CORPORATION OF THE TOWN OF PORTUGAL COVE-ST. PHILIP'S

Municipal Asset Management Plan

May 31st, 2016

Table of Contents

Asset Management Planning for the Town of Portugal Cove-St. Philip's

Glossary of Terms

Asset management planning	Asset management planning is the process of making the best possible decisions regarding the acquisition, operating, maintaining, renewing, replacing and disposing of infrastructure assets. The objective of an asset management plan is to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable manner.
Historical cost	Historical cost represents the actual cost incurred by the Town at the date of acquisition. Given the timeframe between the date of acquisition and the current date, historical cost is not reflective of the replacement cost of the asset.
Replacement cost	Replacement cost reflects the cost that would be incurred in the event that the Town was required to replace the asset at the present time in new condition.
Life cycle cost	Life cycle costs reflect the cost of all asset management activities that are recommended for the maintenance of the asset, including major periodic maintenance activities (e.g. crack sealing for paved roads), including the ultimate replacement of the infrastructure but not its initial acquisition. For the purposes of the asset management plan, life cycle costs have been expressed in current dollars and have not been adjusted for anticipated inflationary increases over the life of the assets except where noted.
Condition assessments	Condition assessments are a means of expressing the current state of the Town's infrastructure based on three possible ratings – good, fair and poor. The determination of the ratings will vary based on the type of infrastructure involved.
Immediate infrastructure requirements	For the purposes of the asset management, immediate infrastructure requirements are capital investments that are recommended to be made within the next 10 years, based on the condition assessment of the infrastructure and the recommended life cycle activities. The immediate infrastructure requirement identified for the Town is intended to address those assets that are currently rated as poor or expected to be rated as poor during the next ten years (due to deterioration caused by usage, weather, etc.).
Sustaining life cycle requirements	The sustainable life cycle requirement of an asset is the total of its life cycle costs divided by its estimated useful life. The sustainable life cycle requirement represents the amount of funding that should be committed to the Town's infrastructure on an annual basis in order to fully fund the recommended life cycle activities.

Glossary of Terms

Anticipated asset life cycle	The anticipated asset life cycle is the estimated productive useful life of an asset or infrastructure component. At the end of the anticipated asset life cycle, the Town will be required to replace the asset in question, either through acquisition or reconstruction.
Integration opportunities	Integration opportunities represent potential groupings of different assets into a single project. For example, roads capital projects are often integrated with water, wastewater and storm sewer replacements given that these systems are underneath (and accessed through) municipal roads.
Rehabilitation and replacement criteria	Rehabilitation and replacement criteria are the factors considered by the Town when planning to undertake certain asset management activities.
Rehabilitation and replacement strategies	Rehabilitation and replacement strategies represent activities that are intended to maintain the condition and performance of the Town's infrastructure. Rehabilitation and replacement strategies are synonymous with asset management activities.
Life cycle consequences	Life cycle consequences represent the expected outcomes in the event that the Town does not undertake the recommended asset management activities during the recommended timeframes. Life cycle consequences can include but are not limited to deterioration of the physical condition of the asset, a reduction in the outputs and service potential of the assets, increased operating costs, higher costs for subsequent asset management activities than would otherwise have been incurred had the Town undertaken the recommended asset management activities and/or a reduction in the estimated useful life of the asset.
Integrated asset priorities	Where different assets can be integrated into capital projects, the integrated asset priorities determine the basis for selecting and prioritizing capital projects. For example, a Town with a water and wastewater system that is in poor condition may prioritize road construction projects based on the condition of the underlying water and wastewater system.

Asset Management Planning for the Town of Portugal Cove-St. Philip's

Executive Summary

Asset management planning is the process of making the best possible decisions regarding the acquisition, operating, maintaining, renewing, replacing and disposing of infrastructure assets and is regarded as best practice for long-term financial planning. Asset management planning is particularly important for municipalities given the significance of their investment in infrastructure, concerns over affordability, the increasing cost of regulatory compliance and the fact that a number of municipalities are faced with the impending end of life of a sizeable component of their infrastructures.

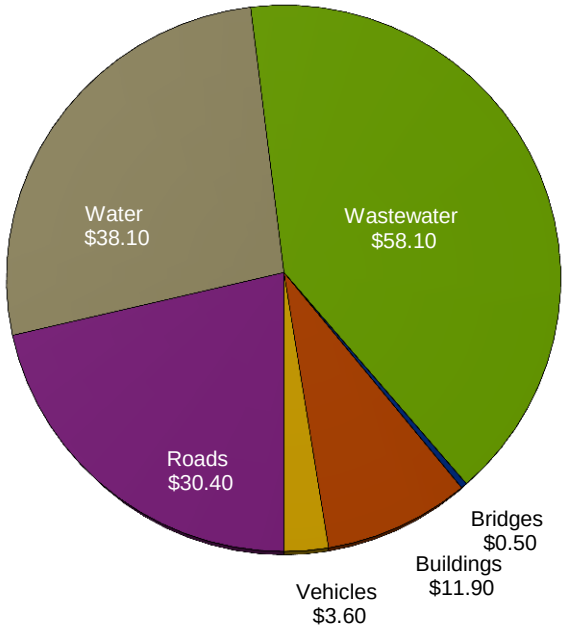
Current state of infrastructure

Infrastructure represents a major investment on the part of the Town of Portugal Cove – St. Philip's (the 'Municipality'). Over the last five years (2010 to 2014), the Municipality has invested a total of $19 million in capital financed through a combination of grants, debt and taxation revenues.

Overall, the estimated replacement cost of its assets – roads, bridges, buildings, vehicles, equipment and pipes – is estimated to be more than $142 million at December 31, 2014, or $19,000 per resident. A sizeable component of the Municipality's infrastructure consists of so-called 'linear' assets – roads and pipes – that are critical to the health, safety and economic well-being of the community. At the same time, planning for the rehabilitation and reconstruction of linear assets benefits significantly from asset management planning as they are also co-located and generally benefit from a consolidated approach that looks at replacing underground and surface assets at the same time.

The main focus of asset management planning is to determine the Municipality's upcoming infrastructure requirements and determining a practical strategy to obtain the necessary funds for these investments.

Replacement value by type of asset (in millions)



Determining the required level of future investments is based on an assessment of the Municipality's infrastructure, with assets evaluated as being in poor shape requiring more immediate investment that assets considered to be in either good or fair condition. As noted on the following page, the Municipality's infrastructure is generally in good or fair condition, reducing the level of necessary capital investment over the next ten years. Based on the condition assessments prepared in connection with the asset management plan, a total of $4.0 million in infrastructure investments are projected over the next 10 years for assets that are reaching end of useful life, recognizing that other investments will be required for assets not included in the scope of the asset management plan (e.g. trails) or for infrastructure investments for new services that will be funded directly by the residents receiving the benefit of these investments.

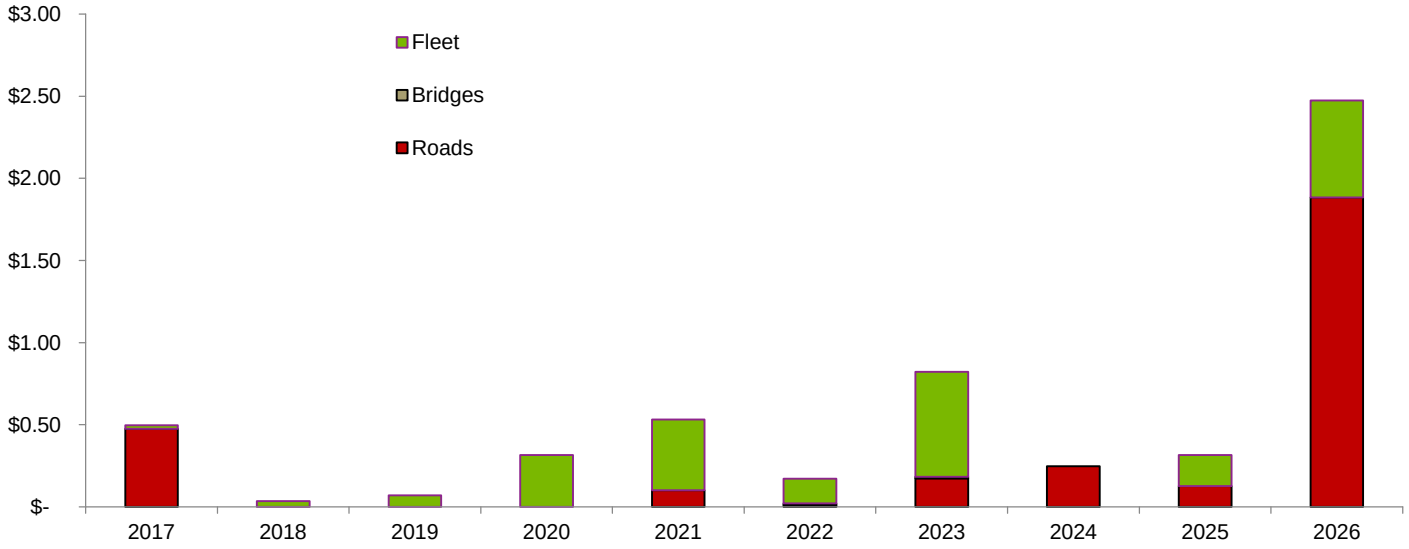
Asset Management Planning for the Town of Portugal Cove-St. Philip's

Executive Summary

Condition assessment results by infrastructure component

Infrastructure	Condition Assessment		
	Good	Fair	Poor
Roads	97.4%	1.0%	1.6%
Water mains	79.2%	20.8%	–
Wastewater mains	83.3%	16.7%	–
Buildings	61.5%	38.5%	–
Bridges	66.7%	25.0%	8.3%
Vehicles	52.0%	32.0%	16.0%

Projected future infrastructure investment requirements (in thousands)



Executive Summary

Asset management strategies

In addition to meeting the need to replace infrastructure as it approaches the end of its useful life, the asset management plan also considers the longer term financing needs necessary to ensure a sustainable approach to capital financing. After consideration of grants and in addition to the $5.4 million necessary to meet the short-term (i.e. ten year) capital needs, the Municipality should be raising $1.6 million per year in long-term capital financing. In comparison, the Municipality is currently raising less than $300,000 per year for capital, resulting in a financing deficit of approximately $1.3 million annually.

In order to address this deficit, the asset management strategy recommends a phase-in of tax increases over a ten year period so as to provide the Municipality with the necessary financial capacity to undertake capital reinvestment while at the same time alleviating pressures on taxpayers by gradually introducing increases. As identified in the financial model prepared for the asset management plan, achieving long-term sustainability from a capital financing perspective will require the Municipality to raise taxes by just over 3% per year, representing 2.5% for inflation with a 1% residential growth factor, while at the same time building necessary reserves in support of long-term capital financing.

In addition to gradual taxation increases, the asset management plan also provides suggested policies and approaches to debt financing, reserves and reserve funds, investments and water and wastewater user fees, all of which are intended to contribute towards an operating environment that reflects financial sustainability over the long-term.

We would like to acknowledge the cooperation of Municipal staff in the preparation of this report.

Asset Management Planning
for the Town of Portugal Cove-St. Philip's

Chapter I
Introduction

Introduction

Overview of the Asset Management Plan

Asset management planning defined

Asset management planning is the process of making the best possible decisions regarding the acquisition, operating, maintaining, renewing, replacing and disposing of infrastructure assets. The objective of an asset management plan is to maximize benefits, manage risk and provide satisfactory levels of service to the public in a sustainable manner. In order to be effective, an asset management plan needs to be based on a thorough understanding of the characteristics and condition of infrastructure assets, as well as the service levels expected from them. Recognizing that funding for infrastructure acquisition and maintenance is often limited, a key element of an asset management plan is the setting of strategic priorities to optimize decision-making as to when and how to proceed with investments. The ultimate success or failure of an asset management plan is dependent on the associated financing strategy, which will identify and secure the funds necessary for asset management activities and allow the Town to move from planning to execution.

The purpose of the asset management plan

The asset management plan outlines the Town's planned approach for the acquisition and maintenance of its major infrastructure components, which in turn allows the Town to meet its stated mission and mandate by supporting the delivery of services to its residents. In achieving this objective, the asset management plan:

- Provides elected officials, Municipal staff, funding agencies, community stakeholders and residents with an indication of the Town's investment in infrastructure and its current condition;
- Outlines the total financial requirement associated with the management of this infrastructure investment, based on recommended asset management practices that encompass the total life cycle of the assets;
- Prioritizes the Town's infrastructure needs, recognizing that the scope of the financial requirement is beyond the capabilities of the Town and that some form of prioritization is required; and
- Presents a financial strategy that outlines how the Town intends to meet its infrastructure requirements.

It is important to recognize that the asset management plan is just that – a plan. The asset management plan (which has been prepared for the purposes of meeting the requirements of the Municipal Gas Tax Funding Agreement as well as meeting Council's desire to have a longer term plan associated with debt and the financing of Capital items) does not represent a formal, multi-year budget for the Town. The approval of operating and capital budgets is undertaken as part of the Town's overall annual budget process. Accordingly, the financial performance and priorities outlined in the asset management plan are subject to change based on future decisions of Council with respect to operating and capital costs, taxation levels and changes to regulatory requirements or the condition of the Town's infrastructure.

Introduction

Scope of the Asset Management Plan

The asset management plan encompasses the following components of the Town's infrastructure:

Transportation Infrastructure	Water and Wastewater Infrastructure	Other Infrastructure
• Roads • Bridges and culverts	• Water distribution system • Wastewater collection system	• Vehicles • Facilities

For the purposes of developing the asset management plan, a 10-year planning horizon was considered, although the analysis includes a discussion of required activities over the entire life cycle of the Town's infrastructure. It is expected that the Town will update its asset management plan every four years (to coincide with Council elections) or earlier in the event of a major change in circumstances, which could include:

- New funding programs for infrastructure
- Unforeseen failure of a significant infrastructure component
- Regulatory changes that have a significant impact on infrastructure requirements
- Changes to the Town's economic or demographic profile (positive or negative), which would impact on the nature and service level of its infrastructure

Introduction

Methodology

The development of the Town's asset management plan involved the following major work steps.

Workstep	Report Section
1. Information concerning the Town's tangible capital assets was reviewed and summarized to provide a preliminary inventory of assets, acquisition year, remaining useful life and historical cost.	Chapter II
2. A condition assessment of the Town's infrastructure was developed based on a review of previously commissioned assessments, the age and estimated remaining useful life of the infrastructure and engineering inspections of certain components.	Chapter II
3. Asset management strategies for each component of the Town's infrastructure were developed to provide an indication as to the recommended course of action for infrastructure procurement, maintenance and replacement/rehabilitation over the estimated useful life of the infrastructure component. As part of the development of the asset management strategies, cost estimates were prepared for the recommended activities.	Chapter IV
4. Recognizing that the overall financial requirement associated with the recommended asset management strategies may be unaffordable for the Town, the required asset management activities were prioritized based on the potential risk of failure (determined by the condition assessment), the potential impact on residents and other stakeholders and other considerations.	Chapter IV
6. A series of financial projections was developed based on the resources available to the Town to support its asset management activities, including funding from taxation and user fees.	Chapter V
6. Suggested policies were developed with respect to capital financing, budgeting, reserves and reserve funds and the use of debt in order to provide a framework for financial decision making that is consistent with long-term sustainability.	Chapter V

Introduction

Evaluating and Improving the Asset Management Plan

The asset management plan outlined in this report represents a forecast of the Town's infrastructure-related activities under a series of assumptions that are documented within the plan. The asset management plan does not represent a formal, multi-year budget for infrastructure acquisition and maintenance activities but rather a long-term strategy intended to guide future decisions of the Town and its elected officials and staff, recognizing that the approval of operating and capital budgets is undertaken as part of the Town's overall annual budgeting process.

In order to evaluate and improve the asset management plan, the Town plans to undertake the following actions:

Action Item	Frequency
1. Updating of infrastructure priorities based on: • Ongoing condition assessments • Visual inspection by municipal personnel • Identified failures or unanticipated deterioration of infrastructure components • Analysis of performance indicators	Annually
2. Adjustment of asset management plan for changes in financial resources, including new or discontinued grant programs, changes to capital component of municipal levy, etc.	Every four years
3. Comparison of actual service level indicators to planned service level indicators and identification of significant variances (positive or negative)	Annually

Introduction

Restrictions

This report is based on information and documentation that was made available to KPMG at the date of this report. KPMG has not audited nor otherwise attempted to independently verify the information provided unless otherwise indicated. Should additional information be provided to KPMG after the issuance of this report, KPMG reserves the right (but will be under no obligation) to review this information and adjust its comments accordingly.

Pursuant to the terms of our engagement, it is understood and agreed that all decisions in connection with the implementation of advice and recommendations as provided by KPMG during the course of this engagement shall be the responsibility of, and made by, the Town of Portugal Cove-St. Philip's. KPMG has not and will not perform management functions or make management decisions for the Town of Portugal Cove-St. Philip's.

This report includes or makes reference to future oriented financial information. Readers are cautioned that since these financial projections are based on assumptions regarding future events, actual results will vary from the information presented even if the hypotheses occur, and the variations may be material.

Comments in this report are not intended, nor should they be interpreted to be, legal advice or opinion.

KPMG has no present or contemplated interest in the Town of Portugal Cove-St. Philip's nor are we an insider or associate of the Town of Portugal Cove-St. Philip's or its management team. Our fees for this engagement are not contingent upon our findings or any other event. Accordingly, we believe we are independent of the Town of Portugal Cove-St. Philip's and are acting objectively.

Asset Management Planning
for the Town of Portugal Cove-St. Philip's

Chapter II
State of Local Infrastructure

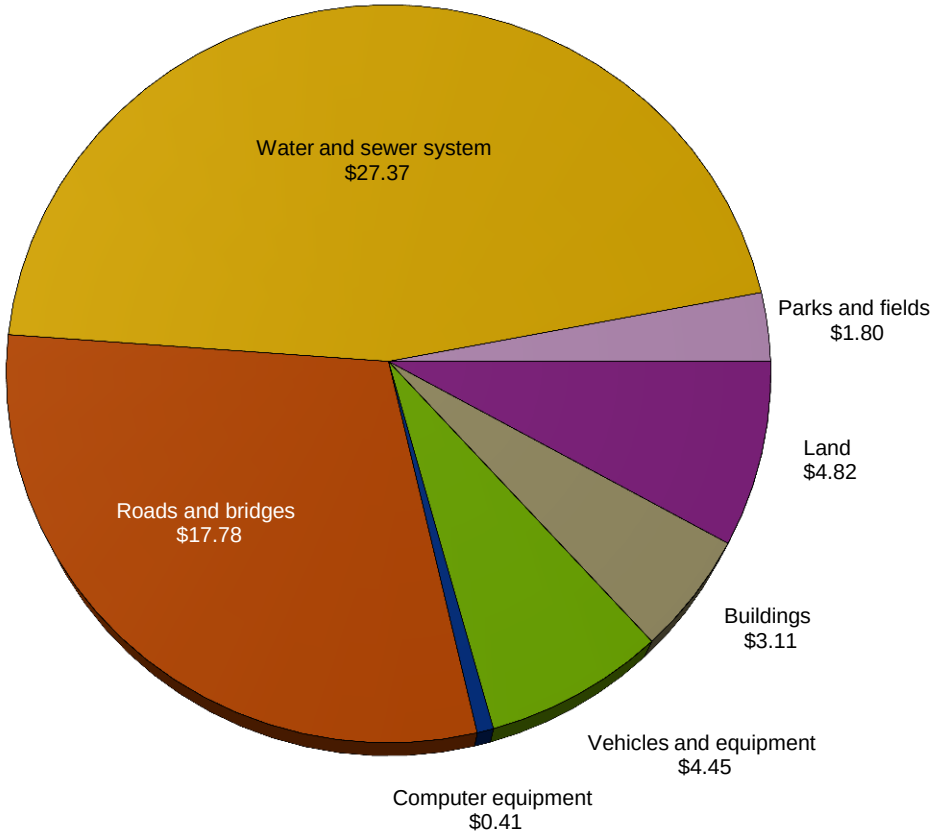
State of Local Infrastructure

Overview of the Town's Infrastructure

At December 31, 2014, the Town reported a total investment of $59.7 million in tangible capital assets ('TCA') at historical cost. This equates to an average investment of $19,000 per household, or $8,100 per resident.

With a historical cost of $27.4 million, the Town's investment in its water and sewer system represents the single largest component of its TCA, accounting for 45% of the Town's total TCA. Roads, streets and bridges represent the next largest component of the Town's infrastructure, amounting to $17.8 million as at December 31, 2014.

Tangible capital assets by type (2014 historical cost, in millions)

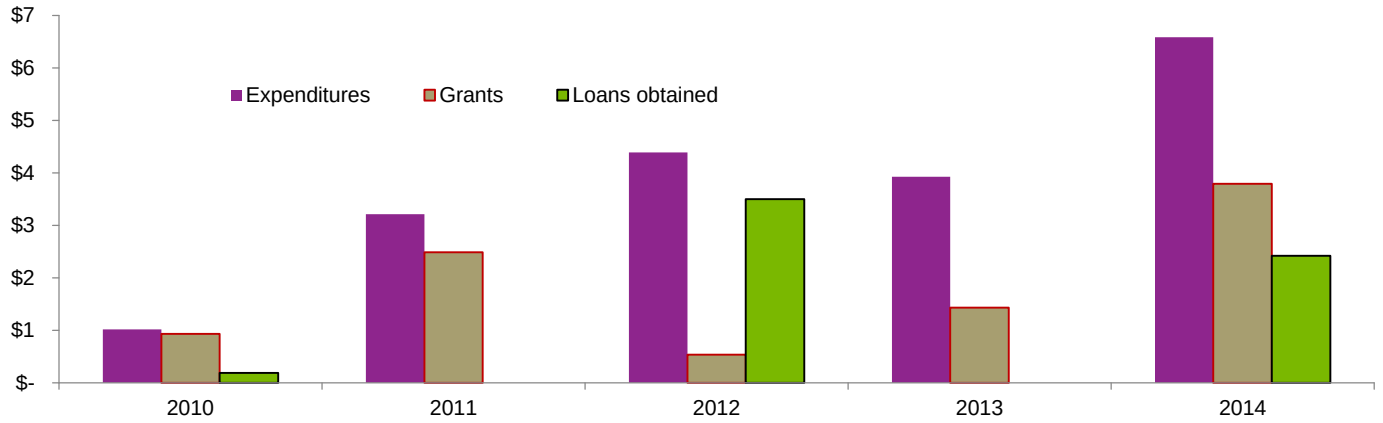


State of Local Infrastructure

Overview of the Town's Infrastructure

For the five years (2014 and prior), the Town's investment in its infrastructure has totaled just over $19 million, with Federal and Provincial capital grants amounting to approximately $9.2 million over the same period.

Capital expenditures and grants (in thousands)



For that five years, spending on roads, bridges and water and sewer infrastructure has represented the largest area of capital investment by the Town, amounting to $9.6 million or 50% of total reported capital expenditures.

Capital expenditures by type of infrastructure

(in thousands of dollars)	2010	2011	2012	2013	2014	Total
Land and land improvements	133	867	1,589	107	1,845	4,541
Buildings	–	88	1,066	31	20	1,205
Vehicles and equipment	219	97	599	261	874	2,050
Computer equipment	4	74	23	105	41	247
Roads and bridges	659	1,771	1,111	237	2,460	6,238
Water and sewer	–	318	–	1,741	1,344	3,403
Parks and fields	–	–	–	1,445	–	1,445
Total	1,015	3,215	4,388	3,927	6,587	19,129

State of Local Infrastructure

Overview of the Town's Infrastructure

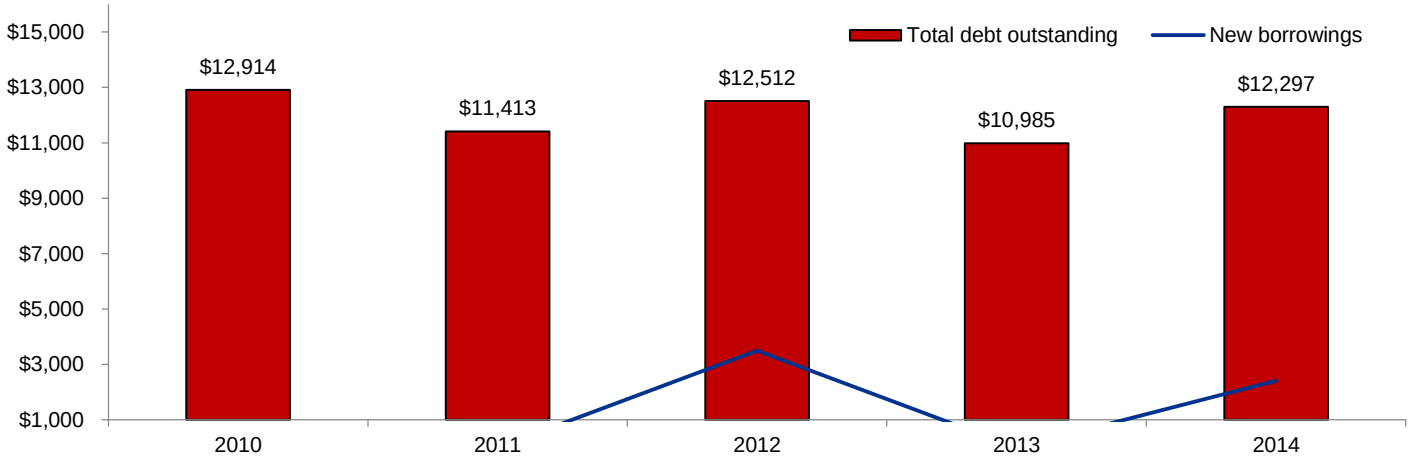
In order to fund its capital investments, the Town has relied on a combination of grants, long-term debt and its own financial resources (taxation revenue, user fees and reserve contributions) with grants funding and long-term debt funding 48% and 32% of capital expenditures, respectively, over the last five years.

Capital expenditures and funding

(in thousands of dollars)	2010	2011	2012	2013	2014	Total
Total capital expenditures	1,015	3,215	4,388	3,927	6,587	19,129
Grants received	930	2,488	535	1,430	3,792	9,175
Local financing requirement	85	727	3,853	2,497	2,795	9,954
Long-term debt issued	190	–	3,500	–	2,419	6,109
Funding from own resources	(105)	727	353	2,497	376	3,845

As at December 31, 2014, the Town had a total of $12.3 million in outstanding long-term debt, which is consistent with the level of debt outstanding over the last five years.

Long-term debt issued and year-end outstanding borrowings (in thousands)



State of Local Infrastructure

Historical, Replacement and Life Cycle Cost

For asset management purposes, the historical cost of the Town's infrastructure is arguably of limited value in that it reflects the cost at the date that the infrastructure investment was incurred, as opposed to what it would cost the Town to replace the infrastructure at the present time. Accordingly, the asset management plan considers the replacement cost of the Town's assets, based on cost estimates prepared by the Town's engineering advisors (for roads, water and wastewater infrastructure) and other sources of information for other assets. For the purposes of the asset management plan, replacement cost is defined as follows:

- Roads – road reconstruction costs at the end of useful life, including necessary curbs, sidewalks, drainage (as appropriate based on the type of road)
- Bridges and culverts – estimated reconstruction cost
- Water and wastewater pipes – replacement costs at the end of useful life, including hydrants, valves, road reinstatement and service to the property line
- Vehicles – estimated purchase price
- Bridges – estimated reconstruction or rehabilitation cost
- Buildings – estimated reconstruction cost

State of Local Infrastructure

Historical, Replacement and Life Cycle Cost

The current replacement value of the Town's infrastructure (expressed in 2015 dollars) is estimated to be in the order of $142.6 million, 88.7% of which ($126.5 million) relates to the municipal road, water and sewer network. Overall, the replacement value of the Town's infrastructure amounts to approximately $19,000 per resident or $47,000 per household, or almost three times the historical cost of infrastructure.

Replacement costs by component

	Quantity	Replacement Cost
Roads	61,982 m	$30,372,216
Water mains	26,229 m	$38,052,012
Wastewater mains	24,928 m	$58,081,914
Total linear infrastructure	113,139 m	$126,506,142
Buildings and facilities	13	$11,935,637
Bridges and culverts	12	$540,000
Vehicles and equipment	29	$3,631,000
Total in-scope infrastructure		$142,612,779

State of Local Infrastructure

Condition Assessment

In order to assess the condition of the Town's infrastructure, which in turn determines the timing for asset management activities, different approaches were adopted depending on the type of infrastructure:

- **Roads** – condition assessments for roads (paved, surface treated and gravel) were determined based on a *Condition Rating* that ranked the Town's road network on a scale of 0.00 (good) to 10.00 (poor) based on 13 factors including cracking, heaving and potholes.
- **Water and wastewater mains –** given the inability to directly observe underground infrastructure, condition assessments for water and wastewater mains were determined based on the estimated remaining useful life.
- **Facilities** – condition assessments for buildings condition assessments for the Town's facilities were determined based on the estimated remaining useful life of the individual buildings.
- **Vehicles** – condition assessments for the Town's fleet were determined based on the estimated remaining useful life of the individual vehicles.

In order to determine the allocation of the Town's infrastructure by condition category (good, fair, poor), the following benchmarks were utilized.

Condition assessment benchmarks

Infrastructure components	Basis of Assessment	Good	Fair	Poor
Roads	Condition rating	Less than 4.00	4.00 to 6.00	Greater than 6.00
Water and wastewater mains	Remaining useful life	Greater than 50%	10% to 50%	Less than 10%
Facilities	Remaining useful life	Greater than 50%	10% to 50%	Less than 10%
Vehicles	Remaining useful life	Greater than 50%	10% to 50%	Less than 10%

State of Local Infrastructure

Condition Assessment

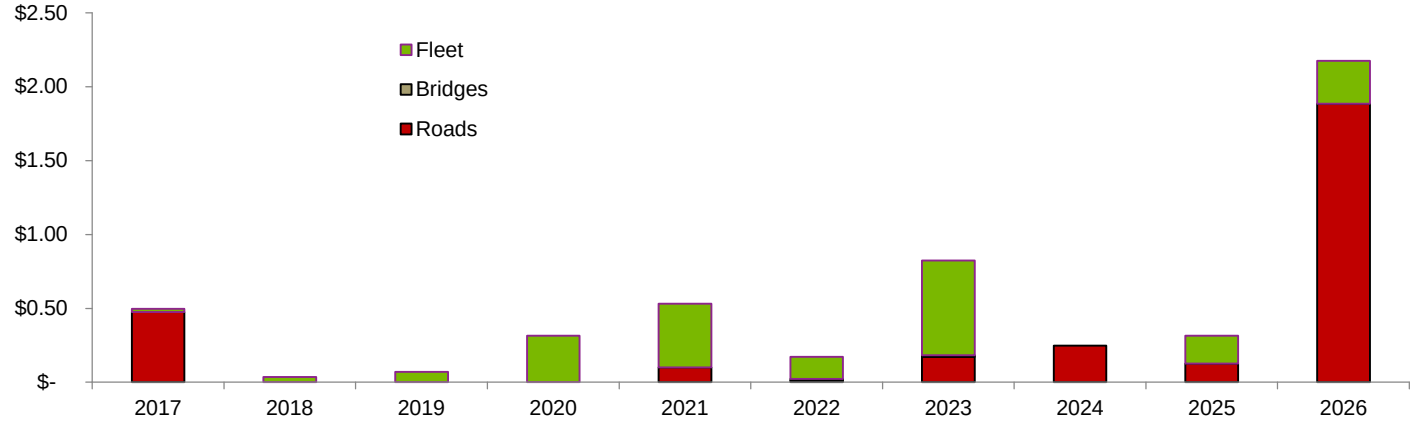
The results of the condition assessment indicate the following distribution of the Town's infrastructure:

Condition assessment results by infrastructure component

Infrastructure	Condition Assessment		
	Good	Fair	Poor
Roads	97.4%	1.0%	1.6%
Water mains	79.2%	20.8%	–
Wastewater mains	83.3%	16.7%	–
Buildings	61.5%	38.5%	–
Bridges	66.7%	25.0%	8.3%
Vehicles	52.0%	32.0%	16.0%

Based on the Town's condition assessment and estimated replacement cost of its assets, the total required reinvestment over the next 10 years is calculated to be in the order of $5.4 million, comprised of road, bridge and vehicle investment needs. Given the age of the Town's water and wastewater system, as well as its facilities, there are no projected major investment requirements for these asset categories beyond regular repairs and maintenance activities.

Projected future infrastructure investment requirements (in millions)



Asset Management Planning
for the Town of Portugal Cove-St. Philip's

Chapter III
Desired Levels of Service

Desired Levels of Service

Performance Measures

The Town's asset management strategy is intended to maintain its infrastructure at a certain capacity and in doing so, allow it to meet its overall objectives with respect to service levels for its residents. Highlighted below are examples of key performance measures and service level targets for the major components of the Town's infrastructure. A service level review is currently planned for 2016 through 2017.

Infrastructure Component	Performance Measure	Targeted Performance	Achievement Date
Roads	Percentage of major roads rated as good	50%	2015
Water	Number of water main breaks per 100 km	5.0	2015
Wastewater	Wastewater backups per 100 km	20.0	2015
Vehicles	Average age of municipal fleet (as a percentage of useful life)	50%	2015
Facilities	Average age of municipal facilities (as a percentage of useful life)	50%	2015

As part of its capital budgeting process, it is anticipated that the Town will monitor and report on its performance annually.

It is also important to recognize that in certain instances, a deviation from the Town's targeted service level may be the result of uncontrollable and unforeseen factors and any evaluation of the Town's performance should differentiate between controllable and uncontrollable events.

Asset Management Planning
for the Town of Portugal Cove-St. Philip's

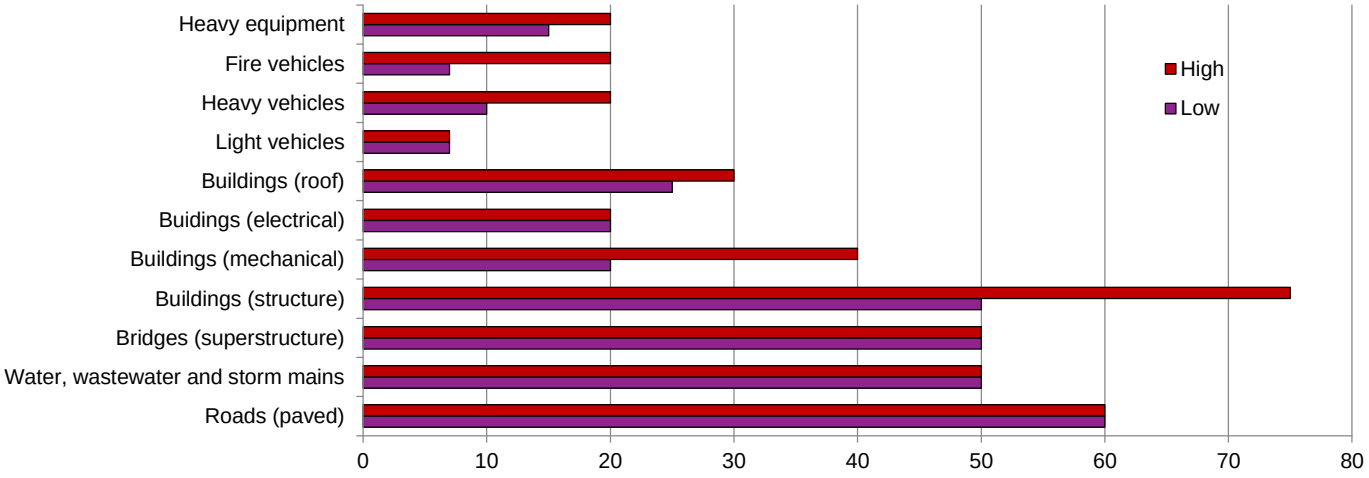
Chapter IV
Asset Management Strategy

Overview

For each significant component of the Town's infrastructure, asset management strategies have been or planned to be developed that outline:

1. The expected life cycle period for each asset, which defines the period that the Town will be required to maintain its infrastructure and secure the necessary financing for maintenance and replacement activities. As noted below, there is considerable variability in the estimated life cycle periods of the Town's infrastructure.

Life cycles for municipal infrastructure (in years)



2. The extent to which asset management activities can be integrated with other assets, most commonly the integration of above ground and below ground infrastructure (roads, water, wastewater and storm sewer). The integration of different infrastructure components is a critical element of the Town's asset management plan given the staggering of the end of useful life for major assets.
3. Criteria and strategies for the replacement and rehabilitation of the assets.
4. Consequences of not undertaking the necessary asset management activities, particularly the impact on useful lives and overall costs.
5. The determination of priorities when considering integrated assets (e.g. roads and pipes).

Asset management strategies for each component are presented on the following pages.

Asset Management Strategy

Municipal Paved Road Systems

Anticipated asset life cycle	The life cycle of newly constructed pavement systems are dependent on several factors including the pavement design, material and construction quality, traffic volume, traffic loading, and environmental conditions. The service life can be approximated by the category of road: 60 years for pavement with curb, 60 years for pavement with open ditch, and 10 years for surface treatments.
Integration opportunities	Various other elements may be considered as integrated with paved roads. These include buried assets in the corridor: water sewers, storm sewers, hydro, telephone, and cable. Other possible affected elements include traffic signals, street lighting, and sidewalks.
Rehabilitation and replacement criteria	To assess roads a Condition Index (CI) is used. CI is a numerical index between 0 and 10 and is based on a visual survey conducted, where 0 represents a new road in excellent condition and 10 an impassible road. If the CI ranks at 6, resurfacing should be considered, if CI ranges from 6 to 8, rehabilitation should be considered. In the case that the CI falls above 8, reconstruction is a more effective option.
Rehabilitation and replacement strategies	Several different rehabilitation strategies can be implemented. The selection of the strategy is dependent on the following criteria: PCI index, road classification (arterial, collector, local), urban or rural, ditched or curbed, benefit/cost ratio. These strategies may include: • Total reconstruction of pavement with 80mm to 120mm of hot mix asphalt (HMA) • Mill and resurface pavement with 50mm to 75mm of HMA • Strip and resurface pavement with 50mm to 75mm of HMA • Pulverize with underlying granular and surface with 50mm to 75mm of HMA • Mill and resurface patches of pavement with 50mm of HMA • Routing and crack sealing pavements
Life cycle consequences	Failure to fund timely pavement rehabilitation will result in a reduction in the pavement CI. CI's above 6 result in exponential increases in pavement rehabilitation costs. It also increases significantly road maintenance costs. Pavements identified by a CI above 8 typically reflect decreases in level of service and increasing associated degrees of risk and liability.
Integrated asset priorities	The schedule of pavement rehabilitation is often planned in conjunction with underground utility rehabilitation works. Most commonly it is the rehabilitation of pavement systems that prompts the replacement of underground sewer and water services in the infrastructure is also in deteriorating condition and approaching its useful service life. The incorporation of other infrastructure rehabilitation may be done alongside Engineering & Public Works Department internally or with, hydro, and telephone utilities externally.

Asset Management Strategy

Municipal Granular Road Systems

Anticipated asset life cycle	The life cycle of newly placed gravel road systems are dependent on several factors including the material and construction quality, design, traffic volume, traffic loading, and environmental conditions. The service life can be approximated by the category of road: 60 years for earth with open ditch and 75 years for gravel with open ditch. Sufficient maintenance provided during the service life will help preserve conditions using such strategies as machine grading, ditching and brushing, and granular top up.
Integration opportunities	Various other elements may be considered as integrated with paved roads. These include buried assets in the utility corridor: water sewers, storm sewers, hydro, telephone, and cable.
Rehabilitation and replacement criteria	To assess roads a Condition Index (CI) is used. CI is a numerical index between 0 and 10 and is based on a visual survey conducted, where 0 represents a new road in excellent condition and 10 an impassible road. If the CI ranks at 6, resurfacing should be considered, if CI ranges from 6 to 8, rehabilitation should be considered. In the case that the CI falls above 8, reconstruction is a more effective option.
Rehabilitation and replacement strategies	Several different rehabilitation strategies can be implemented. The selection of the strategy is dependent on the following criteria: GCI index, road classification (collector, local), urban or rural, benefit/cost ratio. In a rehabilitation scenario, the top 50 to 100 mm of gravel type “A” would be replaced. In the case of total reconstruction the work would include the replacement of the granular road base and the granular surface.
Life cycle consequences	The effects of gravel road rehabilitation that is insufficiently funded are reflected in the CI index which as a result will typically fall above 6. The poor quality of the roadway will be reflected in rising reconstruction and maintenance costs. Roads which are identified by a GCI of 8 or higher typically show signs of a poor level of service increasing the associated degrees of risk and liability.
Integrated asset priorities	The schedule of road rehabilitation is often planned in conjunction with underground utility rehabilitation works. Most commonly it is the rehabilitation of gravel roads that prompts the replacement of underground utilities and sewer and water services if those services are deteriorating and approaching their useful service life.

Asset Management Strategy

Water Distribution Systems

Anticipated asset life cycle	The life cycle ranges from 30 to 100 years. Examining individual elements, the expected service life of a water plant or pump station varies from 30 to 50 years. Valve replacement typically occurs every 30 to 50 years. Similarly, the hydrant life cycle is predicted as 40 years and chambers as 50 years. For watermains the life cycle can be approximated between 50 and 100 years and 75 years for water storage. These values hold true under the assumption that the elements are properly maintained throughout their service lives.
Integration opportunities	The replacement of these components may either be implemented as part of other construction work or may be conducted as a standalone project. The replacement may be incorporated into resurfacing and road reconstruction work which could include the integration of other utilities (wastewater, telephone, hydro, cable, etc). In the case that full road replacement is not intended, standalone replacement of watermains can be carried out using trench cut and repair.
Rehabilitation and replacement criteria	Several criteria used to evaluate and prioritize the watermain replacement schedules include: age, break history of the pipe, material type, size, surrounding soil conditions, pressure related issues, and hydrant spacing. In addition to these criteria other factors, such as the intent of future road rehabilitation, will modify the priority of the replacement schedule accordingly. Available historical data, which includes but is not limited to pipe failures and pipe break history, is used to aid in the replacement criteria. When a continued increase in maintenance costs reaches an uneconomical value, the replacement of the pipe is justified.
Rehabilitation and replacement strategies	The rehabilitation strategy is dependent on the current state of the pipe. It is difficult to assess the state of deterioration in buried services, as such, high pressure cleaning and videotaping of watermains may be instituted. Several different rehabilitation approaches can be taken and include full replacement, cleaning and relining, and potential pipe bursting. Cathodic protection, when used in conjunction with these strategies, prolongs the service life. The strategy is chosen based primarily on the available data including the age, size, material type, break history, and hydraulic requirements.
Life cycle consequences	The repercussions of unexpected failure will be disastrous. Due to unaccounted circumstances and unpredictable events, it is possible that some pipe materials with an expected service life of 100 years will require replacement earlier than expected, maybe after only 30 years. In contrast, pipe materials with an expected life of 100 years may have the service life extended by an additional 50 years, with timely maintenance and rehabilitation.
Integrated asset priorities	Replacement of deteriorating watermains is carried out based on the associated level of risk. The sequence in which rehabilitation or replacement is carried out is reliant on the priority of the watermain and the impact of disruption to service. High priority watermains include those where fire protection, water quality, and service disruption will results in water loss and collateral damage. Typically the integration of road rehabilitation with watermain replacement will increase the priority of the project. The project may also incorporate utilities such as wastewater, hydro, telephone, and cable.

Asset Management Strategy

Wastewater Collection Systems

Anticipated asset life cycle	The life cycle ranges from 15 to 100 years. Wastewater plants and sewage pump stations vary from 30 to 50 years. Examining individual elements, the expected service life of wastewater plant equipment, pumps, blowers, and SCADA systems ranges from 15 to 50 years. A manhole life cycle is predicted to be between 30 to 75 years and wastewater trunks between 50 to 100 years. These values hold true under the assumption that the elements are properly maintained throughout their service lives.
Integration opportunities	The replacement of these components may either be implemented as part of other construction work or may be conducted as a standalone project. The replacement may be incorporated into resurfacing and road reconstruction work which could include the integration of other utilities (wastewater, telephone, hydro, cable, natural gas, etc). In the case that full road replacement is not intended, standalone replacement of sanitary trunk can be carried out using trench cut and repair.
Rehabilitation and replacement criteria	The assessment of the replacement schedule is determined primarily through conducting a CCTV inspection. The results of the inspection will be evaluated to estimate the degree of deterioration of the infrastructure. Included in the assessment are other criteria such as the material type, visible local collapses, upsizing requirements, and synchronization with roads rehabilitation programs.
Rehabilitation and replacement strategies	The rehabilitation strategy is dependent on the assessed condition rating of the infrastructure. The optimal rehabilitation method is determined by assigning and examining the condition rating of the pipe. Most commonly the selected strategy is replacement of collapsing and deteriorated pipe. For localized damage, other practices may be instituted which include: spot repair, joint sealing, and Cured in Place Pipe (CIPP).
Life cycle consequences	The process of degradation in sanitary sewers is similar to that of storm sewers. The repercussions of failure in sanitary sewers are considerably more substantial. Structural deterioration may lead to infiltration of ground water into the system which results in an increased volume of sewage directed to waste water treatment plants. These plants may not be designed to meet the growing demand result in increase in waste water flow. Infiltration of ground water can also result in the deposition of sediment and debris, significantly reducing the flow capacity for waste water. Continued maintenance and rehabilitation is essential for the performance and reliability of any type of buried infrastructure.
Integrated asset priorities	Replacement of deteriorating sanitary sewers is carried out based on the assessed condition. In the event that replacement is selected as the rehabilitation strategy, the project may expand to include other assets such as sidewalks, road trench cuts, or full pavement. Other utilities may also become included in the scope of work: hydro, telephone, and cable. Typically the integration of road rehabilitation will increase the priority of the project.

Asset Management Strategy

Buildings

Anticipated asset life cycle.	The Life Cycle ranges from 15 to 50 years. Examining individual elements, the expected service life of the roof system varies from 25 to 30 years. Hot boiler or carpeting replacement typically occurs every 15 years. Similarly, the building superstructure life cycle is predicted as 50 or more years. These values hold true under the assumption that the elements are properly maintained throughout their service lives.
Integration opportunities	Assets are appraised separately. The projects however are assembled by asset to make use of the "economics of scale" principle. Special attention is given to ensure that the disruption of asset operations is minimized over its service life.
Rehabilitation and replacement criteria	Facility investment requirements should be based on regularly scheduled inspections of major facility components (e.g. roof, HVAC, electrical, envelope).
Rehabilitation and replacement strategies	The replacement schedule will be dictated by the actual asset conditions at the time and the stage in its life cycle. Replacement may also be undertaken to meet any changes in safety, industry or technological specifications and standards. Critical components which should be given special attention with regularly scheduled inspections of the facility roof and HVAC systems. Any scheduled improvements should take into consideration the institution of economical energy efficient systems and equipment.
Life cycle consequences	Degradation of the building and its components are noticed, as well as increases in operational costs due to inefficiencies, health and safety concerns, and depreciation of Administration assets.
Integrated asset priorities	The schedule of replacement is dependent on the facility's stage in its life cycle, the actual condition at the time, and the convenience of performing the replacement without disturbing the operations.

Asset Management Strategy

Bridges and Large Culverts

Anticipated asset life cycle	The life cycle of bridges and culverts is considerably variable and dependent on construction methodology and materials, traffic loading, traffic volume, and environmental exposure conditions (temperatures, chloride concentrations, etc). Bridges and concrete culverts constructed after 2000 can have an expected life cycle of up to 75 years, whereas those constructed pre 2000 have an expected life of 25 to 50 years, depending on construction material and other factors. The approximated service life of steel corrugated culverts is 40 years.
Integration opportunities	Typically it is not integrated with the other work other than potential road widening or resurfacing projects.
Rehabilitation and replacement criteria	The ranking of bridge and culvert work is based on several select criteria: safety, level of service, traffic volume and loading, and preservation of infrastructure. To assess the condition of the structures bi-annual visual inspections are conducted and if deemed necessary detailed bridge condition surveys are completed to better evaluate present conditions. In the inspections, bridge components are assessed individually recording the severity and degree of deterioration and the overall condition. Each bridge is assigned a Bridge Condition Index value between 100 and 0 where a value of 100 indicates excellent conditions and a value of 0 indicates poor deteriorating conditions.
Rehabilitation and replacement strategies	The specification of the bridge or culvert rehabilitation strategy is reliant on the structure's age, data and observations acquired through inspections and condition surveys, and the estimated remaining service life. The following strategies should be implemented at the specified age: at 15 years the asphalt deck should be resurfaced and at 30 years the concrete deck should be patched, waterproofed and the joints replaced; at 50 years replace entire concrete deck.
Life cycle consequences	The reduction of bridge and culvert service life endangers user safety and results in a decrease of level of service.
Integrated asset priorities	Typically it is not integrated with the other work other than potential road widening or resurfacing projects.

Asset Management Strategy

Vehicles and Moveable Equipment

Anticipated asset life cycle.	Service life is dependent on the type or vehicle/equipment and service area. The expected life cycle of cars and pickup trucks is 5-7 years, 10 years for duty trucks, 10-15 years for front loaders, backhoes and tractors, and 20-25 years for fire vehicles.
Integration opportunities	Integrated with operation adjustments, modifications in service levels, meeting environmental regulations, technological upgrades and financial plans.
Rehabilitation and replacement criteria	Replacement of fleet will be dictated by the results of lifecycle cost analysis considering the following variables: repairs, insurance, fuel, depreciation, and downtime costs.
Rehabilitation and replacement strategies	In the case that vehicular repairs exceed 40% of replacement costs, replacement is the optimal strategy. Other strategies include leasing opportunities, refurbishing, seasonal rentals, or tendering services to a third party.
Life cycle consequences	Vehicles that are not maintained, or as vehicles reach the end of the service lives the efficiency of vehicles decrease, seeing an increase in cost per km. In the event of service interruption, work force costs are increased due to extended work schedules and overall loss of production.
Integrated asset priorities	Not applicable.

Asset Management Strategy

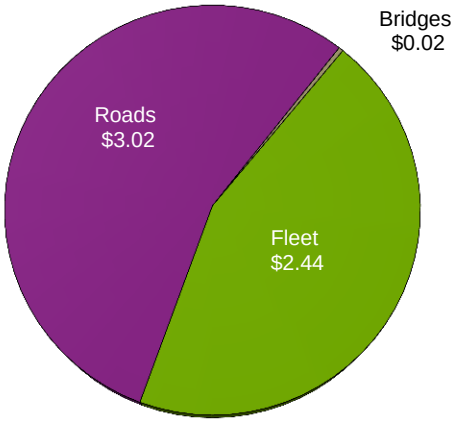
Financial Requirements

For asset management planning purposes, the financial requirement associated with the Town's infrastructure requirements can be divided into two categories:

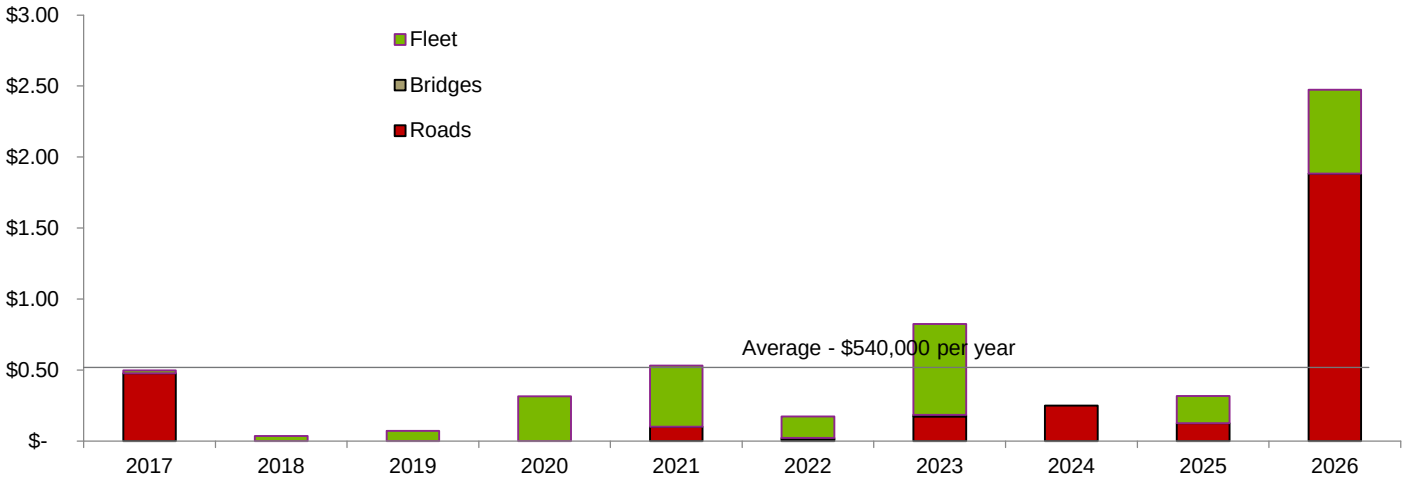
- **Immediate infrastructure investment needs.** Based on the results of the condition assessment, an indication as to the types of asset management activities required over the next ten years, and their associated costs, has been developed. Overall, it is estimated that the Town would need to invest $5.4 million in its infrastructure to maintain those assets that are approach the end of useful life. Additional investments necessary to accommodate growth or regulatory changes are not considered in this amount.

  On average, the Town's immediate infrastructure investment needs amount to approximately $540,000 per year.

Immediate infrastructure needs (in millions)



Projected future infrastructure investment requirements by year (in millions)



Asset Management Strategy

Financial Requirements

- **Sustainable life cycle requirements.** In addition to its immediate needs, the Town will also be required to fund the cost associated with all of its life cycle activities over the useful life of its infrastructure. As the Town has traditionally relied on grants and loans to fund a major portion of major infrastructure costs, its historical levels of capital investment have fluctuated significantly. However, if the Town chose to fund its life cycle requirements evenly over the life of its assets, it would establish a regular and sustainable stream of funding for ongoing capital asset management that would be equal to the total replacement cost of the asset divided by its useful life.

  Based on this approach, we have calculated the average annual contribution required to ensure a sustainable stream of funding for the Town's assets to be in the order of $2.9 million before consideration of grants.

  Estimated sustainable life cycle requirement

Asset Component	Total Replacement Cost	Estimated Useful Life	Annual Requirement
Roads	$30,372,216	60 years	$506,000
Water mains	$38,052,012	50 years	$760,000
Wastewater mains	$58,081,914	60 years	$970,000
Buildings and facilities	$11,935,637	50 years	$240,000
Bridges and culverts	$540,000	30 years	$20,000
Vehicles and equipment	$3,631,000	10 years	$363,000
Total	$142,612,779		$2,859,000

  Under the current funding mechanism for capital projects, the Town is expecting to receive grants equal to 70% of the total cost of qualifying projects, which are assumed to be those that involve road, water and wastewater projects. Other infrastructure funding needs, including facilities and vehicles, are expected to be funded entirely by the Town, either through the issuance of debt or from taxation revenues.

Asset Management Strategy

Prioritizing Infrastructure Requirements

After consideration of capital grants, the Town's estimated local share of its infrastructure investment requirements is $1.6 million per year, as summarized below.

Estimated sustainable life cycle requirement

Asset Component	Annual Reinvestment Requirement			Estimated Grant Revenues	Local Funding Requirement
	Identified 10-Year Needs	Sustainable Requirement	Total		
Roads	$302,000	$506,000	$808,000	$566,000	$242,000
Water mains	–	$760,000	$760,000	$532,000	$228,000
Wastewater mains	–	$970,000	$970,000	$679,000	$291,000
Buildings and facilities	–	$240,000	$240,000	–	$240,000
Bridges	$2,000	$20,000	$22,000	–	$22,000
Vehicles and equipment	$244,000	$363,000	$607,000	–	$607,000
Total	$548,000	$2,859,000	$3,407,000	$1,777,000	$1,630,000

In the event that the Town is unable to fully fund its infrastructure investment requirements, it will be required to prioritize where and how it invests its funds. For the purposes of the asset management plan, priority infrastructure is considered to represent assets that:

- Provide the greatest impact to residents. For example, arterial roads will generally represent a priority over local roads due to the higher traffic volumes.
- Address the greatest risks. With the potential to impact on public health, water and wastewater infrastructure is often viewed as a priority over roads, where poor infrastructure conditions can be managed through detours, speed limit reductions and other means. Similarly, fire and winter maintenance vehicles typically rank higher than other municipal vehicles due to their contribution towards the health and safety of the Town's residents.
- Have the greatest probability of failure. Infrastructure in poor condition has a greater risk of failure than infrastructure in good condition and as such, represents a higher priority from a reinvestment perspective.

Based on these considerations, the Town's infrastructure priorities over the next five years are identified on the following page.

As part of its ongoing asset management activities, the Town will review its prioritization criteria and asset rankings and, if considered necessary, make appropriate revisions.

Asset Management Strategy

Prioritizing Infrastructure Requirements

Infrastructure Priority	Estimated Cost	Rationale
Reconstruction of Neary's Pond Road	$476,540	• Poor condition of road surface
Reconstruction of Georges Road	$29,559	• Poor condition of road surface
Reconstruction of Hammon Estates	$101,530	• Poor condition of road surface
Reconstruction of Western Heights	$143,890	• Poor condition of road surface
Reconstruction of School Road	$127,887	• Poor condition of road surface
Reconstruction of Hussey's Road	$53,755	• Poor condition of road surface
Reconstruction of Day's Road	$66,012	• Poor condition of road surface
Reconstruction of West Point Road	$93,770	• Poor condition of road surface
Reconstruction of Dan's Road	$32,093	• Poor condition of road surface
Reconstruction of Round Pond Road	$273,827	• Poor condition of road surface
Reconstruction of Jenny Lynn Drive	$101,055	• Poor condition of road surface
Reconstruction of Tolt Road	$1,482,145	• Poor condition of road surface
Reconstruction of Rainbow Gull Road	$27,156	• Equipment age approaching end of useful life

Asset Management Planning
for the Town of Portugal Cove-St. Philip's

Chapter V
Financing Strategy

Financing Strategy

Assumptions and Outcomes

Ultimately, the Town's asset management plan will be used to inform the Town's capital budgeting process by identifying priority infrastructure investments and quantifying the total financing requirement necessary to sustain its infrastructure. In order to demonstrate the financial impact of the Town's asset management plan, we have prepared a series of financial projections that considers the following key assumptions:

1. Over the ten year projection period, the Town will increase its funding for capital reinvestments to a level that is consistent with the requirement identified in the asset management plan. To the extent that funds are not expended, the Town's capital funding will be directed to reserve funds that will finance future capital expenditures.
2. In addition to capital reserve funds, the Town will also introduce the following operational reserves:
    - Debt repayment reserve, the purpose of which is to provide the Town with a source of funds in the event of unforeseen issues impacting its ability to fund its outstanding debt;
    - Tax stabilization reserve, which is intended to provide a cushion against unforeseen major operating expenditures. The tax stabilization reserve will be phased in over the ten year projection period and will include operational surpluses should any arise
3. Operating costs are projected to increase at the rate of 2.5% per year and residential growth by 1% per year
4. New infrastructure investments relating to new services or growth will be funded through a combination of senior government grants and levies charged to those property owners receiving the services, with the cost of these investments not funded through the municipal levy.
5. Over the ten-year projection period, the Town will increase water and wastewater rates to a level that funds 76.6% of water and wastewater operating costs, with capital expenditures for water and wastewater funded through municipal taxes. .
6. The Town will issue new long-term debt only to the extent that existing debt is repaid. This will result in the capping of the Town's debt servicing costs at 2017 levels ($2,943,000).

As noted in the attached financial projections (Appendix J), the Town is projected to increase its local funding for capital to approximately $1.6 million at the end of the ten year projection period, which is calculated to be the required level of funding necessary to address its long-term sustainable capital needs. Overall, the Town's taxes are projected to increase an average of 3.1% per year every year over the ten year projection period, reflecting (i) increased capital financing; (ii) the establishment of tax stabilization and Capital reinvestment reserves of $490,000 and $10,350,000, respectively, by 2026; (iil) operating inflation of 2.5% per year; and (iv) 76.6% cost recovery for water and wastewater services.

Asset Management Planning
for the Town of Portugal Cove-St. Philip's

Chapter VI
Financial Projections

Portugal Cove St. Philip's

Financial Projections
Financial Position

Schedule of Projected Financial Position
For the Years Ending December 31
(in thousands)

	Proposed 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
MUNICIPAL OPERATING COSTS											
General government	2,055	2,048	2,099	2,151	2,205	2,260	2,317	2,375	2,434	2,495	2,557
Protective services	826	647	663	680	697	714	732	750	769	788	808
Transportation	1,785	1,817	1,862	1,909	1,957	2,006	2,056	2,107	2,160	2,214	2,269
Water and w astew ater	1,198	1,196	1,226	1,257	1,288	1,320	1,353	1,387	1,422	1,458	1,494
Garbage collection and recycling	429	440	451	462	474	486	498	510	523	536	549
Planning and development	440	451	462	474	486	498	510	523	536	549	563
Recreation and culture	970	983	1,008	1,033	1,059	1,085	1,112	1,140	1,169	1,198	1,228
Fiscal services (excluding debt servicing)	520	493	505	518	531	544	558	572	586	601	616
TOTAL OPERATING EXPENDITURES	**8,223**	**8,075**	**8,276**	**8,484**	**8,697**	**8,913**	**9,136**	**9,364**	**9,599**	**9,839**	**10,084**
CAPITAL, RESERVES AND DEBT SERVICING											
(1) Debentures:											
Debt servicing costs	2,583	2,943	2,917	2,845	2,844	2,843	2,796	2,795	2,794	2,793	2,792
Proceeds from issuance of debt	(4,640)	(1,198)	(1,098)	(1,169)	(1,480)	(1,694)	(1,389)	(2,093)	(1,361)	(1,602)	(2,897)
	(2,057)	1,745	1,819	1,676	1,364	1,149	1,407	702	1,433	1,191	(105)
(2) Reserves and reserve funds:											
Contribution to/from recreation reserve	(440)	-	-	-	-	-	-	-	-	-	-
Contribution to/from debt repayment reserve	-	-	-	-	-	-	-	-	-	-	-
Contribution to/from tax stabilization reserve (contingency)	40	40	40	40	40	40	40	40	40	40	40
Contribution to/from capital reinvestment reserve	258	160	320	480	640	800	960	1,120	1,280	1,440	1,600
Contribution to/from other reserves	-	-	-	-	-	-	-	-	-	-	-
	(142)	200	360	520	680	840	1,000	1,160	1,320	1,480	1,640
(3) Capital expenditures:											
Municipal infrastructure	8,394	1,541	1,098	1,169	1,480	1,776	1,399	2,242	1,581	1,717	4,669
	8,394	1,541	1,098	1,169	1,480	1,776	1,399	2,242	1,581	1,717	4,669

Portugal Cove St. Philip's

Financial Projections
Financial Position (Continued)

		Proposed 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(4)	**Grants:**											
	Municipal operating grant	(243)	(243)	(243)	(243)	(243)	(243)	(243)	(243)	(243)	(243)	(243)
	Government transfers for capital	(3,169)	(343)	-	-	-	(82)	(10)	(149)	(220)	(115)	(1,772)
	Provincial share of debt servicing costs	(533)	(562)	(460)	(424)	(225)	(225)	(225)	(225)	(225)	(225)	(225)
	Other operating grants	(21)	(155)	(140)	(140)	(140)	(140)	(140)	(140)	(140)	(140)	(140)
		(3,966)	(1,303)	(843)	(807)	(608)	(690)	(618)	(757)	(828)	(723)	(2,380)
(5)	**User fees and other revenues:**											
	Water and sewer	(918)	(916)	(939)	(963)	(987)	(1,011)	(1,036)	(1,062)	(1,089)	(1,117)	(1,144)
	Licenses, permits and fees	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)
	Revenue carryforward from prior year	(495)	(220)	(200)	-	-	-	-	-	-	-	-
	Investment income	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)	(135)
		(1,847)	(1,570)	(1,573)	(1,397)	(1,421)	(1,445)	(1,470)	(1,496)	(1,523)	(1,551)	(1,578)
(6)	**Muncipal levy:**											
	Property tax	(8,112)	(8,195)	(8,644)	(9,152)	(9,699)	(10,050)	(10,361)	(10,722)	(11,089)	(11,460)	(11,837)
	Business tax	(493)	(493)	(493)	(493)	(493)	(493)	(493)	(493)	(493)	(493)	(493)
		(8,605)	(8,688)	(9,137)	(9,645)	(10,192)	(10,543)	(10,854)	(11,215)	(11,582)	(11,953)	(12,330)
TOTAL MUNICIPAL REVENUES		**(14,418)**	**(11,561)**	**(11,553)**	**(11,849)**	**(12,221)**	**(12,678)**	**(12,942)**	**(13,468)**	**(13,933)**	**(14,227)**	**(16,288)**
NET MUNICIPAL BUDGET		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
AVERAGE RESIDENTIAL PROPERTY TAX PER HOUSEHOLD		**2,629**	**2,630**	**2,747**	**2,879**	**3,021**	**3,100**	**3,164**	**3,242**	**3,319**	**3,397**	**3,473**
PERCENTAGE INCREASE FROM PRIOR YEAR		**6.1%**	**0.0%**	**4.4%**	**4.8%**	**4.9%**	**2.6%**	**2.1%**	**2.5%**	**2.4%**	**2.3%**	**2.3%**
									Average annual tax increas			**3.1%**

Portugal Cove St. Philip's

Financial Projections
Debt Servicing

Summary of Projected Debt Servicing Costs For the Years Ending December 31 (in thousands)												
	Budget 2015	Proposed 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(1) Debt servicing costs for existing debt												
Provincial Share of Debt charges	$ 533	533	562	460	424	225	225	225	225	225	225	225
Parks-RBC	281	281	281	281	281	281	281	281	281	281	281	281
RBC MYCW - 2014	153	153	153	153	153	153	153	153	153	153	153	153
RBC compactor	43	43	43	43	43	43	43	43	-	-	-	-
RBC Thorburn Road and Rainbow Parking	42	42	42	42	42	42	42	42	42	42	42	-
Maggies Place	-	91	91	91	91	91	91	91	91	91	91	-
CIBC 2208857	2	-	30	30	30	3	-	-	-	-	-	-
CIBC 2208954	30	30	-	-	-	-	-	-	-	-	-	-
CIBC 2209357	41	9	-	-	-	-	-	-	-	-	-	-
CIBC 2209454	75	17	-	-	-	-	-	-	-	-	-	-
CIBC 2209950	172	172	172	172	172	172	172	43	-	-	-	-
BMO 6065-768	68	70	70	12	-	-	-	-	-	-	-	-
BMO 6066-605	215	209	209	209	35	-	-	-	-	-	-	-
BMO 6992-967	40	40	40	40	40	40	11	-	-	-	-	-
BMO 6993-177	15	15	15	15	15	15	15	15	15	1	-	-
BMO 6067-826	92	92	92	92	92	15	-	-	-	-	-	-
BMO 6075-537	85	84	84	84	84	84	84	84	20	-	-	-
CIBC 5182751	24	21	21	21	21	21	21	21	7	-	-	-
BMO 6074-955	44	44	44	44	44	44	44	7	-	-	-	-
BMO 6075-915	31	31	31	31	31	31	31	31	13	-	-	-
BMO 6081-573	37	37	37	37	37	37	37	37	37	15	-	-
Fire Truck -RBC	-	45	45	45	45	45	45	45	45	45	45	-
2015-2016 debt issuance servicing costs	313	524	733	733	733	733	733	434	434	163	163	163
	2,336	2,583	2,795	2,635	2,413	2,075	2,028	1,552	1,363	1,016	1,000	822

Portugal Cove St. Philip's

Financial Projections
Debt Servicing (Continued)

		Budget	Proposed										
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(2)	**Debt servicing costs for new debt issuances**												
	2017 debt issuance servicing costs			148	148	148	148	148	148	148	148	148	148
	2018 debt issuance servicing costs				134	134	134	134	134	134	134	134	134
	2019 debt issuance servicing costs					150	150	150	150	150	150	150	150
	2020 debt issuance servicing costs						337	337	337	337	337	337	337
	2021 debt issuance servicing costs							46	46	46	46	46	46
	2022 debt issuance servicing costs								429	429	429	429	429
	2023 debt issuance servicing costs									188	188	188	188
	2024 debt issuance servicing costs										346	346	346
	2025 debt issuance servicing costs											15	15
	2026 debt issuance servicing costs												177
		-	-	148	282	432	769	815	1,244	1,432	1,778	1,793	1,970
Total projected debt servicing costs		$ 2,336	2,583	2,943	2,917	2,845	2,844	2,843	2,796	2,795	2,794	2,793	2,792
New debt issuances - capacity - (4% - 10 years)			$4,640	1,200	1,087	1,217	2,733	373	3,480	1,525	2,806	122	1,436
Projected Capital Funding requirement - Towns Portion - 30%				1,198	1,098	1,169	1,480	1,694	1,389	2,093	1,361	1,602	2,897

Financial Projections
Capital Funding

Summary of Projected Capital Expenditures For the Years Ending December 31 (in thousands)	Proposed	Projected									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Identified priority capital requirements:											
Roads	-	476	-	-	-	101	12	173	248	126	1,884
Water distribution system	-	-	-	-	-	-	-	-	-	-	-
Wastewater collection system	15	-	-	-	-	-	-	-	-	-	-
Buildings	757	-	-	-	-	-	-	-	-	-	-
Bridges	220	-	-	-	-	-	10	10	-	-	-
Fleet	1,411	20	35	70	315	431	150	640	-	190	590
	2,403	496	35	70	315	532	172	823	248	316	2,474
Other assets not included in asset management plan	5,991	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total capital expenditures	8,394	1,496	1,035	1,070	1,315	1,532	1,172	1,823	1,248	1,316	3,474
Inflation adjustment factor	100.0%	103.0%	106.1%	109.3%	112.6%	115.9%	119.4%	123.0%	126.7%	130.5%	134.4%
PROJECTED CAPITAL FUNDING REQUIREMENT	**$ 8,394**	**1,541**	**1,098**	**1,169**	**1,480**	**1,776**	**1,399**	**2,242**	**1,581**	**1,717**	**4,669**

Portugal Cove St. Philip's

Financial Projections
Water and Wastewater Revenue

Summary of Projected Water and Wastewater Revenues
For the Years Ending December 31
(in thousands)

	Budget 2015	Proposed 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Projected water and wastewater costs	$ 960	1,198	1,196	1,226	1,257	1,288	1,320	1,353	1,387	1,422	1,458	1,494
Cost recovery percentage	87.4%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%
Projected water and wastewater revenues	$ 839	918	916	939	963	987	1,011	1,036	1,062	1,089	1,117	1,144

Portugal Cove St. Philip's

Financial Projections
Reserve Fund Balances

Summary of Projected Reserve Fund Balances For the Years Ending December 31 (in thousands)											
	Proposed 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(1) Recreation and Lifestyle Centre reserve fund											
Balance, beginning of year	440	-	-	-	-	-	-	-	-	-	-
Transfers to (from) reserve	(440)	-	-	-	-	-	-	-	-	-	-
Interest earned	-	-	-	-	-	-	-	-	-	-	-
Balance, end of year	-	-	-	-	-	-	-	-	-	-	-
(2) Debt repayment reserve											
Balance, beginning of year	$ -	-	-	-	-	-	-	-	-	-	-
Transfers to (from) reserve	-	-	-	-	-	-	-	-	-	-	-
Interest earned	-	-	-	-	-	-	-	-	-	-	-
Balance, end of year	$ -	-	-	-	-	-	-	-	-	-	-
(3) Tax stabilization reserve											
Balance, beginning of year	$ -	40	81	123	166	210	255	301	347	394	442
Transfers to (from) reserve	40	40	40	40	40	40	40	40	40	40	40
Interest earned	-	1	2	3	4	5	6	6	7	8	9
Balance, end of year	$ 40	81	123	166	210	255	301	347	394	442	491
(4) Capital reinvesment reserve											
Balance, beginning of year	$ 474	744	920	1,262	1,772	2,454	3,311	4,347	5,565	6,969	8,563
Transfers to (from) reserve	258	160	320	480	640	800	960	1,120	1,280	1,440	1,600
Interest earned	12	16	22	30	42	57	76	98	124	154	187
Balance, end of year	$ 744	920	1,262	1,772	2,454	3,311	4,347	5,565	6,969	8,563	10,350

cutting through complexity

KPMG CONFIDENTIAL

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.