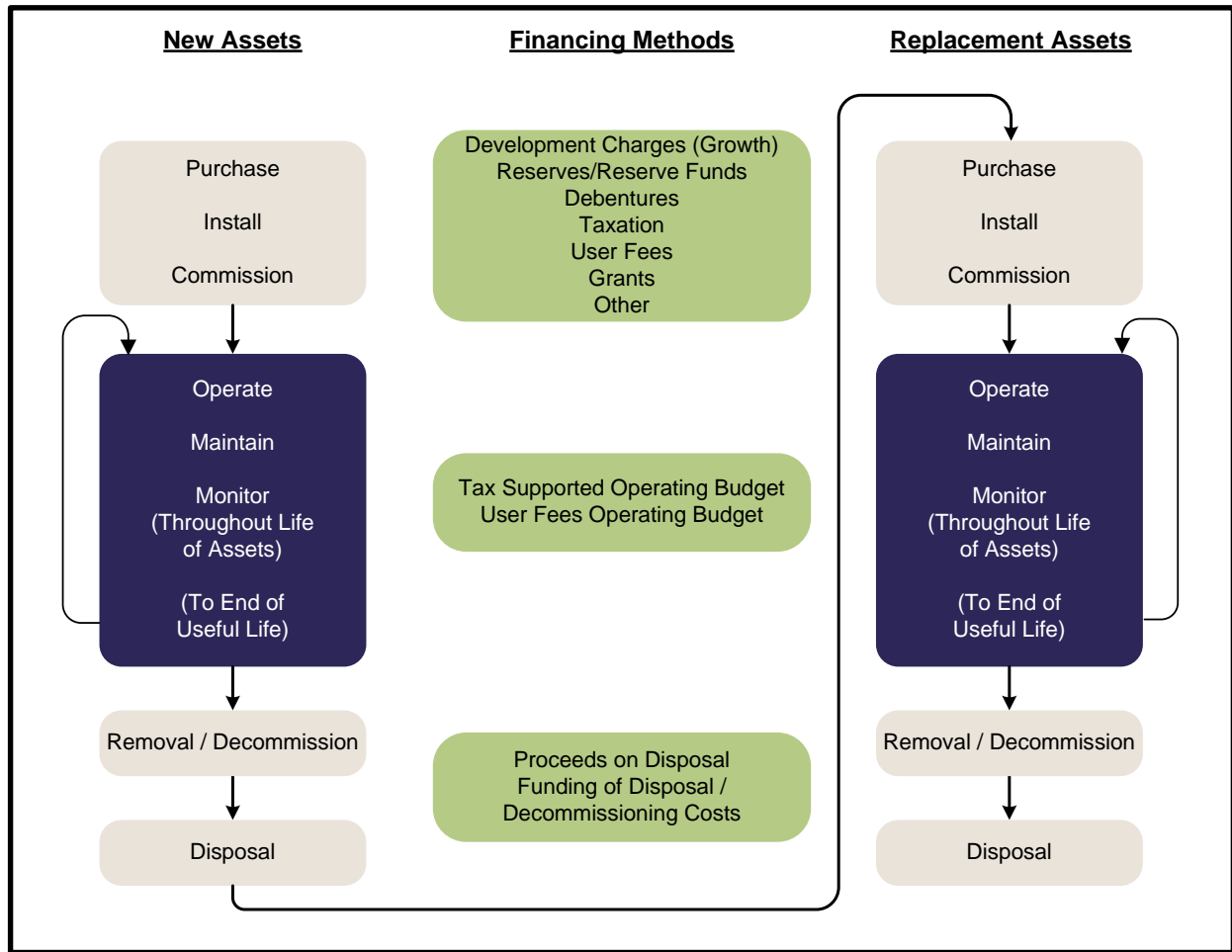
The financing strategy outlines the suggested financial approach to funding the recommended asset management strategy outlined in Chapter 4, while utilizing the Town's existing budget structure. This section of the asset management plan includes:

- 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 2011, 2012 and budget expenditures for 2013;
- 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 Town'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 Town 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 2011 and 2012, as well as 2013 budgeted results. All maintenance for assets was funded through taxation revenue for tax supported assets and water rates for water related assets based on the Town's budget structure.

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

Tax Supported

Description	Actual 2011	Actual 2012	Budget 2013
Asset Maintenance	1,148,822	1,271,251	1,484,493
Taxation Funding	1,148,822	1,271,251	1,484,493
Net Unfunded	-	-	-

Water

Description	Actual 2011	Actual 2012	Budget 2013
Asset Maintenance	106,108	133,745	130,000
Water Rate Revenue	106,108	133,745	130,000
Net Unfunded	-	-	-

Tables 5-2 and 5-3 outline the historical capital results for 2011, 2012 and budgeted results for 2013 including renewal/rehabilitation, replacement/disposal, and expansion. The capital funding includes the use of grants, development charges for growth (expansion) related costs, debentures, reserve/reserve funds, gas tax, donations, as well as contributions from the operating budget.

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

Description	Actual 2011	Actual 2012	Budget 2013
Capital Expenses			
General Government	35,523	32,142	83,990
Building Dept	1,033	-	45,000
Fire	657,774	2,123,124	387,326
Roads	303,961	1,235,000	1,432,856
Street Lighting	5,154	907	15,000
Environmental	96,175	72,513	100,000
Planning	813	-	-
Recreation & Culture	229,720	283,045	93,552
	1,330,153	3,746,731	2,157,724
Capital Financing			
Provincial/Federal Grants	-	66,100	23,768
Federal Gas Tax	50,986	653,338	341,965
Transfer from Operating	831,841	401,933	665,211
Long Term Debt Proceeds	146,419	1,612,226	277,335
Reserve Funds: Development Charges	50,000	200,599	50,000
Reserve Funds: Other	-	55,416	142,400
Reserves: Capital	250,907	720,103	588,038
Other Revenue	-	37,016	69,007
Total Capital Financing	1,330,153	3,746,731	2,157,724
Total Capital Expenses less Capital Financing	-	-	-

Table 5-3
Water Historical Results
Renewal/Rehabilitation, Replacement/Disposal & Expansion

Description	Actual 2011	Actual 2012	Budget 2013
Capital Expenses			
Major Studies	-	-	20,000
ORII Project # 1	288	30,811	738,396
CIIF - Water Tower Interior Coating	-	-	237,533
Capital Projects	43,471	401,771	186,000
	43,759	432,582	1,181,929
Capital Financing			
Provincial/Federal Grants	17,405	159,758	738,396
Long Term Debt Proceeds	8,559	38,210	-
Transfer from Operating	-	24,981	
Reserve Funds: Development Charges	-	-	50,000
Reserve Funds: Other	17,795	68,542	104,166
Reserves: Capital	-	12,467	283,867
Other Revenue	-	128,624	5,500
Total Capital Financing	43,759	432,582	1,181,929
Total Capital Expenses less Capital Financing	-	-	-

5.3 Financing Strategy

Tax Supported

Table 5-4 shows the tax supported expenditure forecast for maintenance, renewal/rehabilitation, replacement/disposal and expansion for the first 10 years of the forecast. While this summary only shows high level cost classifications, further detail (including the full 20 year forecast) can be obtained from Appendix F.

Table 5-4
Tax Supported Expenditure Forecast Summary

Asset Lifecycle Costs	Forecast (Inflated)									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Maintenance: Current Service Levels	1,514,183	1,544,466	1,575,355	1,606,862	1,638,999	1,671,779	1,705,215	1,739,319	1,774,105	1,809,587
Maintenance: LOS Adjustment	25,194	25,698	26,212	26,736	27,271	27,816	28,373	28,940	29,519	56,927
Total Asset Maintenance	1,539,377	1,570,164	1,601,567	1,633,598	1,666,270	1,699,595	1,733,587	1,768,259	1,803,624	1,866,515
Renewal/Rehabilitation	-	-	-	-	-	-	-	-	-	-
Renewal/Rehabilitation - LOS Adjustment	415,378	487,484	463,863	522,799	584,854	650,161	718,861	791,098	867,022	946,789
Total Renewal/Rehabilitation	415,378	487,484	463,863	522,799	584,854	650,161	718,861	791,098	867,022	946,789
Replacement/Disposal	4,056,692	2,397,770	1,977,794	2,213,935	2,145,322	2,959,216	2,322,176	2,856,160	3,114,414	3,982,692
Replacement/Disposal - LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Replacement/Disposal	4,056,692	2,397,770	1,977,794	2,213,935	2,145,322	2,959,216	2,322,176	2,856,160	3,114,414	3,982,692
Expansion: DC Related	289,718	298,410	286,579	542,023	324,597	83,584	1,475,849	1,411,182	-	-
Expansion: LOS Adjustment	69,834	-	404,746	-	-	-	-	-	-	-
Total Expansion	359,552	298,410	691,324	542,023	324,597	83,584	1,475,849	1,411,182	-	-
Total	6,371,000	4,753,828	4,734,549	4,912,355	4,721,043	5,392,556	6,250,473	6,826,698	5,785,060	6,795,996

Items in Table 5-4 labelled as “LOS Adjustment” refer to the level of service analysis discussed in Chapter 2 and Appendix D. Expansion related costs labelled as “DC related” refer to projects identified in the Town’s Development Charge Background Study (please refer to Appendix F).

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

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

Funding (Revenue) by Source	Forecast									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Taxation	1,539,377	1,570,164	1,601,567	1,633,598	1,666,270	1,699,595	1,733,587	1,768,259	1,803,624	1,866,515
Grants	2,000,000	-	-	-	-	-	-	-	-	-
Other Contributions	16,000	-	97,650	-	-	-	-	-	-	-
Debentures	638,000	600,000	900,000	700,000	200,000	1,000,000	1,400,000	1,300,000	500,000	1,000,000
Development Charges Reserve Funds	144,859	149,205	143,289	271,011	324,597	62,688	147,585	479,802	-	-
Gas Tax Reserve Funds	354,442	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965
Capital Reserve Fund	1,678,322	2,092,494	1,650,077	1,965,780	2,188,210	2,288,308	2,627,336	2,936,673	3,139,470	3,587,517
Total	6,371,000	4,753,828	4,734,549	4,912,355	4,721,042	5,392,556	6,250,473	6,826,698	5,785,060	6,795,996

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.
- The portion of newly acquired or constructed assets that are “growth (DC) related” are shown as financed by development charges.
- Federal Gas Tax has been shown as a stable and long-term funding source for eligible capital projects.
- Debt financing is shown as required in years where significant capital needs are identified.
- Other contributions include donations and other miscellaneous revenues.
- The Town 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 Town 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 Town 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 Town’s own available funding sources (i.e. using taxation, gas tax funding and debentures), an increase in the Town’s taxation levy of 2.5% per year (above inflationary adjustments, currently assumed to be 2.0%) would be required. However, if other funding sources become available (i.e. grant funding) or if maintenance and rehabilitation practices allow for the deferral of capital works, then the impact on Town taxation would decrease.

Water

Table 5-6 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 5-6
Water Expenditure Forecast Summary

Asset Lifecycle Costs	Forecast (Inflated)									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Maintenance: Current Service Levels	132,600	135,252	137,957	140,716	143,530	146,401	149,329	152,315	155,361	158,469
Maintenance: LOS Adjustment	-	-	-	-	-	-	-	-	-	-
Total Asset Maintenance	132,600	135,252	137,957	140,716	143,530	146,401	149,329	152,315	155,361	158,469
Renewal/Rehabilitation	-	-	-	-	-	-	-	-	-	-
Renewal/Rehabilitation - LOS Adjustment	272,084	225,000	128,750	-	-	159,135	122,987	126,677	130,477	134,392
Total Renewal/Rehabilitation	272,084	225,000	128,750	-	-	159,135	122,987	126,677	130,477	134,392
Replacement/Disposal	-	56,468	520,887	624,493	799,397	699,310	711,721	729,588	736,500	628,183
Replacement/Disposal - LOS Adjustment	-	-	112,000	181,875	187,331	-	-	-	-	-
Total Replacement/Disposal	-	56,468	632,887	806,368	986,728	699,310	711,721	729,588	736,500	628,183
Expansion: DC Related	-	-	-	-	-	-	-	1,140,093	-	-
Expansion: LOS Adjustment	-	35,000	8,500	-	-	-	-	-	-	-
Total Expansion	-	35,000	8,500	-	-	-	-	1,140,093	-	-
Total	404,684	451,720	908,094	947,084	1,130,258	1,004,845	984,037	2,148,673	1,022,339	921,043

Items in Table 5-6 labelled as “LOS Adjustment” refer to the level of service analysis discussed in Chapter 2 and Appendix D. Expansion related costs labelled as “DC related” refer to projects identified in the Town’s Development Charge Background Study (please refer to Appendix G).

Table 5-7 summarizes the recommended strategy to finance the asset related costs identified in Table 5-6.

Table 5-7
Breakdown of Annual Water Funding (Revenue) by Source

Funding (Revenue) by Source	Forecast									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Rate Revenue	132,600	135,252	137,957	140,716	143,530	146,401	149,329	152,315	155,361	158,469
Grants	-	-	-	-	-	-	-	-	-	-
Other Contributions	-	-	-	-	-	-	-	-	-	-
Debentures	-	-	-	-	-	-	-	-	-	-
Development Charges Reserve Funds	-	-	-	-	-	-	-	285,023	-	-
Gas Tax Reserve Funds	-	-	-	-	-	-	-	-	-	-
Capital Reserve Fund	272,084	316,468	770,137	806,368	986,728	858,445	834,709	1,711,335	866,978	762,574
Total	404,684	451,720	908,094	947,084	1,130,258	1,004,845	984,038	2,148,673	1,022,339	921,043

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 portion of newly acquired or constructed assets that are “growth (DC) related” are shown as financed by development charges.

- The Town 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 Town 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 Town 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 Town's own available funding sources (i.e. using water rate revenue and debentures), increases in rates are required as outlined in the Town's Water Rate Study (i.e. 20% in 2014 and 5% thereafter). These increases reflect capital and operating related needs. 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 Town water rate revenue would decrease.

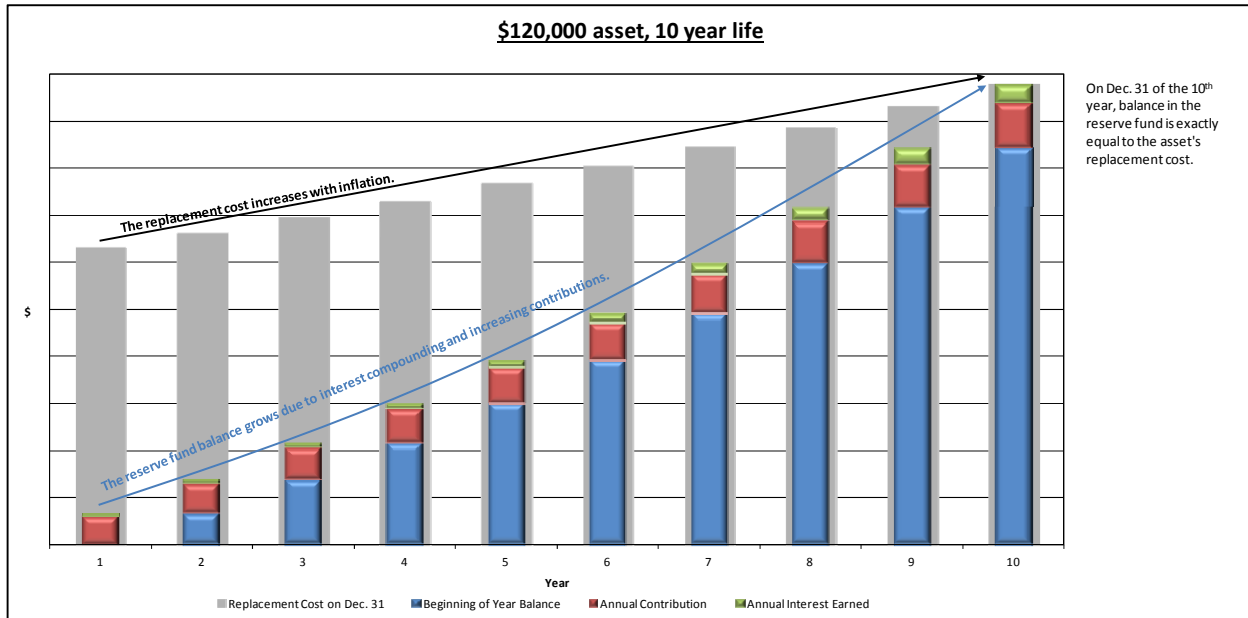
5.4 Funding Shortfall

Assuming the Town 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 Town 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 Town 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 \$5.09 million (in 2013 dollars). Based on the Town's 2013 budget, current annual capital investment is approximately \$1.00 million. This would provide a high level estimate of the Town's annual infrastructure funding deficit at \$4.09 million (in 2013 dollars).

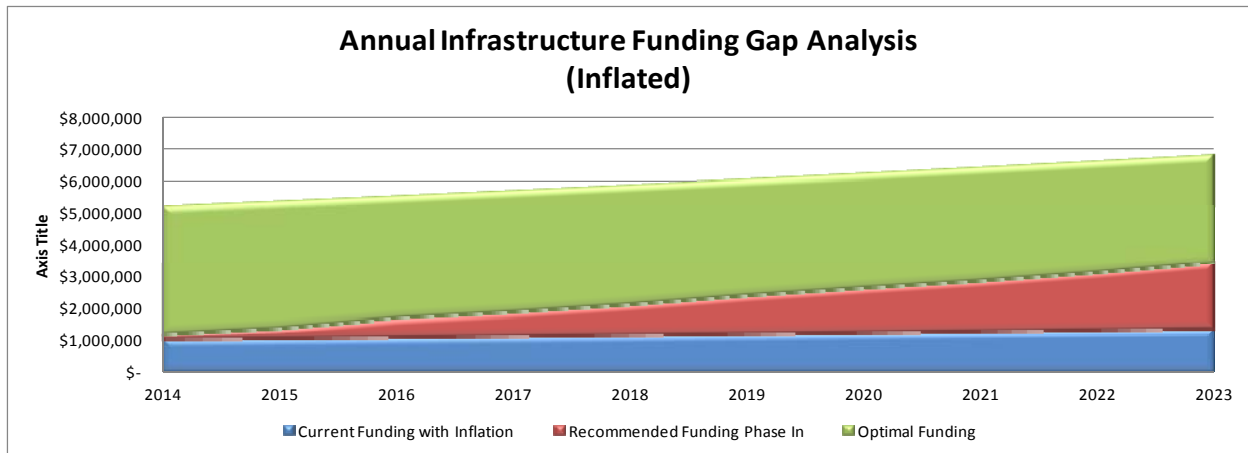
Water

From a water asset base perspective, the estimated annual sinking fund requirement, based on using the calculations discussed above, is approximately \$1.05 million (in 2013 dollars). Based on the Town's 2013 budget, current annual capital investment is approximately \$443,500 (an additional \$738,400 was received in grants). This would provide a high level estimate of the Town's annual infrastructure funding deficit at \$608,500 (in 2013 dollars).

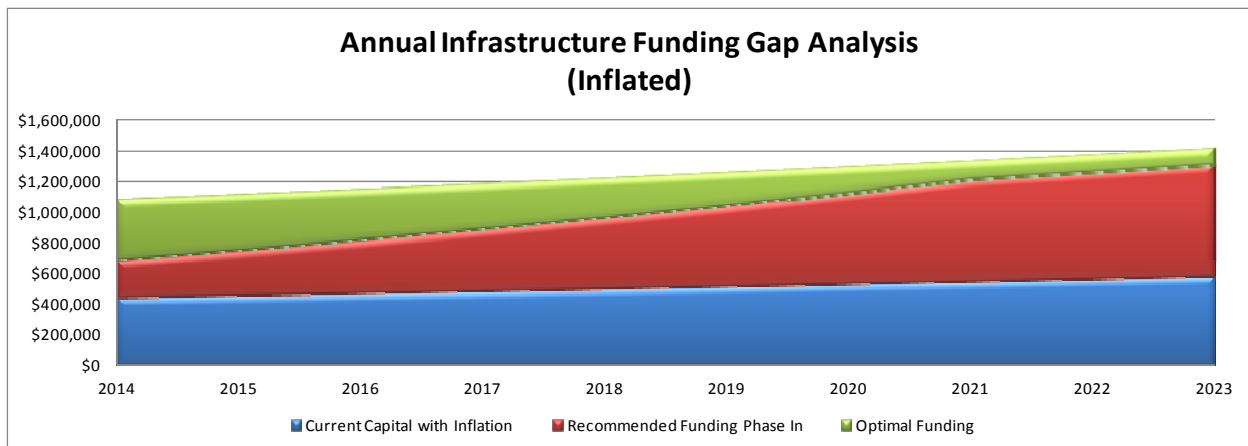
Under the recommended financing strategy, the Town would be making proactive attempts to mitigate these funding gaps over the forecast period. Please see Figures 5-3 and 5-4 below for a 10 year forecasts of implementing this strategy for tax supported and water assets respectively. The blue portion of the graph outlines the current capital investment amounts, increasing at inflation. 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) and G (water) 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**



To further mitigate the potential infrastructure funding deficit, the Town 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 Town’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;
- 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 Town of Erin 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 annually; and
- That this Asset Management plan be updated as needed over time to reflect the current priorities of the Town.

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

- Initiation of “level of service” (LOS) strategies discussed in Chapters 3, 4 and Appendix D.
- Consider an increase in taxation as part of upcoming budget deliberations, to be dedicated to capital, to be transferred to capital reserve(s).
- Water rate increases consistent with the Town’s Water Rate Study.

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 Town should pursue available capital grants wherever possible, to further reduce the infrastructure funding gap.

Through the creation of this plan, Town 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 Town 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

Town of Erin
2013 Asset Management Plan
Roads

Table with columns: Section Number, Item Description, Roadside, Material, Year Built, Road Base (Historical Cost, Accumulated Amortization, Net Book Value), Road Surface (Historical Cost, Accumulated Amortization, Net Book Value), State of the Infrastructure for Roads Report - 4 Roads Management Services Inc. (From Desc, To Desc, Length, Time of Need, Ph Cond, Improvement Cost, Replacement Cost), Assumed Road Base RC, Assumed Road Surface RC, AM Useful Life (Base), AM Useful Life (Surface), Asset Condition, Risk of Failure, Revised Replacement Year (Improvement Costs), Revised Remaining Useful Life. Includes a summary row for totals.

Town of Erin
2013 Asset Management Plan
Roads

Table with columns: Section Number, Item Description, Roadside, Material, Year Built, Road Base (Historical Cost, Accumulated Amortization, Net Book Value), Road Surface (Historical Cost, Accumulated Amortization, Net Book Value), State of the Infrastructure for Roads Report - 4 Roads Management Services Inc. (From Desc, To Desc, Length, Time of Need, Ph Cond, Improvement Cost, Replacement Cost), Assumed Road Base RC, Assumed Road Surface RC, AM Useful Life (Base), AM Useful Life (Surface), Asset Condition, Risk of Failure, Revised Replacement Year (Improvement Costs), Revised Remaining Useful Life.

Town of Erin
2013 Asset Management Plan
Facilities (Tax Supported)

Scenario 2

Bilding	Component Category	Component Description	Year Acquired	Historical Cost	Accumulated Ammortization	Net Book Value	Projected Service Life	Remaining Service Life	Estimated Age	Major Repair/ Replacement Cost	Total Replacement Cost	Condition Rating (Age Based)	Asset Condition	Probability of Failure	Consequence of Failure	Risk of Failure	Revised Replacement Year	Revised Remaining Useful Life
Erin Fire Hall	Exterior Cladding and Roofing	Metal Siding	1985				50	22	28	\$ 18,800		2	Average	Possible	Major	H	2035	22
Erin Fire Hall	Exterior Cladding and Roofing	Metal Roofing	1985				35	7	28	\$ 10,400		1	Poor	Likely	Major	H	2020	7
Erin Fire Hall	Interior Works	Ceramic Tile Flooring	1985				30	2	28	\$ 28,900		0	Very Poor	Almost Certain	Major	E	2015	2
Erin Fire Hall	Interior Works	Millwork Allowance	1985				30	2	28	\$ 10,000		0	Very Poor	Almost Certain	Major	E	2015	2
Erin Fire Hall	Mechanical/Electrical	Radiant Tube Heaters	2011				28	26	2	\$ 10,000		5	Very Good	Rare	Major	M	2039	26
Erin Fire Hall	Mechanical/Electrical	Emergency Generator Set	2009				30	26	4	\$ 96,800		4	Good	Unlikely	Major	M	2039	26
Erin Fire Hall	Mechanical/Electrical	HVAC & Hot Water Tank	2003				20	10	10	\$ 14,800		3	Average	Possible	Major	H	2023	10
Hillsburgh Fire Hall - Total			1970	\$ 83,146	\$ 83,146	\$ 0	40	0	43		\$ 2,217,000							
Hillsburgh Fire Hall	Structure	Structure	2012				100	99	1	\$ 1,611,500		5	Very Good	Rare	Major	M	2112	99
Hillsburgh Fire Hall	Doors and Windows	Overhead Doors	2012				20	19	1	\$ 22,000		5	Very Good	Rare	Major	M	2032	19
Hillsburgh Fire Hall	Doors and Windows	Hollow Metal Doors	2012				30	29	1	\$ 34,800		5	Very Good	Rare	Major	M	2042	29
Hillsburgh Fire Hall	Doors and Windows	Aluminum Doors	2012				30	29	1	\$ 29,300		5	Very Good	Rare	Major	M	2042	29
Hillsburgh Fire Hall	Doors and Windows	Aluminum Windows	2012				30	29	1	\$ 22,000		5	Very Good	Rare	Major	M	2042	29
Hillsburgh Fire Hall	Exterior Cladding and Roofing	Metal Siding	2012				50	49	1	\$ 181,000		5	Very Good	Rare	Major	M	2062	49
Hillsburgh Fire Hall	Exterior Cladding and Roofing	Metal Roofing	2012				35	34	1	\$ 31,600		5	Very Good	Rare	Major	M	2047	34
Hillsburgh Fire Hall	Exterior Cladding and Roofing	Flat Roofing (TPO)	2012				25	24	1	\$ 20,300		5	Very Good	Rare	Major	M	2037	24
Hillsburgh Fire Hall	Interior Finishes	Porcelain Tile Flooring	2012				30	29	1	\$ 39,300		5	Very Good	Rare	Major	M	2042	29
Hillsburgh Fire Hall	Interior Finishes	Paint	2012				10	9	1	\$ 20,000		5	Very Good	Rare	Major	M	2022	9
Hillsburgh Fire Hall	Interior Finishes	Millwork Allowance	2012				30	29	1	\$ 10,000		5	Very Good	Rare	Major	M	2042	29
Hillsburgh Fire Hall	Mechanical/Electrical	Elevator	2012				50	49	1	\$ 115,800		5	Very Good	Rare	Major	M	2062	49
Hillsburgh Fire Hall	Mechanical/Electrical	Lighting	2012				30	29	1	\$ 19,400		5	Very Good	Rare	Major	M	2042	29
Hillsburgh Fire Hall	Mechanical/Electrical	HVAC	2012				18	17	1	\$ 60,000		5	Very Good	Rare	Major	M	2030	17
Ballinacree Community Centre - Pavilion			1999				35	21	14	\$ 24,700	\$ 24,700	3	Average	Possible	Insignificant	L	2034	21
Ballinacree Community Centre - Storage Shed			2003				35	25	10	\$ 19,800	\$ 19,800	4	Good	Unlikely	Insignificant	L	2038	25
Ballinacree Community Centre - Community Centre			1974	\$ 203,289	\$ 151,212	\$ 52,077	100	61	39	\$ 789,600	\$ 789,600	3	Average	Possible	Minor	M	2074	61
Victoria Park Booth			1974	\$ 28,638	\$ 23,470	\$ 5,169	50	11	39	\$ 85,600	\$ 85,600	1	Poor	Likely	Insignificant	M	2024	11
Barbour Field - Pavilion			1996	\$ 74,665	\$ 29,866	\$ 44,799	50	33	17	\$ 218,800	\$ 218,800	3	Average	Possible	Insignificant	L	2046	33
McMillan Park - Pavilion			2008	\$ 155,570	\$ 15,557	\$ 140,013	50	45	5	\$ 41,800	\$ 41,800	5	Very Good	Rare	Insignificant	L	2058	45
Roads Cold Storage - Sand Dome			1983	\$ 173,622	\$ 130,216	\$ 43,405	40	10	30	\$ 141,000	\$ 141,000	1	Poor	Likely	Moderate	H	2023	10
Roads Cold Storage - Municipal Garage			1991	\$ 84,894	\$ 44,569	\$ 40,325	60	38	22	\$ 200,000	\$ 200,000	3	Average	Possible	Moderate	M	2051	38

Notes:
Year Acquired for structure has been estimated to be the year of acquisition of the oldest component.

Town Office - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																				
					2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
					YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20
1	Town Office																								
1.1	Doors and Windows																								
1.1.1	Vinyl Windows	25	19	\$ 58,200						\$ 58,200															
1.1.2	Entrance Doors and Rear Exit Doors Allowance	35	19	\$ 10,000															\$ 10,000						
1.2	Exterior Cladding and Roofing				\$ -																				
1.2.1	Sloped Roofing - Shingles	20	19	\$ 22,000			\$ 22,000																		
1.3	Interior Finishes				\$ -																				
1.3.1	Vinyl Tile Composite Flooring	30	17	\$ 16,300												\$ 16,300									
1.3.2	Carpet	20	17	\$ 32,400					\$ 32,400																
1.3.3	Paint	10	17	\$ 16,000						\$ 16,000						\$ 16,000									
1.3.4	Hollow Core Wood Doors & Sidelites	35	17	\$ 41,600																\$ 41,600					
1.3.5	Millwork Allowance	30	17	\$ 86,400												\$ 86,400									
1.4	Mechanical/Electrical				\$ -																				
1.4.1	Plumbing Fixtures Allowance	30	17	\$ 10,000												\$ 10,000									
1.4.2	Emergency Generator Set	25	3	\$ 94,000																					
1.4.2	Interior Lighting Allowance	30	17	\$ 94,100												\$ 94,100									
1.4.3	HVAC & Hot Water Tank	20	19	\$ 30,000		\$ 30,000																			
TOTALS (non-factored)				\$ 511,000	\$ -	\$ 30,000	\$ -	\$ 22,000	\$ -	\$ 32,400	\$ 58,200	\$ 16,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 222,800	\$ -	\$ -	\$ 10,000	\$ -	\$ 41,600	\$ -	\$ -
Inflation Factor				3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806
TOTALS (factored)					\$ -	\$ 30,900	\$ -	\$ 24,040	\$ -	\$ 37,560	\$ 69,494	\$ 19,678	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 327,189	\$ -	\$ -	\$ 16,047	\$ -	\$ 70,821	\$ -	\$ -

Length of Projection (years)	30
Approximate Total GFA	11,522
Opinion of Cost for Complete Demolition and Replacement	\$ 3,260,000
Opinion of Total Useful Life	75

Average Cost PSF per Year (non-factored)	\$ 0.74
Approximate Cost PSF per Year (factored)	\$ 2.80
Average Replacement Cost PSF	\$ 282.94
Average Replacement Cost PSF per Year	\$ 3.77

Assumptions:
 Half of all interior finishes are 19 years old, half are 14 years old. Average age = 17 years.
 HVAC and Lighting costs based on SF costs for municipal admin/office bldg.

Drawings Used:
 D.J. Peach & Associates Ltd. Dwgs. 1 thru 3, May 1994

Roads Equipment Depot - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																			
					2013 YEAR 0	2014 YEAR 1	2015 YEAR 2	2016 YEAR 3	2017 YEAR 4	2018 YEAR 5	2019 YEAR 6	2020 YEAR 7	2021 YEAR 8	2022 YEAR 9	2023 YEAR 10	2024 YEAR 11	2025 YEAR 12	2026 YEAR 13	2027 YEAR 14	2028 YEAR 15	2029 YEAR 16	2030 YEAR 17	2031 YEAR 18	2032 YEAR 19
2	Roads Equipment Depot																							
2.1	Doors and Windows			\$ 53,700																				
2.1.1	Insulated Overhead Doors	20	6	\$ 53,700																				
2.1.2	Windows	30	40	\$ 19,600														\$ 53,700					\$ 19,600	
2.2	Exterior Cladding and Roofing			\$ -																				
2.2.1	Metal Siding	50	21	\$ 32,200																				
2.2.2	Flat Roofing (4-Ply BUR)	41	40	\$ 93,500		\$ 93,500																		
2.3	Interior Finishes			\$ -																				
2.3.1	Metal Roof/Wall Liner	55	40	\$ 43,000															\$ 43,000					
2.4	Mechanical/Electrical			\$ -																				
2.4.1	HVAC	18	40	\$ 40,000														\$ 40,000						
2.4.2	Lighting	30	40	\$ 55,600																			\$ 55,600	
TOTALS (non-factored)				\$ 337,600	\$ -	\$ 93,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 93,700	\$ 43,000	\$ -	\$ -	\$ -	\$ 19,600	
Inflation Factor				3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	
TOTALS (factored)					\$ -	\$ 96,305	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 141,730	\$ 66,993	\$ -	\$ -	\$ -	\$ 35,400	

Length of Projection (years)	30
Approximate Total GFA	7,419
Opinion of Cost for Complete Demolition and Replacement	\$ 2,387,000
Opinion of Total Useful Life	75

Average Cost PSF per Year (non-factored)	\$ 1.27
Approximate Cost PSF per Year (factored)	\$ 1.87
Average Replacement Cost PSF	\$ 321.74
Average Replacement Cost PSF per Year	\$ 4.29

Assumptions:
 HVAC & Lighting costs based on SF costs for Vehicle Maintenance Bldg
 BUR life expectancies are longer than typically anticipated based on replacement history provided by client.

Drawings Used:
 Gamsby and Mannerow Ltd. dwgs 1 thru 7, June 1973

Water Hydro Building - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																				
					2013 YEAR 0	2014 YEAR 1	2015 YEAR 2	2016 YEAR 3	2017 YEAR 4	2018 YEAR 5	2019 YEAR 6	2020 YEAR 7	2021 YEAR 8	2022 YEAR 9	2023 YEAR 10	2024 YEAR 11	2025 YEAR 12	2026 YEAR 13	2027 YEAR 14	2028 YEAR 15	2029 YEAR 16	2030 YEAR 17	2031 YEAR 18	2032 YEAR 19	2033 YEAR 20
3	Water Hydro Building																								
3.1	Doors and Windows				\$ -																				
3.1.1	Overhead Doors	30	23	\$ 26,800								\$ 26,800													
3.1.2	Hollow Metal Doors	30	23	\$ 15,000								\$ 15,000													
3.1.3	Solid Core Wood Doors	35	23	\$ 14,400												\$ 14,400									
3.2	Exterior Cladding and Roofing				\$ -																				
3.2.1	Metal Siding & Fascia	50	23	\$ 23,100																					
3.2.2	Metal Roofing	35	23	\$ 14,900												\$ 14,900									
3.3	Interior Finishes				\$ -																				
3.3.1	Steel Roof Liner in Garage	50	23	\$ 14,000																					
3.4	Mechanical/Electrical				\$ -																				
3.4.1	Lighting	30	23	\$ 37,700								\$ 37,700													
3.4.2	HVAC & Hot Water Tank	20	3	\$ 14,800																	\$ 14,800				
TOTALS (non-factored)				\$ 160,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 79,500	\$ -	\$ -	\$ -	\$ -	\$ 29,300	\$ -	\$ -	\$ -	\$ -	\$ 14,800	\$ -	\$ -	\$ -
Inflation Factor				3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806
TOTALS (factored)					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 97,775	\$ -	\$ -	\$ -	\$ -	\$ 41,775	\$ -	\$ -	\$ -	\$ -	\$ 24,462	\$ -	\$ -	\$ -

Length of Projection (years)	30
Approximate Total GFA	5,032
Opinion of Cost for Complete Demolition and Replacement	\$ 1,424,000
Opinion of Total Useful Life	75

Average Cost PSF per Year (non-factored)	\$ 1.06
Approximate Cost PSF per Year (factored)	\$ 1.63
Average Replacement Cost PSF	\$ 282.99
Average Replacement Cost PSF per Year	\$ 3.77

Assumptions:
 All items with the exception of HVAC and hot water heater are original.
 Metal wall liner is assumed to have same life expectancy as the building.

Drawings Used:
 Landmark Builders dwgs 1 thru 5 & E1, November 1989

Hillsburgh Community Centre - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																					
					2013 YEAR 0	2014 YEAR 1	2015 YEAR 2	2016 YEAR 3	2017 YEAR 4	2018 YEAR 5	2019 YEAR 6	2020 YEAR 7	2021 YEAR 8	2022 YEAR 9	2023 YEAR 10	2024 YEAR 11	2025 YEAR 12	2026 YEAR 13	2027 YEAR 14	2028 YEAR 15	2029 YEAR 16	2030 YEAR 17	2031 YEAR 18	2032 YEAR 19	2033 YEAR 20	
4	Hillsburgh Community Centre																									
4.1	Doors and Windows				\$ -																					
4.1.1	Overhead Doors	40	38	\$ 10,000			\$ 10,000																			
4.1.2	Hollow Metal Doors	40	38	\$ 15,000			\$ 15,000																			
4.1.3	Aluminum Doors	40	22	\$ 14,700																		\$ 14,700				
4.2	Exterior Cladding and Roofing				\$ -																					
4.2.1	Metal Siding	50	38	\$ 52,000											\$ 52,000											
4.2.2	Metal Roofing	32	5	\$ 35,500																						
4.2.3	Flat Roofing (3-Ply BUR)	35	3	\$ 42,000																						
4.3	Interior Works				\$ -																					
4.3.1	Ice Rink Floor	25	13	\$ 217,000											\$ 217,000											
4.3.2	Hockey Boards	32	6	\$ 150,000		\$ 75,000																				
4.3.3	Dressing Room Floor - Rubber Flooring	25	2	\$ 25,000																						
4.3.4	Lobby Floor - Rubber Flooring	25	11	\$ 30,900																	\$ 30,900					
4.3.5	Second Floor Hall - Vinyl Tile Flooring	40	38	\$ 25,700			\$ 25,700																			
4.3.6	Millwork Allowance - Second Floor and Concessions	40	38	\$ 10,000			\$ 10,000																			
4.3.7	Paint	40	39	\$ 10,000		\$ 10,000																				
4.3.8	Second Floor Hall - Suspended Tile Ceiling	40	38	\$ 15,400			\$ 15,400																			
4.4	Mechanical/Electrical				\$ -																					
4.4.1	Lighting	33	27	\$ 125,000						\$ 125,000																
4.4.2	Fire Alarm/Life Safety Systems/Emergency & Exit Lighting	40	38	\$ 40,000			\$ 40,000																			
4.4.3	Plumbing Fixtures Allowance	40	38	\$ 10,000			\$ 10,000																			
4.4.4	HVAC	18	38	\$ 118,600																\$ 118,600						
4.4.5	Refrigeration Plant	25	11	\$ 407,100																			\$ 407,100			
TOTALS (non-factored)					\$ 1,353,900	\$ -	\$ 85,000	\$ 126,100	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 269,000	\$ -	\$ 30,900	\$ -	\$ 118,600	\$ -	\$ 14,700	\$ -	\$ 407,100
Inflation Factor					3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806
TOTALS (factored)					\$ -	\$ 87,550	\$ 133,779	\$ -	\$ -	\$ -	\$ 149,257	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 383,530	\$ -	\$ 46,739	\$ -	\$ 190,318	\$ -	\$ 25,026	\$ -	\$ 735,268

Length of Projection (years)	30
Approximate Total GFA	23,815
Opinion of Cost for Complete Demolition and Replacement	\$ 6,000,000
Opinion of Total Useful Life	100

Average Cost PSF per Year (non-factored)	\$ 1.68
Approximate Cost PSF per Year (factored)	\$ 2.52
Average Replacement Cost PSF	\$ 251.94
Average Replacement Cost PSF per Year	\$ 2.52

Assumptions:
 Refrigeration Plant has only been replaced once.
 Lobby Flooring has only been replaced once.
 Dressing Room Flooring has only been replaced once.
 Metal Roofing has only been replaced once.
 Metal Siding has never been replaced.
 Hollow Metal Doors have never been replaced.
 Overhead Doors have never been replaced.
 1 half of hockey boards replaced in 2000, 2nd half to be replaced in 2014...
 avg year of replacement = 2007
 Suspended Tile Ceiling on second floor of community centre
 Vinyl Tile flooring on second floor of community centre
 BUR life expectancies are longer than typically anticipated based on replacement history provided by client.
 Township plans that HCC will no longer be utilised after 2042. Metal roofing and hockey boards assumed to last until demolition.
 Lighting planned to be replaced in 2019

Drawings used:
 November 2010 fire safety plan
 James Fryett Architect dwgs A1, August 1998
 James Fryett Architect dwgs A3 & A4, July 2001

Centre 2000 - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																				
					2013 YEAR 0	2014 YEAR 1	2015 YEAR 2	2016 YEAR 3	2017 YEAR 4	2018 YEAR 5	2019 YEAR 6	2020 YEAR 7	2021 YEAR 8	2022 YEAR 9	2023 YEAR 10	2024 YEAR 11	2025 YEAR 12	2026 YEAR 13	2027 YEAR 14	2028 YEAR 15	2029 YEAR 16	2030 YEAR 17	2031 YEAR 18	2032 YEAR 19	2033 YEAR 20
5	Centre 2000																								
5.1	Doors and Windows				\$ -																				
5.1.1	Hollow Metal Doors - 1977	40	36	\$ 75,000					\$ 75,000																
5.1.2	Hollow Metal Doors - 2000	40	11	\$ 88,750																					
5.1.3	Hollow Metal Doors - 2010 Addition	40	3	\$ 52,500																					
5.1.4	Aluminum Doors	40	21	\$ 24,500																			\$ 24,500		
5.2	Exterior Cladding and Roofing				\$ -																				
5.2.1	Metal Siding	50	36	\$ 52,000													\$ 52,000								
5.2.2	Metal Roofing - Arena	40	36	\$ 35,500					\$ 35,500																
5.2.3	Flat Roofing (Ballasted EPDM) - 2010 Addition	25	3	\$ 15,300																					
5.2.4	Flat Roofing (BUR) - Original Community Centre	39	36	\$ 50,000				\$ 50,000																	
5.2.5	Flat Roofing (BUR) - Multi-Use Facility	40	11	\$ 50,000																					
5.3	Interior Works				\$ -																				
5.3.1	Ice Rink Floor	25	11	\$ 217,000																		\$ 217,000			
5.3.2	Hockey Boards	25	11	\$ 150,000														\$ 150,000							
5.3.3	Rubber Flooring	25	3	\$ 35,200																					
5.3.4	Paint- Original Community Centre	30	21	\$ 10,000								\$ 10,000													
5.3.5	Zamboni Room and Shower Flooring - Stonhard	35	1	\$ 35,000																					
5.3.6	Millwork Allowance	30	21	\$ 10,000								\$ 10,000													
5.3.7	Carpet - Shamrock Room	40	21	\$ 10,000																			\$ 10,000		
5.3.8	Vinyl Tile Flooring - Original Community Centre	40	21	\$ 26,700																			\$ 26,700		
5.3.9	Shamrock Room - Suspended Tile Ceiling	40	21	\$ 30,800																			\$ 30,800		
5.4	Mechanical/Electrical				\$ -																				
5.4.1	Handicapped Elevator	30	21	\$ 115,800								\$ 115,800													
5.4.2	Fire Alarm/Life Safety Systems/Emergency & Exit Lighting	40	36	\$ 40,000					\$ 40,000																
5.4.3	Plumbing Fixtures Allowance	40	36	\$ 10,000					\$ 10,000																
5.4.4	HVAC	19	36	\$ 118,600			\$ 118,600																		
5.4.5	Lighting	40	36	\$ 125,000					\$ 125,000																
5.4.6	Refrigeration Plant	25	11	\$ 407,100																		\$ 407,100			
TOTALS (non-factored)				\$ 1,784,750	\$ -	\$ -	\$ 118,600	\$ 50,000	\$ 285,500	\$ -	\$ -	\$ -	\$ -	\$ 135,800	\$ -	\$ -	\$ -	\$ -	\$ 52,000	\$ 150,000	\$ 217,000	\$ -	\$ 407,100	\$ 92,000	\$ -
Inflation Factor				3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806
TOTALS (factored)					\$ -	\$ -	\$ 125,823	\$ 54,636	\$ 321,333	\$ -	\$ -	\$ -	\$ -	\$ 177,188	\$ -	\$ -	\$ -	\$ -	\$ 78,655	\$ 233,695	\$ 348,221	\$ -	\$ 693,060	\$ 161,323	\$ -

Length of Projection (years)	30
Approximate Total GFA	40,862
Opinion of Cost for Complete Demolition and Replacement	\$ 10,300,000
Opinion of Total Useful Life	100

Average Cost PSF per Year (non-factored)	\$ 1.48
Approximate Cost PSF per Year (factored)	\$ 2.32
Average Replacement Cost PSF	\$ 252.07
Average Replacement Cost PSF per Year	\$ 2.52

Drawings Used:

Landmark Builders dwgs A1 thru A5 - August 1992
 Insurance Drawing July 2009
 Multi-Use Facility Ground Floor Plan, undated
 Triton Engineering Services Limited dwgs 10-01, 10-02, 20-01, 20-02, 30-01 thru 30-06, 50-01, 60-01 thru 60-03, 70-01 thru 70-03, March 2010
 Transway dwgs 1 thru 4, 6 thru 10, E1 thru E3, M1 thru M4, June 1977

Assumptions:

Interior Doors at Community Centre and Multi-Use Facility assumed to be hollow metal
 Hockey Boards, Ice Rink Floor, and Refrigeration Plant assumed to have been replaced at least once in the past, based on similar replacements at H.C.C.
 Built-Up-Roofing assumed at Multi-Use Facility
 Millwork assumed to have been replaced in 1992 renovations.
 Built-Up-Roofing assumed at Multi-Use Facility
 Millwork assumed to have been replaced in 1992 renovations.
 Vinyl Tile Flooring assumed in original community centre, and assumed to have been replaced during 1992 renovations.
 Suspended Tile Ceiling assumed in Shamrock Room
 Shamrock Room Roof planned for half replacement 2016, assume remainder in 2018.
 GFA = 23,315 Arena + 15,730 Community Centre + 50% (3,635) theatre
 BUR life expectancies are longer than typically anticipated based on replacement history provided by client.
 Interior finishes and theatre seating at 2000 addition are not covered in this spreadsheet at the request of client.

Erin Fire Hall - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																				
					2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
					YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20
6	Erin Fire Hall																								
6.1	Doors and Windows				\$ -																				
6.1.1	Overhead Doors	34	28	\$ 26,850		\$ 8,950					\$ 17,900														
6.1.2	Exterior Entrance/Exit Doors and Windows	35	28	\$ 12,000							\$ 12,000														
6.2	Exterior Cladding and Roofing				\$ -																				
6.2.1	Metal Siding	50	28	\$ 18,800																					
6.2.2	Metal Roofing	35	28	\$ 10,400							\$ 10,400														
6.3	Interior Works				\$ -																				
6.3.1	Ceramic Tile Flooring	30	28	\$ 28,900	\$ -		\$ 28,900																		
6.3.2	Millwork Allowance	30	28	\$ 10,000	\$ -		\$ 10,000																		
6.4	Mechanical/Electrical				\$ -																				
6.4.1	Radiant Tube Heaters	28	2	\$ 10,000																					
6.4.2	Emergency Generator Set	30	4	\$ 96,800																					
6.4.3	HVAC & Hot Water Tank	20	10	\$ 14,800									\$ 14,800												
TOTALS (non-factored)				\$ 228,550	\$ -	\$ 8,950	\$ 38,900	\$ -	\$ -	\$ -	\$ 17,900	\$ 22,400	\$ -	\$ -	\$ 14,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			
Inflation Factor				3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806
TOTALS (factored)					\$ -	\$ 9,219	\$ 41,269	\$ -	\$ -	\$ -	\$ 21,374	\$ 27,549	\$ -	\$ -	\$ 19,890	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

Length of Projection (years)	30
Approximate Total GFA	4,800
Opinion of Cost for Complete Demolition and Replacement	\$ 3,000,000
Opinion of Total Useful Life	50

Average Cost PSF per Year (non-factored)	\$ 0.71
Approximate Cost PSF per Year (factored)	\$ 0.83
Average Replacement Cost PSF	\$ 625.00
Average Replacement Cost PSF per Year	\$ 12.50

Assumptions:
 HVAC/Hot Water Tank same cost as Water-Hydro bldg (Roughly same size building. Assumed to have been replaced at least once over life of building.
 Avg. year of replacement for overhead doors is 2017. One door planned for replacement in 2014, 2 in 2019.
 Township plans that Erin will have a new firehall after year 21. Millwork, Ceramic Tile Flooring to remain in present condition. Metal siding is not planned to be replaced. Projected service life of radiant tube heaters, gen-set, and next cycle of HVAC exceed the lifespan of the building. Metal roof and wall liner not anticipated to be replaced prior to full replacement of the building.
 Opinion of replacement cost is the recommendation of the Fire Chief, and does not include any land acquisition.

Drawings used:
 Gamsby and Mannerow Limited dwgs 1-3, August 1983

Hillsburgh Fire Hall - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Major Repair/ Replacement Cost	Annual Replacement Reserve Costs																					
					2013 YEAR 0	2014 YEAR 1	2015 YEAR 2	2016 YEAR 3	2017 YEAR 4	2018 YEAR 5	2019 YEAR 6	2020 YEAR 7	2021 YEAR 8	2022 YEAR 9	2023 YEAR 10	2024 YEAR 11	2025 YEAR 12	2026 YEAR 13	2027 YEAR 14	2028 YEAR 15	2029 YEAR 16	2030 YEAR 17	2031 YEAR 18	2032 YEAR 19	2033 YEAR 20	
7	Hillsburgh Fire Hall																									
7.1	Doors and Windows				\$ -																					
7.1.1	Overhead Doors	20	1	\$ 22,000																						
7.1.2	Hollow Metal Doors	30	1	\$ 34,800																				\$ 22,000		
7.1.3	Aluminum Doors	30	1	\$ 29,300																						
7.1.4	Aluminum Windows	30	1	\$ 22,000																						
7.2	Exterior Cladding and Roofing				\$ -																					
7.2.1	Metal Siding	50	1	\$ 181,000																						
7.2.2	Metal Roofing	35	1	\$ 31,600																						
7.2.3	Flat Roofing (TPO)	25	1	\$ 20,300																						
7.3	Interior Finishes				\$ -																					
7.3.2	Porcelain Tile Flooring	30	1	\$ 39,300																						
7.3.3	Paint	10	1	\$ 20,000																						
7.3.4	Millwork Allowance	30	1	\$ 10,000																				\$ 20,000		
7.4	Mechanical/Electrical				\$ -																					
7.4.1	Elevator	50	1	\$ 115,800																						
7.4.2	Lighting	30	1	\$ 19,400																						
7.4.3	HVAC	18	1	\$ 60,000																				\$ 60,000		
TOTALS (non-factored)				\$ 605,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ 42,000	\$ -
Inflation Factor				3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806	
TOTALS (factored)					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,095	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 99,171	\$ -	\$ 73,647	\$ -

Length of Projection (years)	30
Approximate Total GFA	10,334
Opinion of Cost for Complete Demolition and Replacement	\$ 2,217,000
Opinion of Total Useful Life	100

Average Cost PSF per Year (non-factored)	\$ 1.02
Approximate Cost PSF per Year (factored)	\$ 2.10
Average Replacement Cost PSF	\$ 214.53
Average Replacement Cost PSF per Year	\$ 2.15

Drawings used:
 Somfay Masri Architects Inc. dwgs A0, A0.1, A1.0 thru A1.2, A2.1 thru A2.3, A3.1, A4.1, A4.2, A5.1, A6.1 thru A6.3, A7.1, A9.1, July 2011

Small Buildings - Capital Cost Plan

Item No.	Item Description	Projected Service Life	Estimated Age	Demo. Cost	Rebuild Cost	Total Cost	Annual Replacement Reserve Costs																				
							2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
							YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20
8	Small Buildings																										
8.1	Ballinacorney Community Centre																										
8.1.1	Pavilion	35	14	\$ 4,300	\$ 24,700	\$ 29,000																					
8.1.2	Storage Shed	35	10	\$ 2,500	\$ 19,800	\$ 22,300																					
8.1.3	Community Centre	100	39	\$ 58,200	\$ 789,600	\$ 847,800																					
8.2	Victoria Park Booth					\$ -	\$ -																				
8.2.1	Snack Bar/Washrooms/Garage	50	39	\$ 13,800	\$ 85,600	\$ 99,400									\$ 13,800												
8.3	Barbour Field					\$ -	\$ -																				
8.3.1	Pavilion	50	17	\$ 37,800	\$ 218,800	\$ 256,600																					
8.4	McMillan Park					\$ -	\$ -																				
8.4.1	Pavilion	50	5	\$ 5,300	\$ 41,800	\$ 47,100																					
8.5	Roads Cold Storage					\$ -	\$ -																				
8.5.1	Sand Dome	40	30	\$ 22,000	\$ 141,000	\$ 163,000								\$ 22,000													
8.5.2	Municipal Garage	60	22	\$ 50,200	\$ 200,000	\$ 250,200																					
TOTALS (non-factored)						\$ 1,715,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,000	\$ 13,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Inflation Factor						3.0%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605				
TOTALS (factored)							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 29,566	\$ 19,102	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			

Length of Projection (years)	30
Approximate Total GFA	12,728

Average Cost PSF per Year (non-factored)	\$ 0.23
Approximate Cost PSF per Year (factored)	\$ 0.39

Assumptions

Victoria Park Booth will be demolished at end of service life, and replaced with washrooms only. (See Planned Actions & Expansions)

Sand Dome will be demolished at end of service life, and replaced with new salt/sand storage facility in year 7 (See Planned Actions & Expansions)

APPENDIX B
ASSET MANAGEMENT ASSUMPTIONS

APPENDIX B: ASSET MANAGEMENT PLAN ASSUMPTIONS

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

1. STATE OF LOCAL INFRASTRUCTURE

- a) Indexing: When inflating an asset value to a 2013 replacement value, the Non-Residential Building Construction Price Index (NRBCPI) was used for Road, Bridge/Culvert and Building related assets. Other assets (equipment, vehicles, and land improvements, etc.) were inflated using the Consumer Price Index (CPI). Two indexes were used to account for the difference between construction related assets and assets that are more consumer in nature.
- b) 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 Town follow the "Condition Assessment Policy" shown in Appendix C in the future.
- c) Information from various engineer firm (referenced in this report) were used to support the Town's asset data. Please see pages B-2 and B-3 for water assumptions used by Triton Engineering.

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 Town'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 1.0% 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.

WATERMAIN

1. Condition Assessment

Based on age and pipe material (High Score - Good; Low Score - Not Good)

AGE: (Score 1 to 5)

- 1 > 50 yrs.
- 2 30 to 50 yrs.
- 3 15 to 30 yrs.
- 4 5 to 15 yrs.
- 5 < 5 yrs.

PIPE MATERIAL: (Score 1 to 5)

- Cast Iron / Asbestos Cement / Steel 1
- Ductile Iron / PVC (TW) 3
- PVC / PE 5

Therefore a 50 year old cast iron watermain would score 2 while a five (5) year old PVC would score 8.

2. Risk Management

Based on hydraulic capacity (acceptable or not); trunk versus local main; is it a river crossing; and serviced land use.

- i) Hydraulic Capacity: Deficient 1
(Score 1 or 5) Not Deficient 5
- ii) Trunk versus Local: Local 5
(Score 1 or 5) Trunk 1
- iii) River Crossing: Yes 1
(Score 1 or 5) No 5
- iv) Serviced Land Use: Health Care Services/EMO 1
(Score 1 to 5) Educational Facility 2
Government Facility 3
Commercial/Industrial 4
Residential 5

WATER FACILITIES

1. Condition Assessment

Based on individual components identified in PSAB

Factors:

AGE: (Average)	1	> 50 yrs.
	2	30 to 50 yrs.
	3	15 to 30 yrs.
	4	5 to 30 yrs.
	5	< 5 yrs.

HISTORIC MAINTENANCE COST:

1	High
3	Average
5	Low

FREQUENCY OF FACILITY OFF LINE: (last five (5) years)

5	0
3	1-5
1	> 5

STANDBY POWER:

5	Full Time
3	Portable
1	None

Therefore, a pumping station (well) that is 40 years old, has high maintenance costs, has been off line seven (7) times in the last five years, and does not have standby power would score 9.

2. Risk Management

i)	Likelihood of Failure:	Remote	5
		Moderate	3
		Good	1

ii) Severity of Failure:
(Environmental, Public Health and Safety, Financial and Public Perception)

Minimal	5
Moderate	3
Significant	1

Therefore, a pumping station (well) that has a good likelihood of failure with a significant severity of failure would score 2.

APPENDIX C
DATA VERIFICATION AND CONDITION ASSESSMENT
POLICY

APPENDIX C

Town of Erin Data Verification and Condition Assessment Policy

Data Verification

1. The main source of asset data updating and editing will be through the Town's PSAB 3150 compliance procedures.
2. Asset additions, disposals, betterments, and write-offs will be recorded based on the Town's PSAB 3150 Compliance Policies.
3. Verification of the correct treatment of asset revisions will be completed through frequent annual reviews by the Town's Treasurer as well as an annual review by the Town'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 through 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 Town 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 Town's specifications; and
 - Remaining service life, assuming current maintenance and usage levels.

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 and Equipment	Annually (typically by Town staff), part of maintenance program
Water Related	Every 5 years, based on applicable legislation

APPENDIX D
LEVEL OF SERVICE IMPACT ANALYSIS

Town of Erin
2013 Asset Management Plan
Asset Management Strategy - Change in Level of Service

Table D-1
Tax Supported Services

Departments	Description	Planned Actions	Impact (2013\$)	Impact (2013 \$)																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
General Government																							
Expenditures																							
Capital Expenditures	Town Office - Addition	Expansion	1,250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,250,000	
Capital Expenditures	Town Office - Accessibility Renovations for Basement	Rehabilitation/Renewal	20,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Expenditures			1,270,000	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,250,000	
Protection to Persons and Property																							
Expenditures																							
Operating Expenditures																							
Capital Expenditures	Hillsburgh Fire Hall - Emergency Generator	Expansion	67,800	67,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Expenditures			67,800	67,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Transportation Services																							
Expenditures																							
Building Maintenance	Sand Dome Demolition	Maintenance	22,000	-	-	-	-	-	-	-	-	-	22,000	-	-	-	-	-	-	-	-	-	
Building Maintenance and Rehabilitation	Roads Equipment Depot - Additional Bay	Expansion	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250,000	-	-	-	-	
Building Maintenance and Rehabilitation	Roads Equipment Depot - Accessibility Renovations	Rehabilitation/Renewal	10,000	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bridge Maintenance	Bridge Maintenance and Rehabilitation	Rehabilitation/Renewal	737,500	18,000	79,944	79,944	79,944	79,944	79,944	79,944	79,944	79,944	79,944	-	-	-	-	-	-	-	-	-	
Culvert Maintenance	Culvert Maintenance and Rehabilitation	Rehabilitation/Renewal	2,146,000	125,000	224,556	224,556	224,556	224,556	224,556	224,556	224,556	224,556	224,556	-	-	-	-	-	-	-	-	-	
Culvert Rehabilitation	Culvert 2061 Design	Rehabilitation/Renewal	190,280	190,280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Streetlight Rehabilitation	Streetlights	Rehabilitation/Renewal	60,000	-	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sidewalks	New Sidewalk - Wellington Rd 124	Expansion	280,000	-	-	280,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Road Maintenance	Crack Sealing	Maintenance	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	
Road Maintenance	Gravel Road Resurfacing	Rehabilitation/Renewal	800,000	40,000	80,000	120,000	160,000	200,000	240,000	280,000	320,000	360,000	400,000	440,000	480,000	520,000	560,000	600,000	640,000	680,000	720,000	800,000	
Total Expenditures			4,520,480	407,980	469,200	729,200	489,200	529,200	569,200	609,200	649,200	689,200	751,200	464,700	504,700	544,700	584,700	624,700	664,700	704,700	744,700	824,700	
Recreation/Cultural Services																							
Expenditures																							
Operating Expenditures	Demolition - Victoria Park Booth - Snack Bar/Washrooms/Garage	Rehabilitation/Renewal	13,800	-	-	-	-	-	-	-	-	-	-	13,800	-	-	-	-	-	-	-	-	
Building Maintenance and Rehabilitation	Hillsburgh Community Centre - Accessibility Renovations for Viewing Area	Rehabilitation/Renewal	15,000	-	15,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Building Maintenance and Rehabilitation	Centre 2000 - Emergency Generator	Expansion	90,400	-	-	90,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Building Maintenance and Rehabilitation	Victoria Park Washroom Facilities	Rehabilitation/Renewal	40,000	-	-	-	-	-	-	-	-	-	-	40,000	-	-	-	-	-	-	-	-	
Total Expenditures			159,200	-	15,000	90,400	-	-	-	-	-	-	53,800	-	-	-	-	-	-	-	-	-	
Grand Total Expenditures (Uninflated)			6,017,480	495,780	484,200	819,600	489,200	529,200	569,200	609,200	649,200	689,200	751,200	518,500	504,700	544,700	584,700	624,700	664,700	704,700	744,700	2,074,700	

Total Operating Expenditures (Uninflated)	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700	24,700
Total Capital Expenditures (Uninflated)	471,080	459,500	794,900	464,500	504,500	544,500	584,500	624,500	664,500	704,500	744,500	784,500	824,500	864,500	904,500	944,500	984,500	1,024,500	1,064,500	1,104,500	1,144,500	1,184,500
Total Operating Expenditures (Inflated)	25,194	25,698	26,212	26,736	27,271	27,816	28,373	28,940	29,519	30,111	30,711	31,326	31,952	32,591	33,243	33,908	34,586	35,278	35,983	36,703	37,438	38,183
Total Capital Expenditures (Inflated)	485,212	487,484	868,609	522,799	584,854	650,161	718,861	791,098	867,022	946,789	1,031,296	1,114,246	1,200,535	1,291,272	1,386,559	1,486,896	1,592,292	1,703,748	1,821,264	1,944,941	2,074,780	2,210,863

Planned Actions Summary	Impact (Inflated)																				
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Maintenance	25,194	25,698	26,212	26,736	27,271	27,816	28,373	28,940	29,519	30,111	30,711	31,326	31,952	32,591	33,243	33,908	34,586	35,278	35,983	36,703	37,438
Rehabilitation/Renewal	415,378	487,484	463,863	522,799	584,854	650,161	718,861	791,098	867,022	946,789	1,031,296	1,114,246	1,200,535	1,291,272	1,386,559	1,486,896	1,592,292	1,703,748	1,821,264	1,944,941	2,074,780
Replacement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansion	69,834	-	404,746	-	-	-	-	-	-	-	-	-	-	-	389,492	-	-	-	-	-	2,257,639
Grand Total (Inflated)	510,406	513,182	894,821	549,535	612,125	677,977	747,234	820,038	896,541	1,003,716	1,114,246	1,230,291	1,351,094	1,476,842	1,608,141	1,745,996	1,890,240	2,041,746	2,200,224	2,365,684	2,538,519

Notes:
The Hillsburgh Community Centre is due for a complete replacement (\$6,000,000) in 2042
The Erin Fire Hall is due for a complete replacement (\$3,000,000) in 2034

Town of Erin
2013 Asset Management Plan
Asset Management Strategy - Change in Level of Service

Table D-2
Water Services

Departments	Description	Planned Actions	Impact (2013\$)	Impact (2013 \$)																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water Services Expenditures																							
Water Rehabilitation	Hillsburgh Pumping Station Rehab	Rehabilitation/Renewal	157,363	157,363	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Rehabilitation	Hillsburgh Well 3 Generator Enclosure & Switch	Rehabilitation/Renewal	38,835	38,835	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Rehabilitation	Well House PLC Replacement & SCADA Install	Rehabilitation/Renewal	397,870	67,961	212,084	117,824	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Rehabilitation	Well House Betterments	Rehabilitation/Renewal	-	-	-	-	-	-	133,273	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Rehabilitation	General Rehabilitation	Rehabilitation/Renewal	-	-	-	-	-	-	-	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
Water Rehabilitation	Meter Replacement Program	Replacement	264,089	-	-	102,496	161,594	161,594	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Rehabilitation	Raido Meter Reading Device	Expansion	7,779	-	-	7,779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Rehabilitation	Rate Study	Expansion	32,991	-	32,991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenditures (Uninflated)			898,927	264,159	245,075	228,099	161,594	161,594	133,273	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000

Total Operating Expenditures (Uninflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Uninflated)	264,159	245,075	228,099	161,594	161,594	133,273	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Total Operating Expenditures (Inflated)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Expenditures (Inflated)	272,084	260,000	249,250	181,875	187,331	159,135	122,987	126,677	130,477	134,392	138,423	142,576	146,853	151,259	155,797	160,471	165,285	170,243	175,351	180,611			

Planned Actions Summary	Impact (Inflated)																					
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rehabilitation/Renewal	272,084	225,000	128,750	-	-	159,135	122,987	126,677	130,477	134,392	138,423	142,576	146,853	151,259	155,797	160,471	165,285	170,243	175,351	180,611		
Replacement	-	-	112,000	181,875	187,331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansion	-	35,000	8,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total (Inflated)	272,084	260,000	249,250	181,875	187,331	159,135	122,987	126,677	130,477	134,392	138,423	142,576	146,853	151,259	155,797	160,471	165,285	170,243	175,351	180,611		



APPENDIX E
SCENARIO ANALYSIS – CAPITAL FORECASTS

Town of Erin
2013 Asset Management Plan
Scheduled Capital Replacement (Tax Supported Assets) - Inflated

Table E-1
Scenario 1: Replacement Year Based PSAB 3150 Data

Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	TOTAL
Total Scheduled Capital - Inflated	20,507,770	993,088	8,830,318	1,026,320	1,894,762	1,197,459	2,796,142	5,609,465	10,816,671	1,983,318	4,834,983	2,681,520	14,920,809	4,127,079	748,998	1,175,466	1,574,556	1,055,736	3,312,019	6,684,264	9,392,377	106,163,118
Facilities	2,217,000	-	7,073,721	-	-	-	-	1,135,788	1,730,059	140,973	189,492	118,490	4,277,283	-	-	-	-	-	200,798	4,185,619	-	21,530,117
Vehicles and Equipment	-	993,088	598,536	602,392	1,094,105	626,728	639,263	652,048	665,089	678,391	691,959	705,798	719,914	734,312	748,998	763,978	779,258	794,843	810,740	826,955	843,494	14,969,887
Roads	3,513,403	-	194,282	423,928	800,656	570,731	2,156,879	1,290,944	8,421,522	1,163,954	3,953,533	1,857,231	9,923,613	2,582,336	-	411,488	795,298	-	2,300,481	1,671,691	8,548,883	50,580,853
Bridges	7,330,712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,330,712
Culverts	7,446,655	-	963,779	-	-	-	-	2,530,685	-	-	-	-	-	810,431	-	-	-	-	-	-	-	11,751,549

Table E-2
Scenario 2: Replacement Year Based on Condition and Risk

Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	TOTAL
Total Scheduled Capital - Inflated	368,400	3,866,966	2,202,352	1,977,794	2,213,935	2,145,322	2,959,216	2,322,176	2,856,160	3,114,414	3,982,692	3,003,614	4,012,039	3,787,289	4,209,065	3,592,723	5,321,063	3,360,066	6,141,416	5,373,993	6,265,897	73,076,592
Facilities	368,400	223,974	300,871	78,676	321,333	37,560	240,124	47,227	-	203,284	19,890	-	383,530	327,189	267,123	300,688	554,587	99,171	788,907	234,970	871,087	5,668,591
Vehicles and Equipment	-	993,088	598,536	602,392	1,094,105	626,728	639,263	652,048	665,089	678,391	691,959	705,798	719,914	734,312	748,998	763,978	779,258	794,843	810,740	826,955	843,494	14,969,887
Roads	-	1,915,000	399,660	696,619	798,497	1,481,033	1,502,856	1,622,900	2,191,071	2,232,739	2,203,342	2,297,816	2,313,598	2,725,788	2,358,200	2,528,057	2,539,301	2,466,052	3,272,372	3,565,457	3,274,821	42,385,179
Bridges	-	734,905	-	600,107	-	-	576,973	-	-	-	1,067,502	-	-	-	-	-	1,447,917	-	1,269,396	-	1,276,495	6,973,295
Culverts	-	-	903,285	-	-	-	-	-	-	-	-	-	594,998	-	834,744	-	-	-	-	746,612	-	3,079,639

Figure E-1
Tax Supported Assets
Scenario 1 - Replacement Year Based PSAB 3150 Data

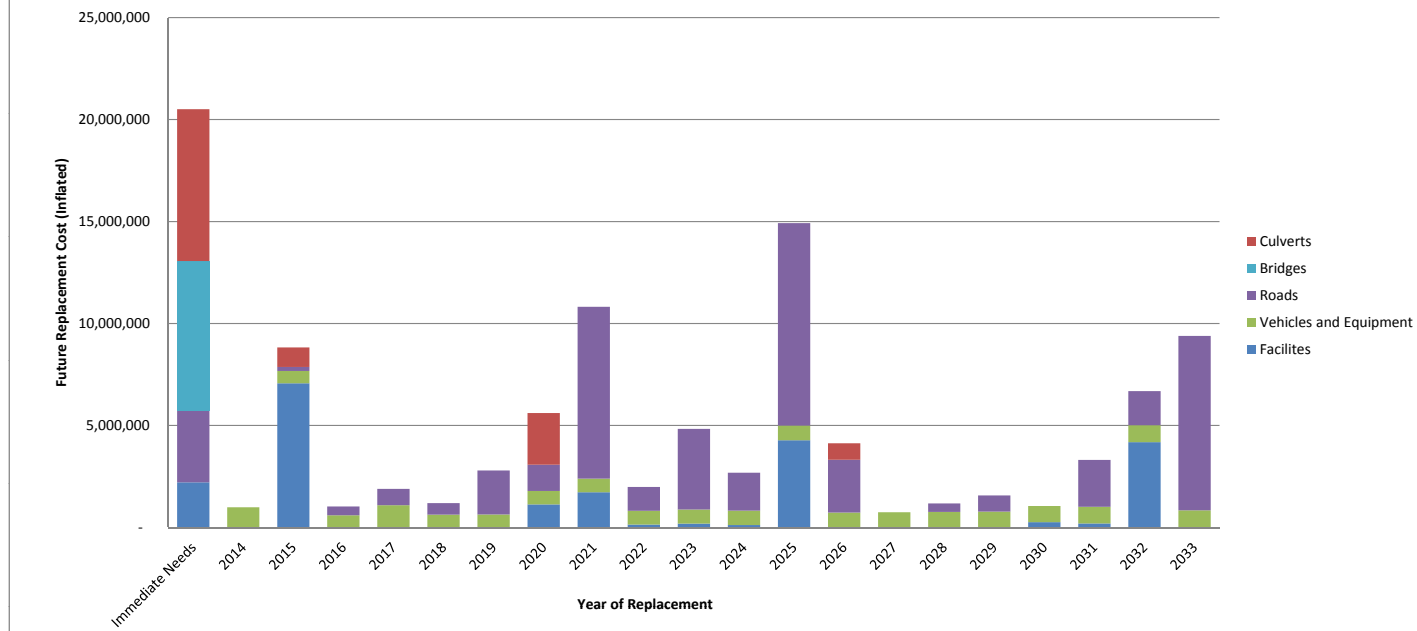
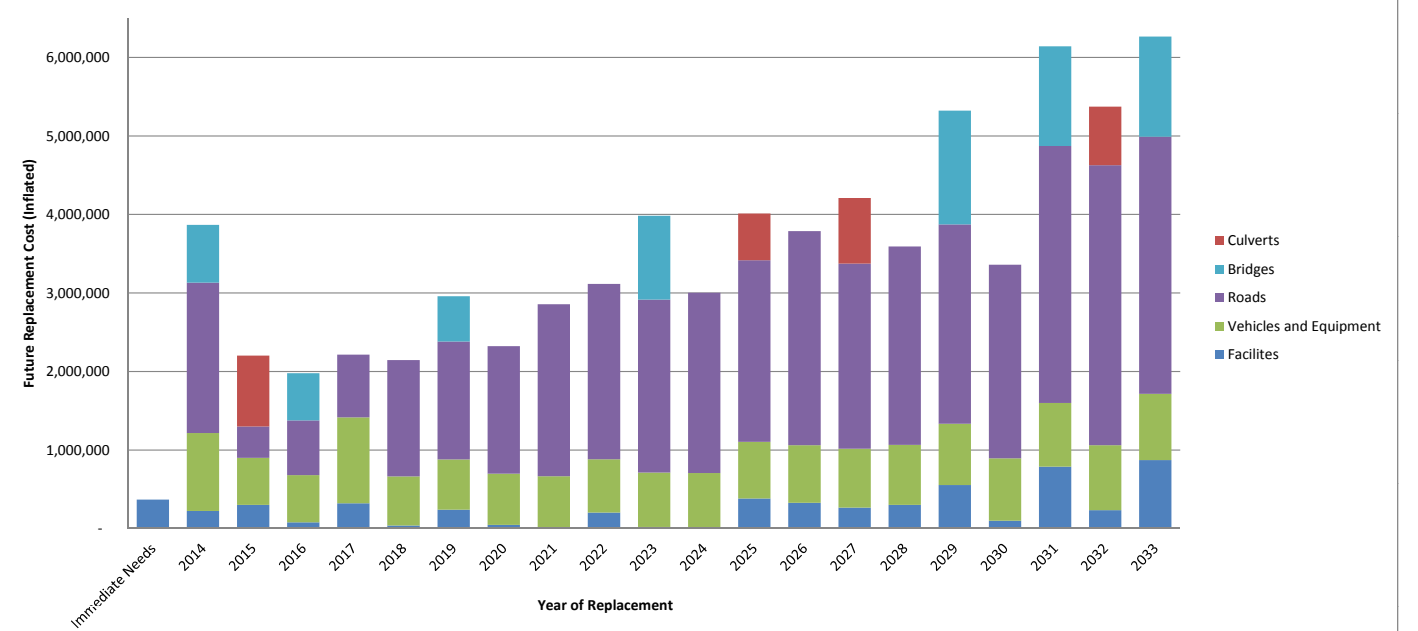


Figure E-2
Tax Supported Assets
Scenario 2 - Replacement Year Based Condition and Risk



Town of Erin
2013 Asset Management Plan
Scheduled Capital Replacement (Water Assets) - Inflated

Table E-3
Scenario 1: Replacement Year Based PSAB 3150 Data

Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	TOTAL
Total Scheduled Capital - Inflated	2,491,859	-	1,183,205	-	-	1,216,588	185,615	-	-	-	214,394	-	3,798,391	-	95,003	3,653,940	-	5,410,923	2,317,555	343,679	-	20,911,153
Water Mains	971,003	-	1,013,961	-	-	1,216,588	185,615	-	-	-	-	-	3,798,391	-	-	1,533,048	-	82,142	-	343,679	-	9,144,428
Facilities	1,520,856	-	169,244	-	-	-	-	-	-	-	214,394	-	-	-	95,003	2,120,892	-	5,328,781	2,317,555	-	-	11,766,726

Table E-4
Scenario 2: Replacement Year Based on Condition and Risk

Asset Type	Immediate Needs	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	TOTAL
Total Scheduled Capital - Inflated	-	-	56,468	520,887	624,493	799,397	699,310	711,721	729,588	736,500	628,183	770,603	623,651	554,099	743,706	713,149	490,663	1,413,542	748,045	1,576,850	947,020	14,087,874
Water Mains	-	-	-	331,685	394,666	641,583	575,049	590,402	557,140	501,641	409,501	732,915	396,527	554,099	648,702	670,732	490,663	1,329,577	701,694	1,576,850	932,614	12,036,040
Facilities	-	-	56,468	189,202	229,827	157,814	124,260	121,319	172,448	234,859	218,682	37,688	227,124	-	95,003	42,418	-	83,965	46,351	-	14,406	2,051,834

Figure E-3
Water Assets
Scenario 1: Replacement Year Based on PSAB 3150 Data

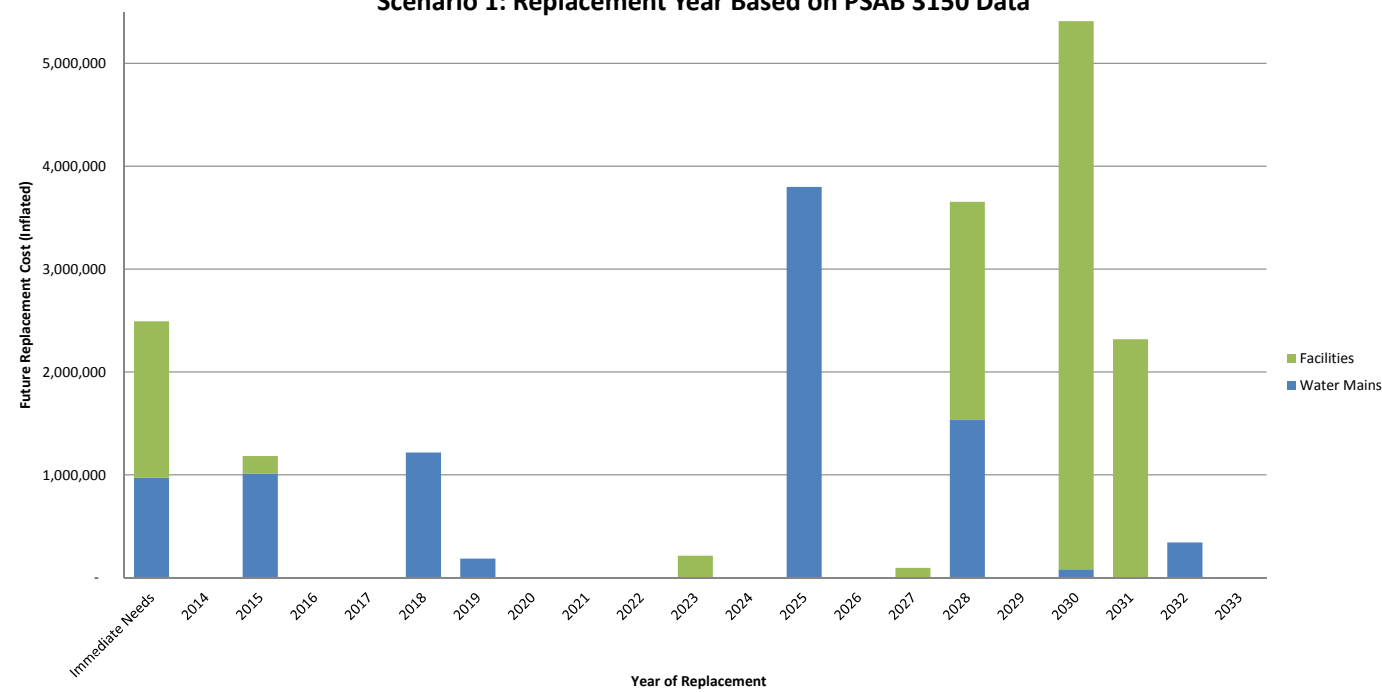
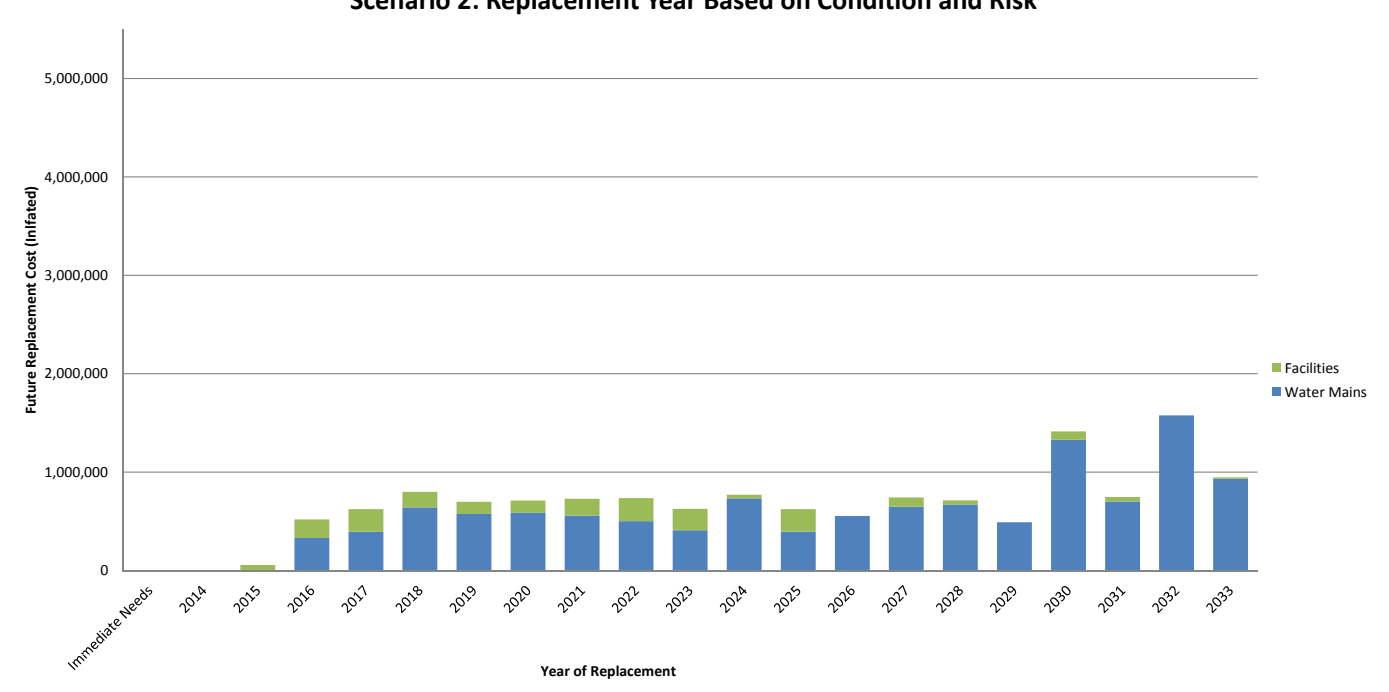


Table E-4
Water Assets
Scenario 2: Replacement Year Based on Condition and Risk



APPENDIX F
TAX SUPPORTED ASSET MANAGEMENT STRATEGY &
FINANCING STRATEGY

**Town of Erin
2013 Asset Management Plan
Expansion Projects - Uninflated**

**Table F-1
Tax Supported Services**

Description	Total	Forecast																			
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Growth Projects (DC)																					
Daniel St Reconstruction/Upgrade (Dundas)	1,114,000								1,114,000												
Roads - 17 Sideroad - section 00300 (4th to 5th Line)	281,280	281,280																			
Roads - 17 Sideroad - section 00290 (3rd to 4th Line)	281,280		281,280																		
Roads - 17 Sideroad - section 00280 (2nd to 3rd Line)	262,260			262,260																	
Roads - 17 Sideroad - section 00270 (1st to 2nd Line)	481,580				481,580																
Hot Mix Sand Shed and Salt Brine Storage	280,000					280,000															
Bridge #2 Tenth Line above CR 52	1,200,000							1,200,000													
Expansion of Parking Lot at Erin Community Centre	70,000						70,000														
Total Capital Expenditures	3,970,400	281,280	281,280	262,260	481,580	280,000	70,000	1,200,000	1,114,000	-	-	-	-	-	-	-	-	-	-	-	-
Capital Financing																					
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Developer Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development Charges Reserve Fund	1,027,220	42,192	42,192	39,339	72,237	280,000	52,500	120,000	378,760	-	-	-	-	-	-	-	-	-	-	-	-
Tax Supported Capital Reserve Fund	2,943,180	239,088	239,088	222,921	409,343	-	17,500	1,080,000	735,240	-	-	-	-	-	-	-	-	-	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Financing	3,970,400	281,280	281,280	262,260	481,580	280,000	70,000	1,200,000	1,114,000	-	-	-	-	-	-	-	-	-	-	-	-

Town of Erin
2013 Asset Management Plan
Financing Strategy

Table F-2
Tax Supported Capital Forecast

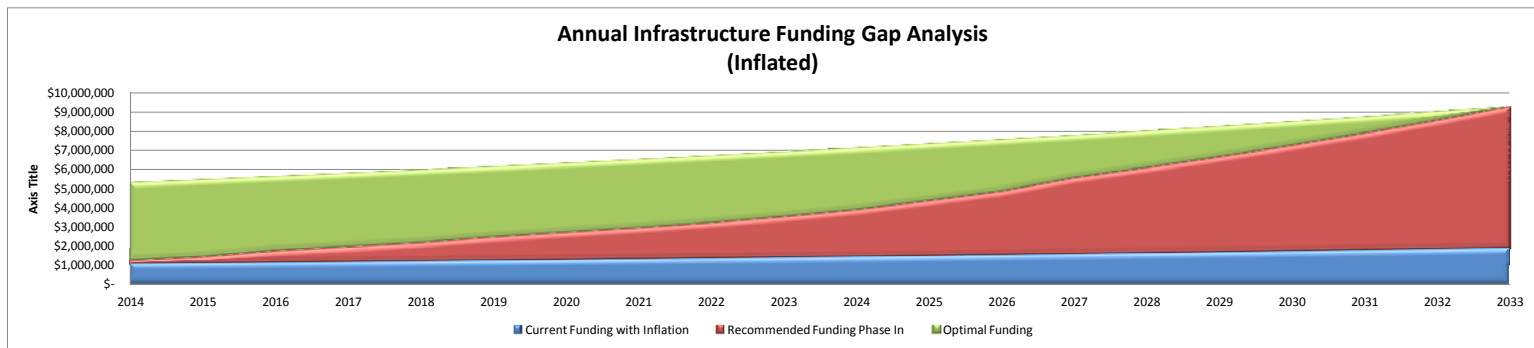
Description	Actual 2011	Actual 2012	Budget 2013	Forecast																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Prior Capital Expenses																							
General Government	35,523	32,142	83,990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building Department	1,033	-	45,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fire	657,774	2,123,124	387,326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roads	303,961	1,235,000	1,432,856	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Streetlighting	5,154	907	15,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental Services	96,175	72,513	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Planning	813	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreation and Culture	229,720	283,045	93,552	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Replacement Forecast																							
Facilities				413,700	496,289	78,676	321,333	37,560	240,124	47,227	-	203,284	19,890	-	383,530	327,189	267,123	300,688	554,587	99,171	788,907	234,970	871,087
Vehicles and Equipment				993,088	598,536	602,392	1,094,105	626,728	639,263	652,048	665,089	678,391	691,959	705,798	719,914	734,312	748,998	763,978	779,258	794,843	810,740	826,955	843,494
Roads				1,915,000	399,660	696,619	798,497	1,481,033	1,502,856	1,622,900	2,191,071	2,232,739	2,203,342	2,297,816	2,313,598	2,725,788	2,358,200	2,528,057	2,539,301	2,466,052	3,272,372	3,565,457	3,274,821
Bridges				734,905	-	600,107	-	-	576,973	-	-	-	1,067,502	-	-	-	-	-	1,447,917	-	1,269,396	-	1,276,495
Culverts				-	903,285	-	-	-	-	-	-	-	-	-	594,998	-	834,744	-	-	-	-	746,612	-
Level of Service Adjustments																							
Net Expenditures				485,212	487,484	868,609	522,799	584,854	650,161	718,861	791,098	867,022	946,789	683,535	684,365	763,638	847,050	1,324,272	1,027,012	1,123,936	1,225,752	1,332,665	3,702,528
Capital Expansion Forecast																							
Transportation				289,718	298,410	286,579	542,023	324,597	83,584	1,475,849	1,411,182	-	-	-	-	-	-	-	-	-	-	-	-
Total	1,330,153	3,746,731	2,157,724	4,831,623	3,183,664	3,132,981	3,278,756	3,054,772	3,692,961	4,516,885	5,058,439	3,981,435	4,929,482	3,687,149	4,696,404	4,550,927	5,056,115	4,916,996	6,348,075	4,484,002	7,367,167	6,706,658	9,968,425
Capital Financing																							
Provincial/Federal Grants	-	66,100	23,768	2,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Debt Proceeds	146,419	1,612,226	277,335	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non Growth Related Debt	-	-	-	638,000	650,000	950,000	1,000,000	250,000	1,000,000	1,400,000	1,300,000	500,000	1,000,000	-	-	-	-	-	-	-	-	-	-
Growth Related Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Funds: Gas Tax	50,986	653,338	341,965	354,442	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965	341,965
Reserve Funds: Development Charges	50,000	200,599	50,000	43,458	44,761	42,987	81,303	324,597	62,688	147,585	479,802	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Funds: Obligatory	-	55,416	142,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserves: Capital	250,907	720,103	588,038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Revenue	-	37,016	69,007	16,000	-	97,650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Operating Fund	831,841	401,933	665,211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital (Tax Supported)	-	-	-	1,779,723	2,146,937	1,700,380	1,855,488	2,138,210	2,288,308	2,627,336	2,936,673	3,139,470	3,587,517	3,345,184	4,354,439	4,208,962	4,714,150	4,575,031	6,006,110	4,142,037	7,025,203	6,364,693	9,626,460
Total Capital Financing	1,330,153	3,746,731	2,157,724	4,831,623	3,183,664	3,132,981	3,278,756	3,054,772	3,692,961	4,516,885	5,058,439	3,981,435	4,929,482	3,687,149	4,696,404	4,550,927	5,056,115	4,916,996	6,348,075	4,484,002	7,367,167	6,706,658	9,968,425
Total Capital Expenses less Capital Financing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Erin
2013 Asset Management Plan
Financing Strategy

Table F-5
Tax Supported Operating Budget Forecast Summary

Net Impact on Taxation	2011 Actual	2012 Actual	2013 Budget	Forecast																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Net Expenditures																							
General Government	955,843	935,949	1,133,331	1,084,300	1,105,900	1,128,000	1,150,600	1,173,600	1,197,100	1,221,000	1,245,400	1,270,300	1,295,700	1,321,600	1,348,000	1,375,000	1,402,500	1,430,600	1,459,200	1,488,300	1,518,100	1,548,500	1,579,500
Building Department	(78,453)	(57,510)	57,429	58,600	59,800	61,000	62,200	63,400	64,700	65,900	67,200	68,600	69,900	71,300	72,800	74,200	75,700	77,200	78,800	80,400	81,900	83,600	85,200
Fire	460,995	838,580	715,184	766,608	778,901	790,153	802,297	813,393	826,314	836,063	848,755	852,986	874,185	887,585	901,185	915,085	923,500	938,000	952,800	967,800	983,000	998,400	1,014,000
Roads/Transportation Services	2,131,307	2,366,308	2,960,316	2,292,965	2,339,365	2,386,665	2,434,965	2,484,265	2,534,565	2,585,865	2,638,165	2,691,565	2,745,965	2,801,465	2,832,300	2,890,100	2,949,000	3,009,100	3,070,300	3,132,800	3,196,500	3,261,500	3,327,800
Streetlighting	2,973	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Environmental Services	145,424	3,919	10,600	10,800	11,000	11,200	11,400	11,600	11,800	12,000	12,200	12,400	12,600	12,900	13,200	13,500	13,800	14,100	14,400	14,700	15,000	15,300	15,600
Recreation & Culture	824,036	709,257	701,548	722,774	733,249	634,325	640,871	645,829	657,459	669,186	681,288	693,717	706,311	719,231	732,345	725,600	740,200	755,000	770,200	785,700	801,400	817,400	833,800
Planning	83,321	26,724	92,561	83,200	84,900	86,600	88,300	90,100	91,900	93,800	95,700	97,600	99,500	101,500	103,600	105,700	107,800	109,900	112,100	114,400	116,700	119,000	121,400
Economic & Community Development	73,016	64,277	131,910	134,600	137,400	140,300	143,200	146,200	149,200	152,300	155,500	158,800	162,100	165,500	169,000	172,500	176,100	179,800	183,600	187,400	191,200	195,100	199,100
BIA	(7,284)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Costs/(Revenues)	(1,038,321)	(607,362)	(499,611)	(798,400)	(814,400)	(830,600)	(847,300)	(864,200)	(881,500)	(899,200)	(917,200)	(935,600)	(954,300)	(973,500)	(992,900)	(1,012,700)	(1,032,800)	(1,053,400)	(1,074,500)	(1,096,000)	(1,117,800)	(1,140,100)	(1,162,900)
Total Net Expenditures / (Revenues)	3,552,857	4,280,142	5,303,268																				
Total Net Expenditures / (Revenues) - Before Capital Related Costs				4,355,447	4,436,115	4,407,643	4,486,533	4,564,187	4,651,539	4,736,914	4,827,008	4,910,369	5,011,961	5,107,580	5,179,529	5,258,985	5,155,800	5,260,300	5,366,900	5,475,500	5,586,200	5,699,200	5,814,400
Net Expenditures due to Level of Service Adjustments	-	-	-	25,194	25,698	26,212	26,736	27,271	27,816	28,373	28,940	29,519	56,927	30,711	31,326	31,952	32,591	33,243	33,908	34,586	35,278	35,983	36,703
Transfers to Reserve Funds																							
Reserves/Reserve Funds (Surplus)	704,220	336,166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tax Supported Capital Reserve Funds	-	-	-	1,218,872	1,399,299	1,705,366	1,898,437	2,108,200	2,389,005	2,633,310	2,863,718	3,133,083	3,447,144	3,807,671	4,273,780	4,762,462	5,465,542	5,994,471	6,556,708	7,154,330	7,789,326	8,463,703	9,179,888
Debentures																							
New Debenture Payments	-	-	-	-	51,195	103,352	179,583	259,825	279,886	360,129	472,468	576,784	616,905	697,148	697,148	697,148	697,148	697,148	697,148	697,148	697,148	697,148	697,148
Total Taxation Levy	4,257,077	4,616,308	5,303,268	5,599,513	5,912,307	6,242,573	6,591,289	6,959,483	7,348,246	7,758,726	8,192,134	8,649,754	9,132,937	9,643,110	10,181,783	10,750,546	11,351,081	11,985,162	12,654,663	13,361,564	14,107,951	14,896,034	15,728,138
Taxation Levy Analysis																							
Prior Year Taxation Levy	4,054,268	4,257,077	4,616,308	5,303,268	5,599,513	5,912,307	6,242,573	6,591,289	6,959,483	7,348,246	7,758,726	8,192,134	8,649,754	9,132,937	9,643,110	10,181,783	10,750,546	11,351,081	11,985,162	12,654,663	13,361,564	14,107,951	14,896,034
Add: Provision for Assessment Growth (see below)	-	42,571	73,861	53,033	55,995	59,123	62,426	65,913	69,595	73,482	77,587	81,921	86,498	91,329	96,431	101,818	107,505	113,511	119,852	126,547	133,616	141,080	148,960
Current Year Taxation Levy at 0.0% Increase	4,054,268	4,299,648	4,690,169	5,356,301	5,655,508	5,971,430	6,304,999	6,657,201	7,029,078	7,421,728	7,836,313	8,274,055	8,736,252	9,224,266	9,739,541	10,283,600	10,858,052	11,464,592	12,105,013	12,781,210	13,495,179	14,249,031	15,044,994
Additional Increase in Taxation Levy for the year	202,809	316,660	613,099	243,212	256,799	271,143	286,290	302,282	319,168	336,997	355,821	375,699	396,685	418,844	442,241	466,946	493,029	520,570	549,660	580,354	612,772	647,003	683,144
Total Taxation Levy	4,257,077	4,616,308	5,303,268	5,599,513	5,912,307	6,242,573	6,591,289	6,959,483	7,348,246	7,758,726	8,192,134	8,649,754	9,132,937	9,643,110	10,181,783	10,750,546	11,351,081	11,985,162	12,654,663	13,361,564	14,107,951	14,896,034	15,728,138
Percentage Increase (Factoring in Assessment Growth)	5.0%	7.4%	13.1%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Assessment Growth Estimate (%)	2011 Actual	2012 Actual	2013 Budget	Forecast																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Assessment Growth Estimate (%)	0.0%	1.0%	1.6%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%



APPENDIX G
WATER ASSET MANAGEMENT STRATEGY & FINANCING
STRATEGY

**Town of Erin
2013 Asset Management Plan
Expansion Projects - Uninflated**

**Table G-1
Water Services**

Description	Total	Forecast																			
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Growth Projects (DC)																					
New Well (Erin)	2,750,000																	2,750,000			
New Well (Hillsburgh)	2,250,000																				2,250,000
Daniel St. Watermain	900,000								900,000												
Total Capital Expenditures	5,900,000	-	-	-	-	-	-	-	900,000	-	-	-	-	-	-	-	-	2,750,000	-	-	2,250,000
Capital Financing																					
Provincial/Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Developer Contributions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Growth Related Debenture Requirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development Charges Reserve Fund	4,537,500	-	-	-	-	-	-	-	225,000	-	-	-	-	-	-	-	-	2,062,500	-	-	2,250,000
Capital Reserve Fund	1,362,500	-	-	-	-	-	-	-	675,000	-	-	-	-	-	-	-	-	687,500	-	-	-
Lifecycle Reserve Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital Financing	5,900,000	-	-	-	-	-	-	-	900,000	-	-	-	-	-	-	-	-	2,750,000	-	-	2,250,000

Town of Erin
2013 Asset Management Plan
Financing Strategy

Table G-2
Water Capital Forecast

Description	Actual 2011	Actual 2012	Budget 2013	Forecast																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Prior Capital Expenses																							
Major Studies	-	-	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ORII Project # 1	288	30,811	738,396	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CIIF - Water Tower Interior Coating	-	-	237,533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Capital Projects	43,471	401,771	186,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Capital Replacement Forecast																							
Water Mains				-	-	331,685	394,666	641,583	575,049	590,402	557,140	501,641	409,501	732,915	396,527	554,099	648,702	670,732	490,663	1,329,577	701,694	1,576,850	932,614
Facilities				-	56,468	189,202	229,827	157,814	124,260	121,319	172,448	234,859	218,682	37,688	227,124	-	95,003	42,418	-	83,965	46,351	-	14,406
Level of Service Adjustments																							
Net Expenditures				272,084	260,000	249,250	181,875	187,331	159,135	122,987	126,677	130,477	134,392	138,423	142,576	146,853	151,259	155,797	160,471	165,285	170,243	175,351	180,611
Capital Expansion Forecast																							
Waterworks				-	-	-	-	-	-	-	1,140,093	-	-	-	-	-	-	-	-	4,545,331	-	-	4,063,750
Total Capital Expenditures	43,759	432,582	1,181,929	272,084	316,468	770,137	806,368	986,728	858,445	834,709	1,996,358	866,978	762,574	909,026	766,227	700,952	894,965	868,946	651,134	6,124,157	918,288	1,752,200	5,191,381
Capital Financing																							
Provincial/Federal Grants	17,405	159,758	738,396	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Debt Proceeds	8,559	38,210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non Growth Related Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Growth Related Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Funds: Development Charges	-	-	50,000	-	-	-	-	-	-	-	285,023	-	-	-	-	-	-	-	-	-	3,408,998	-	4,063,750
Reserve Funds: Obligatory	17,795	68,542	104,166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserves: Capital	-	12,467	283,867	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Revenue: Special Area Levy	-	128,624	5,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other: Transfer from Operating Fund	-	24,981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund: New Capital (Water)	-	-	-	272,084	316,468	770,137	806,368	986,728	858,445	834,709	1,711,335	866,978	762,574	909,026	766,227	700,952	894,965	868,946	651,134	2,715,159	918,288	1,752,200	1,127,631
Total Capital Financing	43,759	432,582	1,181,929	272,084	316,468	770,137	806,368	986,728	858,445	834,709	1,996,358	866,978	762,574	909,026	766,227	700,952	894,965	868,946	651,134	6,124,157	918,288	1,752,200	5,191,381
Total Capital Expenses less Capital Financing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Town of Erin
2013 Asset Management Plan
Financing Strategy

Table G-5
Water Budget Forecast Summary

Net Impact on Water Revenue	2011 Actual	2012 Actual	2013 Budget	Forecast																			
				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Expenditures																							
Operating Expenditures (Net of Misc Revenues)	923,372	1,020,278	915,422	933,700	952,400	971,500	990,900	1,010,700	1,031,000	1,051,700	1,072,800	1,094,300	1,116,300	1,138,700	1,161,500	1,184,700	1,208,500	1,232,700	1,257,400	1,282,600	1,308,300	1,334,500	1,361,300
Capital Related Costs (Net of Revenues)	(52,193)	146,197	435,157																				
Net Impact on Water Revenue	871,179	1,166,475	1,350,579																				
Net Impact on Water Revenue - Operating Only				933,700	952,400	971,500	990,900	1,010,700	1,031,000	1,051,700	1,072,800	1,094,300	1,116,300	1,138,700	1,161,500	1,184,700	1,208,500	1,232,700	1,257,400	1,282,600	1,308,300	1,334,500	1,361,300
Net Expenditures due to Level of Service Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers to Reserve Funds																							
Water Capital Reserve Fund	-	-	-	686,995	749,330	815,317	885,258	959,266	1,037,464	1,120,187	1,207,681	1,254,595	1,303,062	1,353,243	1,405,201	1,459,002	1,514,513	1,572,003	1,631,444	1,692,909	1,756,474	1,822,217	1,890,119
Debentures																							
New Debenture Payments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water System Rate Based Revenue	871,179	1,166,475	1,350,579	1,620,695	1,701,730	1,786,817	1,876,158	1,969,966	2,068,464	2,171,887	2,280,481	2,348,895	2,419,362	2,491,943	2,566,701	2,643,702	2,723,013	2,804,703	2,888,844	2,975,509	3,064,774	3,156,717	3,251,419
Percentage Increase	3.44%	33.90%	15.78%	20.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%

