KPMG

cutting through complexity

Corporation of the Township of Nairn and Hyman

Municipal Asset Management Plan (Updated)

December 16th, 2016

Table of Contents

Executive Summary

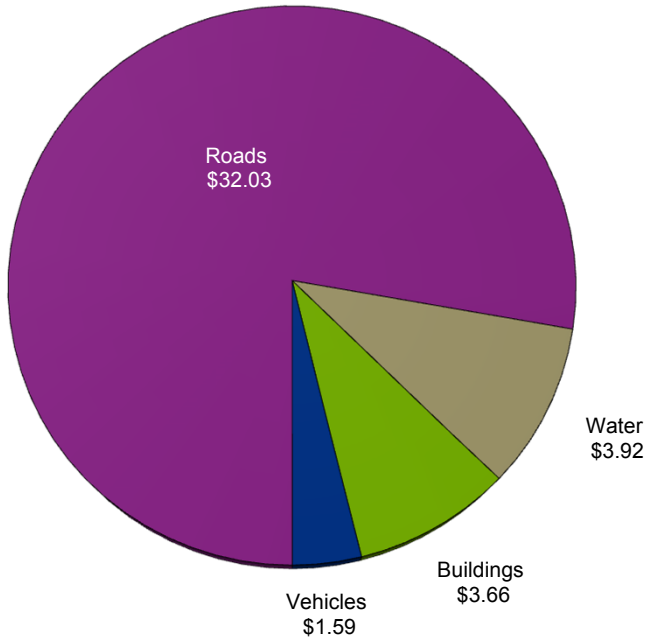
The development of an asset management plan has been identified as a pre-requisite for the receipt of funding from the Province of Ontario (the 'Province') under the Municipal Infrastructure Investment Initiative ('MIII') and as such, represents an important first step in obtaining financing for necessary infrastructure investments. That said, planning for capital reinvestment is essential with or without the incentive provided under MIII, particularly given that a number of municipalities are now approach end-of-useful-life for significant components of their infrastructure. This document is an update of the Municipality's original asset management plan prepared in 2013.

Current state of infrastructure

Infrastructure represents a major investment on the part of the Township of Nairn and Hyman (the 'Municipality'), with the estimated replacement cost of its assets – roads, buildings, vehicles, equipment and pipes – amounting to more than $41 million, or $92,000 per resident. In addition to the cost of replacing its assets, the Municipality is also required to repair and rehabilitate its infrastructure over its entire useful life, with the cost of these life cycle activities for linear infrastructure (roads and pipes) amounting to $81 million, or $169,000 per household.

While the amounts of the Municipality's replacement and life cycle costs are significant, the real pressure from the perspective of its infrastructure comes from its current condition. Condition analysis conducted as part of the asset management planning process indicates that a significant proportion of the Municipality's infrastructure is either in fair or poor condition. Addressing the current state of the Municipality's infrastructure, which will deteriorate further if immediate maintenance isn't performed, is expected to cost approximately $6.9 million over the next ten years.

Replacement value by type of asset (in millions)



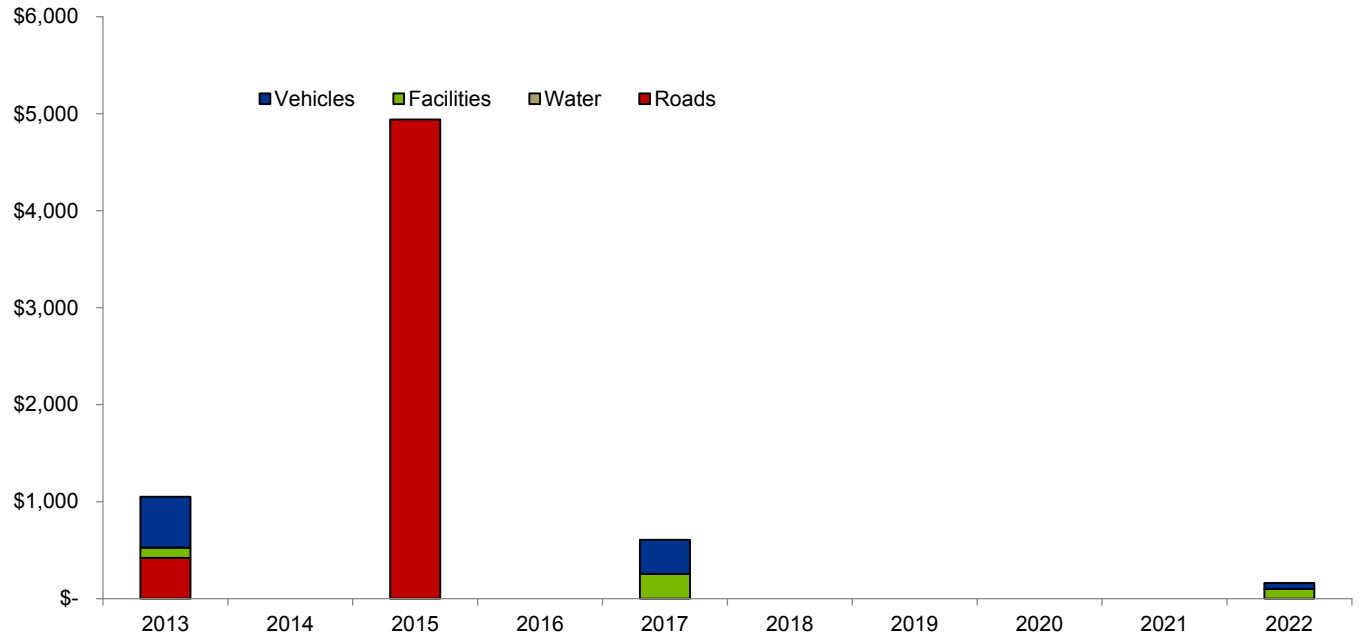
The high cost of future infrastructure investments reflects the declining state of the Municipality's assets, with a sizeable portion of assets rated as either poor or fair. Details of the Municipality's infrastructure condition assessment and identified capital investment requirements over the next ten years are provided on the following page.

Executive Summary

Condition assessment results by infrastructure component

Infrastructure	Condition Assessment		
	Good	Fair	Poor
Roads	25%	72%	3%
Water mains	100%	–	–
Buildings	50%	25%	25%
Vehicles	44%	23%	33%

Projected future infrastructure investment requirements (in thousands)



Executive Summary

Asset management strategies

As required under MIII, this report identifies the required asset management strategies for the Municipality based on the types of infrastructure maintained as well as its current condition. As noted earlier, the Municipality would be required to spend an average of $690,000 per year over the next ten years in order to address the current issues identified with its infrastructure. While this would allow the Municipality to meet its immediate infrastructure investment needs, it does not allow for ongoing maintenance, rehabilitation and replacement of its infrastructure, the cost of which amounts to an additional $1.3 million, bringing the Municipality's total infrastructure financing requirement to $2.1 million per year. In comparison, the Municipality budgeted $367,000 in capital expenditures during 2015. Clearly, it is unable to address the full spectre of its infrastructure needs, resulting in ongoing annual infrastructure deficits.

In light of the significant gap between its infrastructure financing requirement and its capacity to raise revenues for capital purposes, the Municipality will be required to prioritize its investments. For the purposes of the asset management plan, three different categories have been identified:

- **Priority 1** – consists of infrastructure investments required within the next five years , investments that qualify for grants and immediate investment needs stemming from new legislation or regulation, public health or safety concerns or other issues
- **Priority 2** – includes infrastructure investments required within six to ten years and other lower priority infrastructure
- **Priority 3** – representing the lowest class of investment priority, this category includes infrastructure with no investment requirement identified within the next ten years, discontinued infrastructure and other lower priority infrastructure

The Municipality's priority project is the reconstruction of McCharles Street, with an estimated cost of $841,000. This includes the replacement of asphalt surface, subgrade, ditching and drainage systems for a length of 400 metres including the rehabilitation of four intersections.

Executive Summary

Financing strategy

While the Municipality is unable to unilaterally address its infrastructure-related financial requirement, it recognizes the need to begin to address the challenge. As part of its financing strategy, the Municipality is proposing the following measures intended to increase funding for capital requirements:

- Permanently protecting the current level of capital expenditures so as to provide a consistent stream of funding into the future;
- Introducing a five year capital levy that would see the total levy increase by 2%, with the new revenue allocated to capital purposes (i.e. not for operations). The capital levy would add approximately $17,000 per year to existing capital funding ($85,000 in total over the next five years), representing a 50% increase in capital spending.
- Exploring the continued use of debt as a means of funding infrastructure requirements, including the adoption of a program whereby a fixed percentage of capital expenditures are financed through debt; and
- Upon the repayment of existing indebtedness, redirecting debt servicing costs to capital expenditures, capital reserves or new debt for capital projects so as to preserve existing funding for capital purposes; and
- Continuing to pursue grant programs provided by senior levels of government.

Executive Summary

About this plan

The Municipality's asset management plan has been developed based on the guidance provided by the Province in *Building Together – Guide for Municipal Asset Management Plans,* which has been tailored to reflect the small size of the Municipality and the nature of its operations and infrastructure. Preparation of the plan involved Municipal staff as well as external financial and engineering advisors paid for through the MIII.

In completing the asset management plan for the Municipality:

- Accepted industry best practices were used for the development of the plan components, including the condition assessments, identification of life cycle requirements and estimated costs;
- The asset management plan was reviewed by Municipal council prior to adoption;
- The asset management plan was compared to the requirements under MIII to ensure compliance; and
- Expressions of interest submitted to date have been based on the priorities identified in the asset management plan.

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

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Chapter I
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 Municipality to move from planning to execution.

The purpose of the asset management

The asset management plan outlines the Municipality's planned approach for the acquisition and maintenance of its infrastructure, which in turn allows the Municipality 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 Municipality'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 Municipality's infrastructure needs, recognizing that the scope of the financial requirement is beyond the capabilities of the Municipality and that some form of prioritization is required; and
- Presents a financial strategy that outlines how the Municipality 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 Infrastructure Investment Initiative) does not represent a formal, multi-year budget for the Municipality. The approval of operating and capital budgets is undertaken as part of the Municipality'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 Municipality's infrastructure.

Scope of the Asset Management Plan

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

Transportation Infrastructure	Water and Wastewater Infrastructure	Other Infrastructure
• Roads • Streetlights	• Treatment facilities • Water distribution system	• Vehicles • Facilities

Please note that the Municipality does not have infrastructure relating to wastewater, storm sewers or bridges.

For the purposes of developing the asset management plan, a 25-year planning horizon was considered, although the analysis includes a discussion of required activities over the entire life cycle of the Municipality's infrastructure. It is expected that the Municipality 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 Municipality's economic or demographic profile (positive or negative), which would impact on the nature and service level of its infrastructure

Methodology

The development of the Municipality's asset management plan involved the following major worksteps.

Workstep
1. Information concerning the Municipality's tangible capital assets was reviewed and summarized to provide a preliminary inventory of assets, acquisition year, remaining useful life and historical cost.
2. A condition assessment of the Municipality'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.
3. Asset management strategies for each component of the Municipality'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.
4. Based on the asset management strategies (which provide an indication as to the cost of the recommended activities) and the condition assessment (which provides an indication as to the timing of the recommended activities), an unencumbered financial projection was developed that outlined the overall cost of recommended asset management strategies assuming that the Municipality was to undertake all of the recommended activities when required (i.e. assuming sufficient funds were available for all required infrastructure maintenance and replacement). Consistent with the provisions of MIII, no grants were considered in the preparation of the unencumbered financial projection.
5. Recognizing that the overall financial requirement associated with the recommended asset management strategies is unaffordable for the Municipality, 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.
6. A second set of financial projections was developed based on the resources available to the Municipality to support its asset management activities, including funding from taxation and user fees. Consistent with the provisions of MIII, no grants were considered in the preparation of the financial projections.

The development of the asset management involved input from the following parties:

- Council and staff of the Municipality
- KPMG LLP, financial advisors to the Municipality

Evaluating and Improving the Asset Management Plan

The asset management plan outlined in this report represents a forecast of the Municipality'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 Municipality and its elected officials and staff, recognizing that the approval of operating and capital budgets is undertaken as part of the Municipality's overall annual budgeting process.

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

Action Item	Frequency
1. Updating of infrastructure priorities based on: • Ongoing condition assessments (e.g. bi-annual bridge inspections) • 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
4. Updating of infrastructure data maintained in Municipal Data Works	Annually upon completion of the Municipality's financial statement audit

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 Township of Nairn and Hyman. KPMG has not and will not perform management functions or make management decisions for the Township of Nairn and Hyman.

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 Township of Nairn and Hyman nor are we an insider or associate of the Township of Nairn and Hyman 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 Township of Nairn and Hyman and are acting objectively.

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Chapter II
State of Local Infrastructure

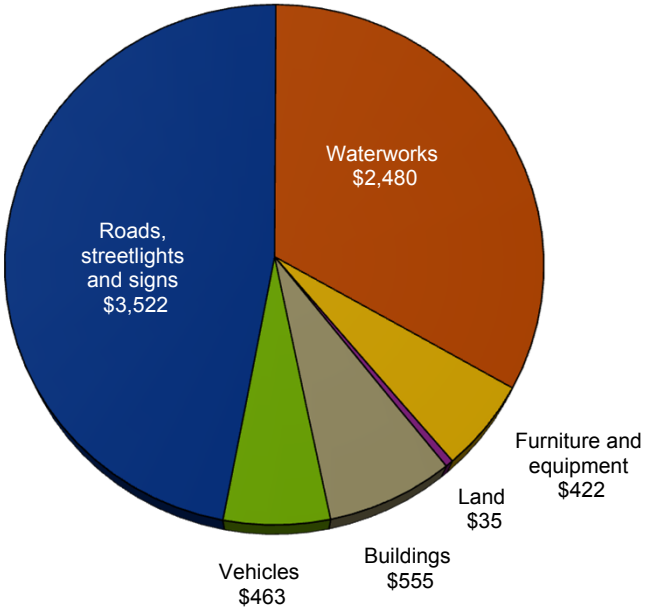
Overview of the Municipality's Infrastructure

At December 31, 2015, the Municipality reported a total investment of $7.5 million in tangible capital assets ('TCA') at historical cost. This equates to an average investment of $31,000 per household, or $15,700 per resident.

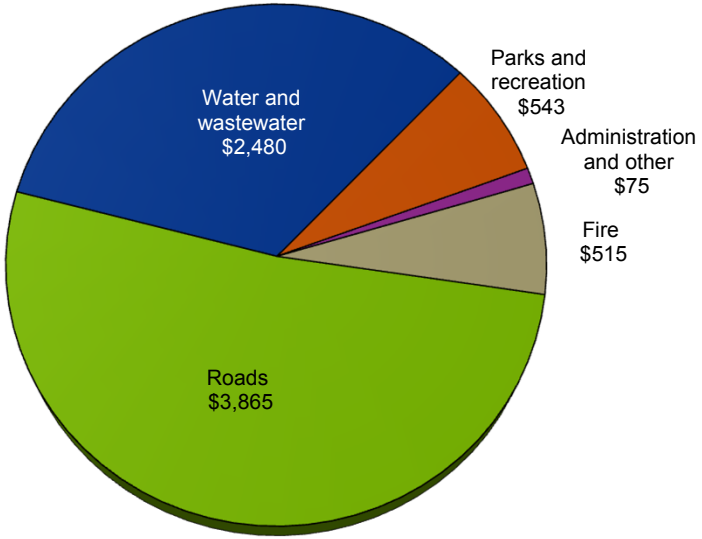
With a historical cost of $3.5 million, the Municipality's road network represent the single largest type of infrastructure and accounts for 46% of the Municipality's total infrastructure (at historical cost). The Municipality's waterworks system, with a total historical cost of $2.5 million, represents the next largest category of infrastructure and amounting to 33% of total infrastructure.

From a functional perspective, the Municipality's road and water networks represent the largest components of its infrastructure ($3.9 million and $2.5 million respectively), accounting for a combined total of 85% of the overall historical cost of the Municipality's infrastructure.

Tangible capital assets by type (historical cost, in thousands)



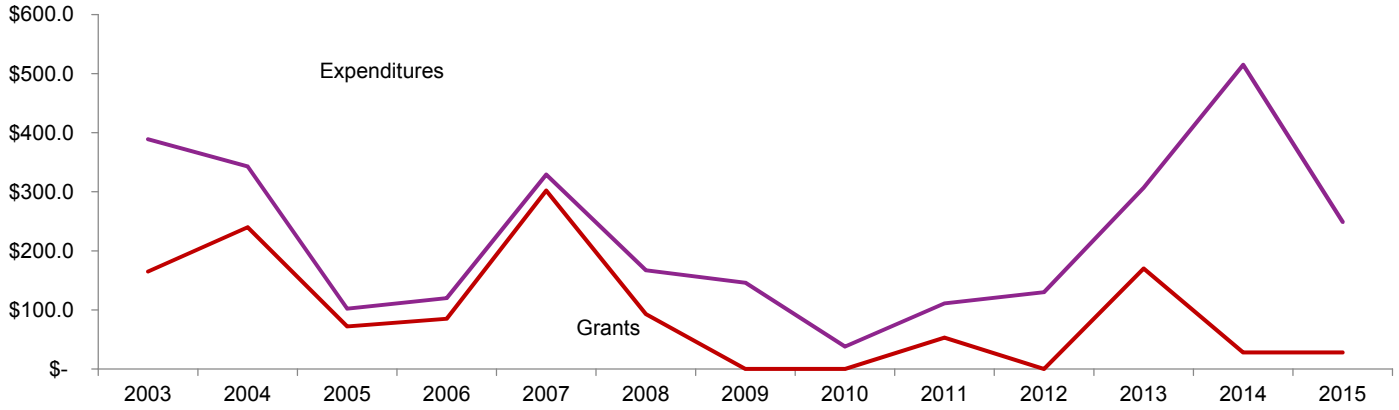
Tangible capital assets by use (historical cost, in thousands)



Overview of the Municipality's Infrastructure

Since 2003, the Municipality's investment in its infrastructure has totaled just under $3 million, with Federal and Provincial capital grants amounting to approximately $1.3 million over the same period. As noted below, the Municipality's investment in infrastructure has traditionally been closely tied to grant revenues.

Capital expenditures and grants (in thousands)



Since 2003, roads infrastructure has represented the largest area of investment for the Municipality, amounting to $1.6 million or 53% of total capital spending. Environmental services and parks and recreation infrastructure comprised the next largest component of capital expenditures, amounting to $557,000 and 542,000 since 2003, respectively.

Capital expenditures by program

(in thousands of dollars)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Transportation	194	31	40	62	94	116	146	23	95	84	225	296	153	1,559
Environmental services	136	54	21	9	0	3	–	–	–	–	82	166	86	557
Parks and recreation	46	224	14	7	214	11	–	–	4	22	–	–	–	542
Fire	–	34	17	36	12	37	–	15	7	24	–	39	10	231
Administration and other	13	–	10	6	9	–	–	–	5	–	–	14	–	57
Total	389	343	102	120	329	167	146	38	111	130	307	515	249	2,946

Overview of the Municipality's Infrastructure

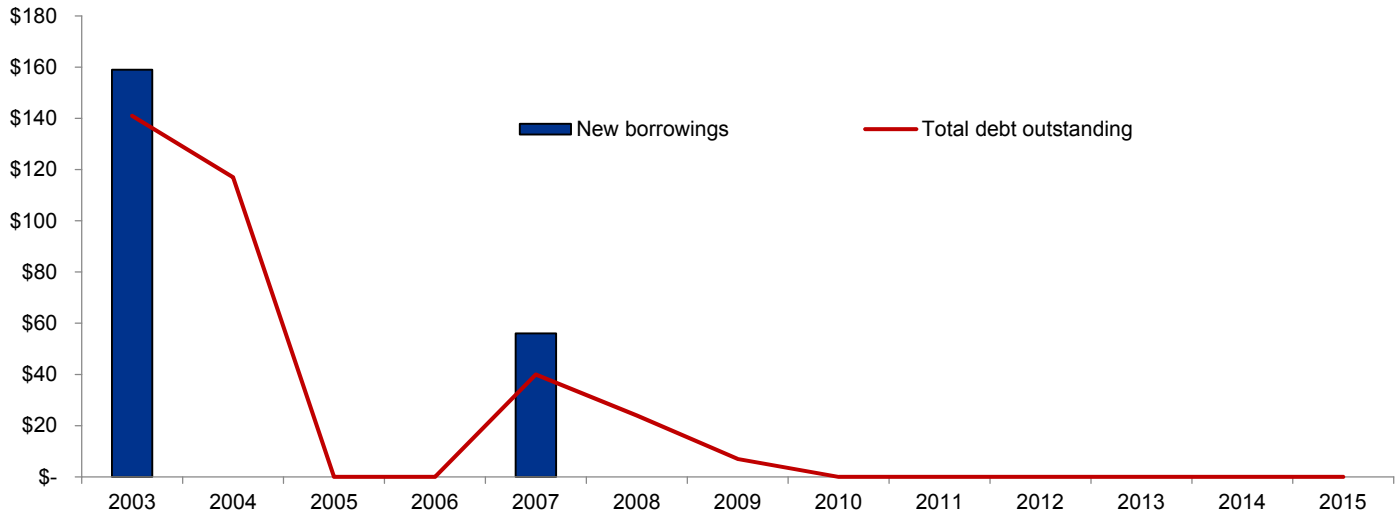
In order to fund its capital investments, the Municipality has relied on a combination of grants, long-term debt, contributions from reserves and reserve funds and taxation and user fee revenues, with grants funding 42% of capital expenditures and long-term debt funding 7% of capital expenditures since 2003.

Capital expenditures and funding

(in thousands of dollars)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Total capital expenditures	389	343	102	120	329	167	146	38	111	130	307	515	249	2,946
Grants received	165	240	72	85	302	93	–	–	53	–	170	28	28	1,236
Local financing requirement	224	103	30	35	27	74	146	38	58	130	137	487	221	1,710
Long-term debt issued	159	–	–	–	56	–	–	–	–	–	–	–	–	215
Taxation, user fee and reserve funding	65	103	30	35	(29)	74	146	38	58	130	137	487	221	1,495

As at December 31, 2015, the Municipality was debt free, having repaid the last of its long-term debt in 2010.

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



Historical, Replacement and Life Cycle Cost

For asset management purposes, the historical cost of the Municipality'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 Municipality to replace the infrastructure at the present time. While the use of replacement value is a more meaningful measure of the financial requirement associated with the Municipality's infrastructure (and is a required component for asset management plans under MIII), it is also of limited value in that it only considers the replacement cost at the end of the infrastructure's useful life and does not contemplate:

- The fact that certain components of the Municipality's infrastructure, such as roads, will not be fully replaced at the end of useful life but rather will be reconstructed; and
- Asset management activities that are required (by best practice) to be incurred prior to the end of the useful life of the Municipality's infrastructure.

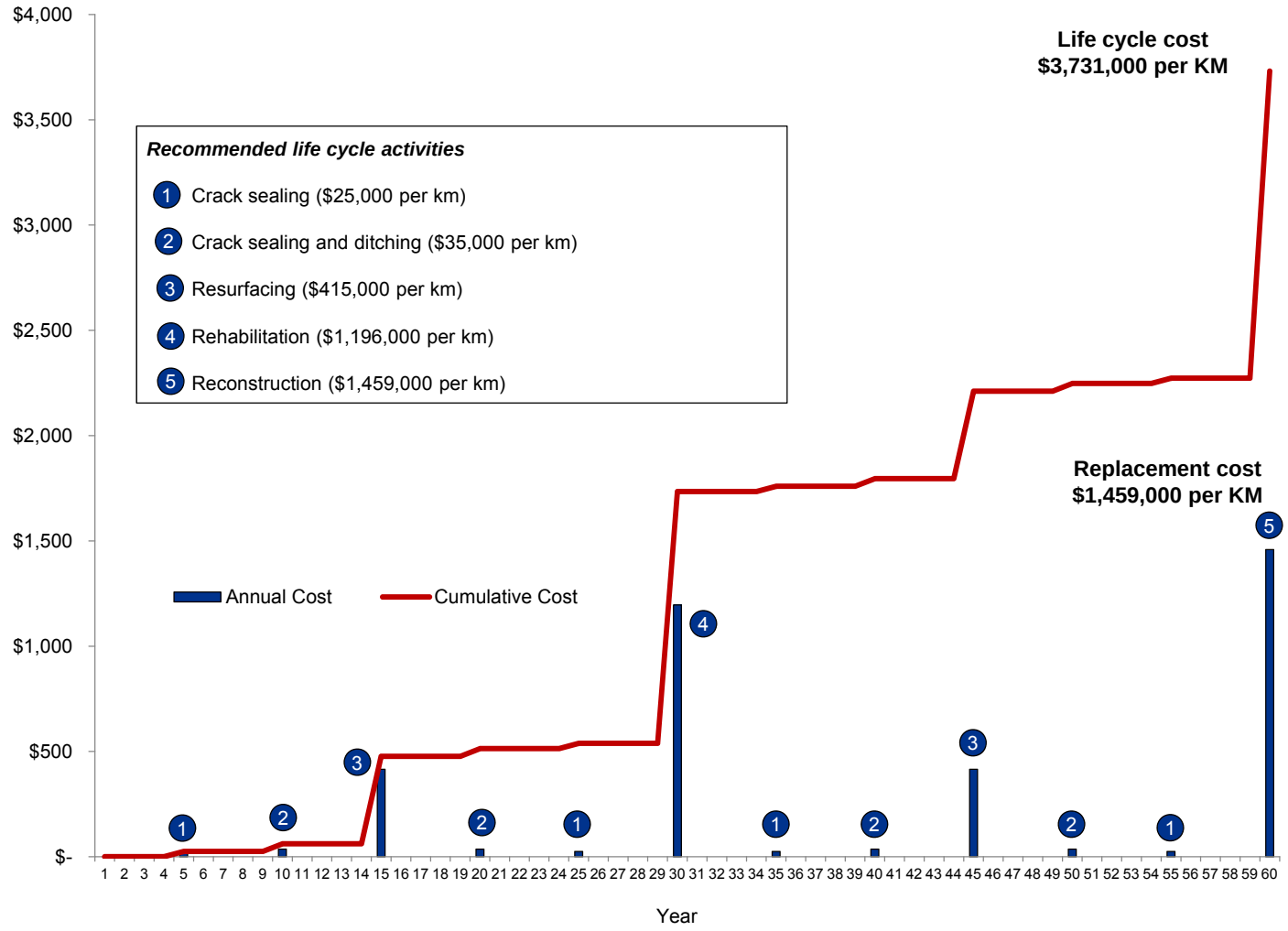
Accordingly, for the purposes of the Municipality's asset management plan, we have provided the following for each component of the Municipality's infrastructure:

- **Historical cost**, based on the Municipality's TCA data as reported in its 2012 financial information return
- **Replacement cost**, based on cost estimates prepared by the Municipality's engineering advisors. 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)
  - Water pipes – replacement costs at the end of useful life, including hydrants, valves, road reinstatement and service to the property line
  - Vehicles – estimated purchase price
  - Buildings – estimated reconstruction cost
- **Life cycle costs**, based on cost estimates prepared by the Municipality's engineering advisors. Life cycle costs encompass the cost of all recommended maintenance activities associated with a component of the Municipality's infrastructure prior to the end of useful life. The nature of life cycle costs will vary depending on the type of infrastructure in question, with certain assets requiring little life cycle activities prior to the end of useful life while others require regularly scheduled maintenance activities. For the purpose of the Municipality's asset management plan, life cycle costs have been provided for linear infrastructure (roads, water and wastewater mains).

  We have included on the following page a depiction of the life cycle requirements associated with one type of road, including the difference between replacement cost and life cycle cost.

Historical, Replacement and Life Cycle Cost

Life cycle costing profile – paved rural collector road (7.0m lane)



Historical, Replacement and Life Cycle Cost

Additional information concerning the Municipality's infrastructure can be found in the following appendices:

- **Appendix A** – Infrastructure profile – roads
- **Appendix B** – Infrastructure profile – water
- **Appendix C** – Infrastructure profile – buildings and facilities
- **Appendix D** – Infrastructure profile – vehicles

The current replacement value of the Municipality's infrastructure (expressed in 2016 funds) is estimated to be in the order of $41.2 million, almost 80% of which ($32.0 million) relates to the municipal road network. Overall, the replacement value of the Municipality's infrastructure amounts to approximately $92,000 per resident or $172,000 per household, or 6 times the historical cost of infrastructure.

The total life cycle cost associated with the Municipality's linear infrastructure (roads and water mains) is just over $81 million, with roads representing the largest category of life cycle costs ($76 million or 93% of total life cycle costs). On average, the Municipality's life cycle costs for its linear infrastructure is $169,000 per resident or $316,000 per household.

Historical, replacement and life cycle costs by component

	Quantity	Useful Life	Historical Cost	Replacement Cost	Life Cycle Cost
Roads	29,850 m	60 to 75 years	$3,522,047	$32,034,136	$75,691,562
Water distribution network	6,604 m	80 years	$2,480,399	$3,920,038	$5,385,548
Total linear infrastructure			$6,002,446	$35,954,174	$81,077,110
Buildings and facilities	8	20 to 75 years	$554,655	$3,658,956	
Vehicles	7	9 to 20 years	$463,052	$1,585,000	
Total in-scope infrastructure			$7,020,153	$41,198,130	
Furniture and equipment			$422,370		
Land			$34,782		
Total tangible capital assets per financial statements			$7,477,305		

Landfill

The Environmental Protection Act sets out the regulatory requirements to properly close and maintain all active and inactive landfill sites. Under environmental law, there is a requirement for closure and post-closure care of solid waste landfill sites. Landfill closure and post-closure care requirements have been defined in accordance with industry standards and include final covering and landscaping of the landfill, pumping of ground water and leachates from the site, and ongoing environmental monitoring, site inspection and maintenance.

The Municipality's estimated cost for closure and post-closure activities, discounted to 2015, is estimated to be in the range of $150,000 to $200,000. Ultimately, the City's approach to meeting its future solid waste management needs, and the associated capital costs, will be determined upon the updating of its waste management master plan, which is scheduled to occur in 2021. Based on discussions with City personnel, we understand that a range of options may be available for future waste management strategies, including:

- *Developing a new landfills to replace the Municipality's existing site.* We understand this option would likely require a capital investment of $10 million but may not be viable given regulatory approval requirements and the fact that the Province of Ontario has not approved the construction of new municipal landfills in a number of years;
- *Exporting solid waste to a third party landfill*; and
- *Adopting a waste to energy strategy* whereby solid waste is either (i) incinerated; or (ii) used to produce a combustible material for use in energy generation.

For the purposes of the asset management strategy we have not considered any costs relating to the Municipality's landfill as:

1. The Municipality's landfill has an estimated remaining life of 15 years, which extends beyond the projection period for the asset management plan; and
2. The ultimate strategy to replacing the Municipality's landfill is yet to be determined.

Condition Assessment

In order to assess the condition of the Municipality'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 Municipality's road network on a scale of 0.00 to 10.00 based on factors such as structural cracking, non-structural cracking, rutting and roughness.
- **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 were based on a *Facility Condition Index* that considered the level of required repairs to the various facility components (structure, mechanical, electrical and roof) as a percentage of its total replacement cost, based on a physical inspection of the Municipality's buildings and the estimated remaining useful life.
- **Vehicles** – condition assessments for the Municipality's fleet were determined based on the estimated remaining useful life of the individual vehicles.

In order to determine the allocation of the Municipality'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	Greater than 6.00	4.00 to 6.00	Less than 4.00
Water and wastewater mains	Remaining useful life	Greater than 50%	10% to 50%	Less than 10%
Facilities	Facility condition index	Less than 5%	5% to 10%	More than 10%
Vehicles	Remaining useful life	Greater than 50%	10% to 50%	Less than 10%

Condition Assessment

Details of the condition assessments for individual infrastructure components can be found in the infrastructure profiles in **Appendices A to D**.

The results of the condition assessment indicate that the Municipality's linear assets are in relatively good condition, with no portion of its road or watermains classified as poor. However, a significant portion of the Municipality's road network is classified as fair and as the network deteriorates as a result of traffic volumes, weather and other factors, the percentage classified as poor will increase, indicating an impending capital reinvestment requirement.

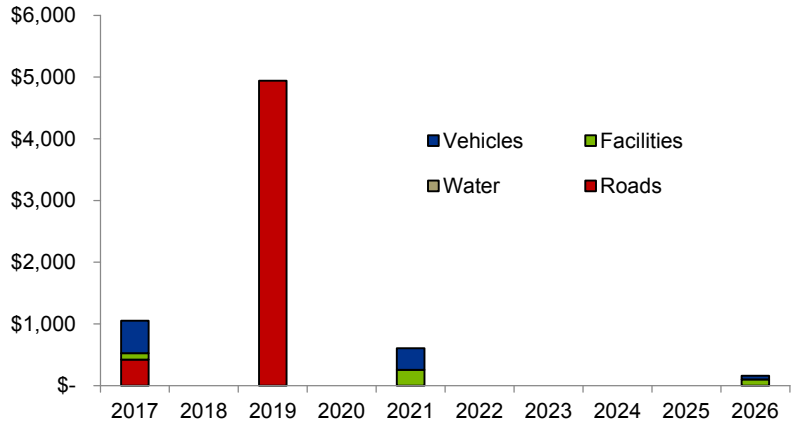
In addition, the Municipality's buildings and vehicles are heavily weighted towards the poor or fair categories, increasing the amount of required capital investment.

Condition assessment results by infrastructure component

Infrastructure	Condition Assessment		
	Good	Fair	Poor
Roads	25%	72%	3%
Water mains	100%	–	–
Buildings	50%	25%	25%
Vehicles	44%	23%	33%

As a result of the high proportion of the Municipality's infrastructure ranked as poor or fair, it faces an immediate infrastructure investment requirement of approximately $1.1 million, with an additional $5.7 million of capital investment requirements identified over the next ten years. Every category of infrastructure excluding water has immediate investment requirements, with the largest investment requirements associated with roads ($421,000 immediately, with an additional $4.9 million over the next ten years.

Projected future infrastructure investment requirements (in thousands)



Data Verification and Condition Assessment Policies

On a go-forward basis, the following policies will govern the updating and verification of the condition assessment:

- Condition assessments for bridges will be conducted every two years in accordance with Provincial regulations, with the asset management plan updated accordingly
- Condition assessments for water and wastewater mains will be assessed every five years through the use of camera inspections
- Condition assessments for facilities will be assess through an engineering/architectural inspection of the facilities every five years
- Condition assessments for other assets will be based on the percentage of remaining useful life in the absence of a third-party assessment of the assets. On an annual basis, the Town will review the useful lives and condition assessment criteria (good, fair, poor based on percentage of remaining life) and will adjust the asset management plan accordingly

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Chapter III
Desired Levels of Service

Performance Measures

The Municipality'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 the key performance measures and service level targets for the major components of the Municipality's infrastructure, as well as an assessment of its current performance and the anticipated date for achieving the service level target.

Infrastructure Component	Performance Measure	Targeted Performance	Current Performance	Achievement Date
Roads	Compliance with Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways	Full compliance	Full compliance	2014
Water	Days under boil water advisory	None	None	2014
	Response time for notices submitted in accordance with subsection 18(1) of SDWA	5 days	5 days	2014
	Number of water main breaks per km	0.2	0	2014
Vehicles	Operability	90%	+90%	2014
Facilities	Availability (percentage of planned operating hours)	99%	+99%	2014
	Compliance with Accessibility for Ontarians with Disability Act and Integrated Accessibility Standards	Full compliance	In progress	As per legislation

It is anticipated that the Municipality will monitor and report on its performance annually.

It is also important to recognize that in certain instances, a deviation from the Municipality's targeted service level may be the result of uncontrollable and unforeseen factors and any evaluation of the Municipality's performance should differentiate between controllable and uncontrollable events. For example, the availability of facilities (as a percentage of planned operating hours) could be impacted by weather conditions or power disruptions that may result in the closure of facilities but which are not caused by the Municipality or otherwise controllable. Absent some form of compensating strategy (such as standby power generators), these events may cause the Municipality to deviate from its targeted service levels.

The Impact of New Legislation and Regulation

From time to time, new legislation or regulations will be enacted that change minimum performance requirements for municipal infrastructure and by extension the performance measures outlined in the Municipality's asset management plan. At the present time, three major items of legislation and regulation have been identified as having the potential to impact on the Municipality's desired service levels and asset management plan:

- The *Accessibility for Ontarians with Disability Act* and the accompanying *Integration Accessibility Standards* may require the Municipality to alter components of its infrastructure to ensure accessibility for individuals with disabilities. The timeframe for compliance with the Act depends on both the nature of the requirement and the size of the municipality, with smaller communities generally provided with an extended period for compliance as compared to the Province or larger municipalities.
- The Province of Ontario has recently enacted revisions to *Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways*. While the majority of these changes deal with winter maintenance activities (which are not included in the scope of the asset management plan), revisions have been made to inspection requirements for certain components of a municipal road network, which will impact on the Municipality's asset management activities in the future.
- It is anticipated that the Province of Ontario will introduce new legislation relating to wastewater treatment activities that are expected to increase the minimum performance standards, which may in turn require the Municipality to amend its existing performance measurement targets and/or introduce new targets.

On an annual basis, the Municipality will evaluate the impact of enacted legislation or regulation on its desired levels of service and will adjust its performance measures accordingly.

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

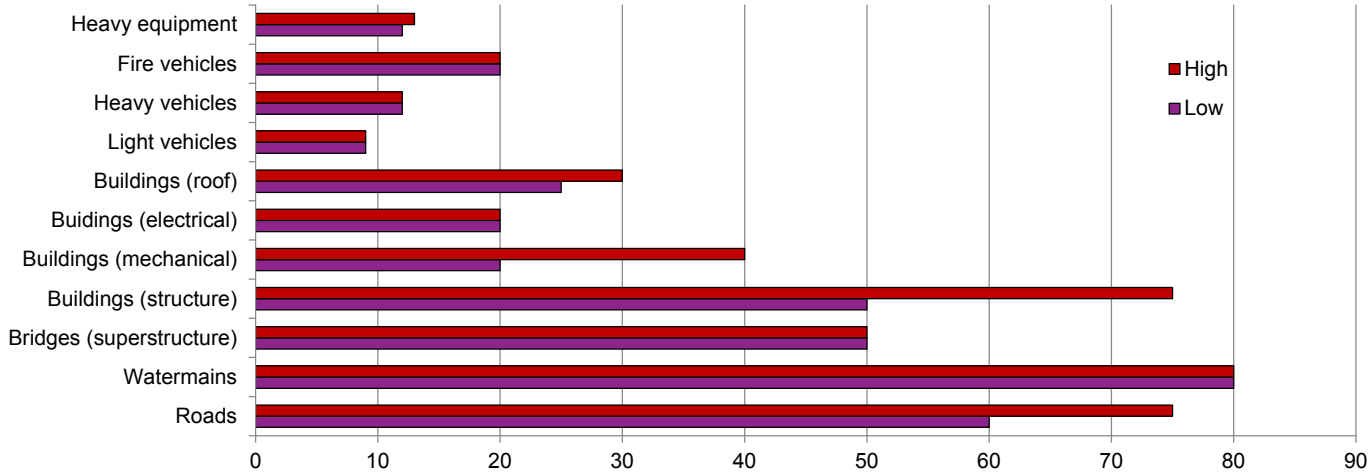
Chapter IV
Asset Management Strategy

Overview

For each significant component of the Municipality's infrastructure, asset management strategies have been developed that outline:

1. The expected life cycle period for each asset, which defines the period that the Municipality 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 Municipality'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). The integration of different infrastructure components is a critical element of the Municipality'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.

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, natural gas, and cable. Other possible affected elements include traffic signals, street lighting, and sidewalks.
Rehabilitation and replacement criteria	To assess paved roads the Pavement Condition Index (PCI) is used. PCI is a numerical index between 0 and 10 and is based on a visual survey conducted, where 10 represents a new pavement in excellent condition and 0 an impassible pavement. If the PCI ranks at 5, resurfacing should be considered, if PCI ranges from 3 to 5, rehabilitation should be considered. In the case that the PCI falls below 3, 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 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 PCI. Pavement PCI's below 5 result in exponential increases in pavement rehabilitation costs. It also increases significantly road maintenance costs. Pavements identified by a PCI below 3 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 natural gas, hydro, and telephone utilities externally.

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, natural gas, and cable.
Rehabilitation and replacement criteria	To assess gravel roads the Gravel Condition Index (GCI) is used. GCI is a numerical index between 0 and 100 and is based on a visual survey conducted, where 100 represents a newly constructed road in excellent condition and 0 an impassible roadway. If the GCI ranges from 3 to 5, rehabilitation should be considered. In the case that the GCI falls below 3, 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 GCI index which as a result will typically fall below 6. The poor quality of the roadway will be reflected in rising reconstruction and maintenance costs. Roads which are identified by a GCI of 3 or lower 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.

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, natural gas, 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 expect service life of 100 years will require replacement earlier than expected, 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, cable and gas.

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	To assess facilities the Facility Condition Index (FCI) is used. FCI is a ratio of total deferred maintenance, costs/ current replacement value of the facility. The index can be used to assess either individual assets or grouped assets. The FCI is currently accepted throughout North America.
Rehabilitation and replacement strategies	The replacement schedule will be dictated by the actual asset conditions at the time, the stage in its life cycle, and the FCI asset condition summaries. Replacement may also be undertaken to meet any changes in safety, industry or technological specifications and standards. The facility must also be maintained to meet the requirements of the Accessibility for Ontarians with Disabilities Act (AODA) and upgrade ingress/egress points as necessary. Critical components which should be given special attention with annual inspections include 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.

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 8-10 years, 10 years for duty trucks, 12 years for ice resurfaces, 10-15 years for front loaders, backhoes and tractors, 20 years for graders, 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.

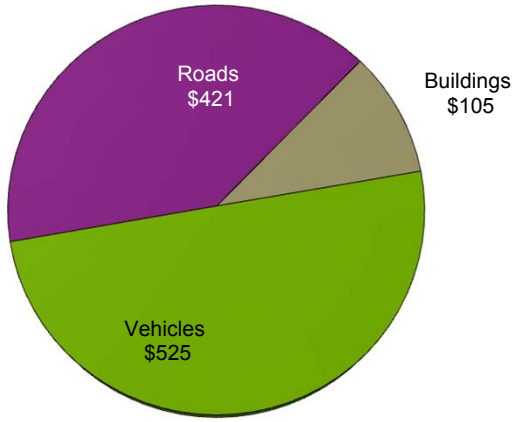
Financial Requirements

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

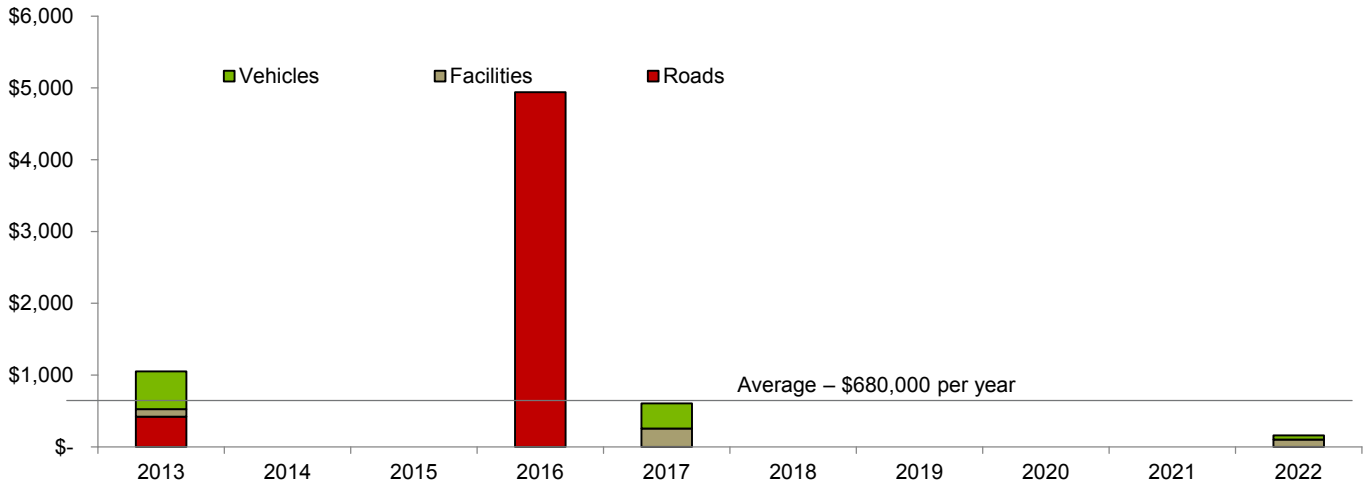
- **Immediate infrastructure investment needs.** Based on the results of the condition assessment, an indication as to the types of asset management activities required over the next ten years, and their associated costs, has been developed. Overall, it is estimated that the Municipality would need to invest $6.8 million in its infrastructure, the majority of which ($5.3 million or 83%) relates to the municipal road network. With the exception of watermains, all infrastructure components have relatively large financial requirements over the next ten years.

  On average, the Municipality's immediate infrastructure investment needs amount to approximately $680,000 per year, recognizing that approximately $1.2 million of the Municipality's investment requirement should be incurred immediately.

Immediate infrastructure needs (in thousands)



Projected future infrastructure investment requirements by year (in millions)



Financial Requirements

- **Sustainable life cycle requirements.** In addition to its immediate needs, the Municipality 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 Municipality has traditionally relied on grants to fund a major portion of its infrastructure, its historical levels of capital investment have fluctuated significantly. However, if the Municipality 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 either:
  - The total life cycle cost of the asset divided by its useful life. This approach is appropriate for linear assets that have significant life cycle requirements throughout their useful life.
  - The total replacement cost of the asset divided by its useful life, which is appropriate for assets with fewer life cycle requirements and where straight replacement of the asset is the more likely scenario.

  Based on this approach, we have calculated the average annual contribution required to ensure a sustainable stream of funding for the Municipality's assets to be in the order of $1.4 million.

Estimated sustainable life cycle requirement

Asset Component	Basis of Determination	Total Costs Over Useful Life	Estimated Useful Life	Annual Requirement
Roads	Life cycle	$75,691,562	60 years	$1,261,526
Water distribution network	Life cycle	$5,385,548	75 years	$71,807
Buildings and facilities	Replacement	$554,655	50 years	$11,093
Vehicles and equipment	Replacement	$463,052	20 years	$23,153
Total		$82,094,817		$1,367,579

Prioritizing Infrastructure Requirements

The overall infrastructure financing requirement for the Municipality, assuming that all life cycle activities are undertaken at the recommended intervals and that the Municipality funds overall life cycle and replacement costs evenly over the assets lives, is calculated to be in the order of $2.1 million, as follows:

- Immediate infrastructure investment needs $690,000
- Sustainable life cycle requirements $1,367,000

In comparison, the Municipality's 2015 budget supported $367,000 in capital expenditure. Given the magnitude of the estimated infrastructure financing requirement, it is evident that ***the Municipality is unable to fully meet its ongoing infrastructure requirements without significant levels of support from senior levels of government*** on an ongoing (i.e. annual) basis. As such, the Municipality will be required to prioritize its capital investments and the application of its available funds.

For asset management purposes, the investment requirements associated with the Municipality's infrastructure are divided into three main categories, as follows:

Category	Description
Priority 1	• Assets with an investment requirement within the next five years, based on condition or useful life • Co-located assets that may not require investment within the next five years but should be replaced as part of the integrated project. For example, sewer and water pipes underneath a road may not be at the end of their useful life but could be replaced as part of a road reconstruction project if they are approaching the end of their useful life before the next road reconstruction. • Assets that may qualify for specific grants, even if an immediate investment requirement has not been identified within the next five years • Infrastructure investments required as a result of changing legislation, public health or safety concerns or strategic purposes (e.g. economic development)
Priority 2	• Assets with an investment requirement within the next six to ten years • Assets that would otherwise be classed as Priority 1 but are considered to have reduced importance due to low utilization by the community (e.g. roads with low traffic volumes), compensating strategies in the event of failure (e.g. detours, reduced speed limits or load limits or limited impacts on public health or safety in the event of a failure
Priority 3	• Assets with no investment requirements identified within the next ten years • Assets to be discontinued or abandoned • Assets that would otherwise be classified as Priority 1 or 2 but are considered to have reduced importance

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

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Chapter V
Financing Strategy

Basis of Analysis

The development of the Municipality's financing strategy for its asset management plan reflects the guidance outlined by the Province of Ontario in *Building Together – Guide for Municipal Asset Management Plans*. Specifically, the development of the financing strategy (and in particular the extent of the Municipality's financing shortfall) is based on the following parameters:

- Presents annual revenues and expenditures for the planning period (25 years), as well as comparative information;
- Does not consider grants from senior governments to be a confirmed source of revenue unless an agreement has been executed. Accordingly, only Federal Gas Tax and the Municipality's allocation for capacity funding under the Municipal Infrastructure Investment Initiative have been included in the projections; and
- Identifies the potential funding shortfall and how it will be managed.

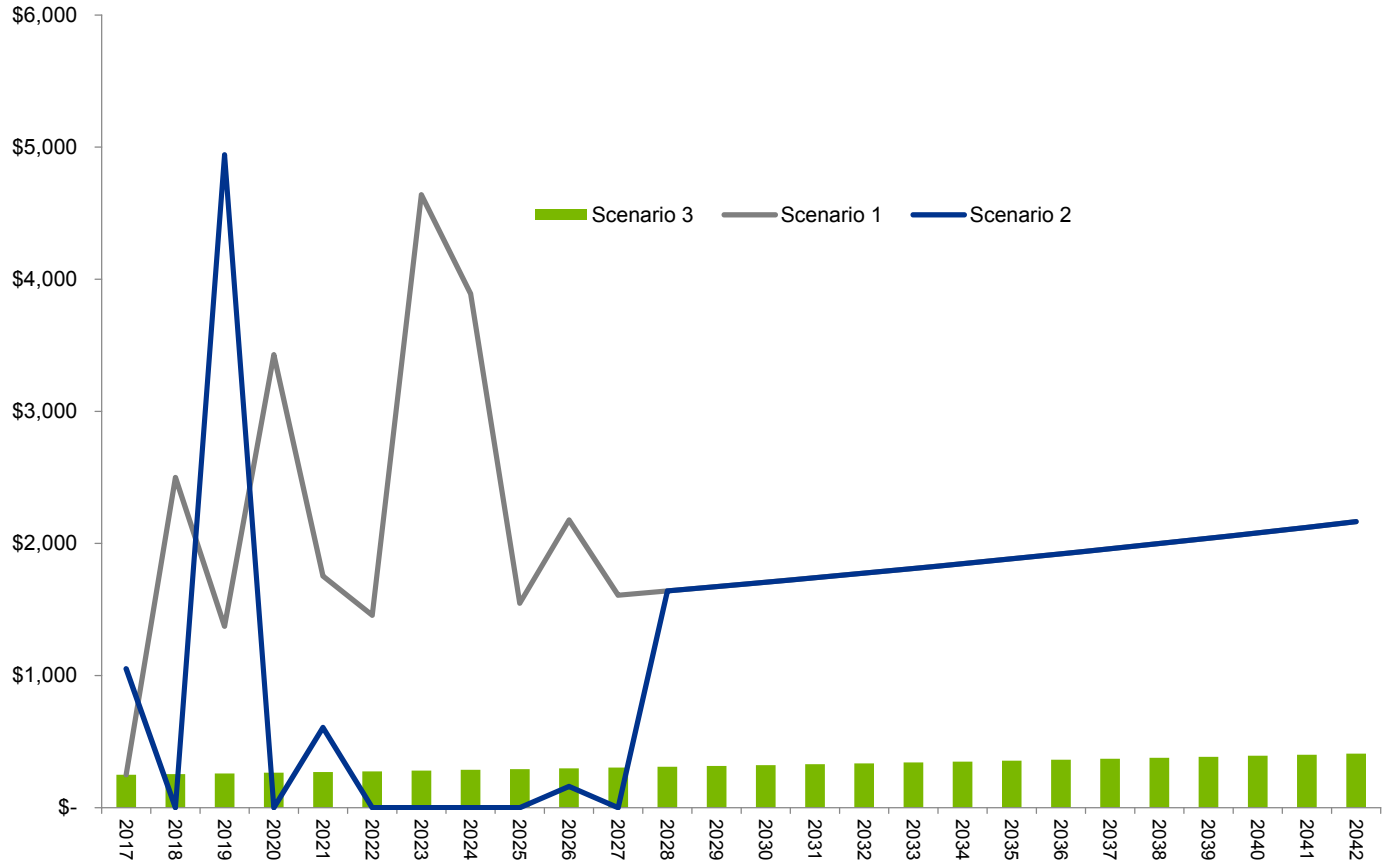
In developing the financial strategy, three alternative scenarios were considered:

- **Scenario 1** – Representing the base case scenario, this scenario reflects the assumption that all identified asset management requirements of $2.1 million (immediate and long-term contributions) will be incurred by the Municipality. This represents the worst case scenario as it involves the highest level of capital financing requirement and ultimately is not practical due to the increase in municipal revenues necessary to support the required level of capital investment.
- **Scenario 2 –** Under this scenario, the Municipality's capital expenditures are projected to be as follows:
  - During the first 10 years of the projection period, the Municipality will make capital investments based on the identified priority infrastructure investment requirements (i.e. $690,000 per year).
  - During the remainder of the projection period, the Municipality will make capital investments equal to the amount of the sustainable life cycle contribution requirements (i.e. $1,367,000 million per year).
- **Scenario 3 –** Under this scenario, it is assumed that the Municipality will continue to make capital investments based on the amount of funding budgeted in 2015 for capital expenditures of $367,000.

Projected Financial Performance

Financial projections developed in support of the asset management plan demonstrate both the magnitude and immediacy of the Municipality's identified capital requirements, with the required level of capital expenditures under Scenarios 1 and 2 significantly higher than the current level. At the same time, the average residential taxes per household is expected to increase accordingly if taxpayers are solely responsible for funding the capital requirements.

Projected capital expenditures (in thousands)



Financing Strategies

In order to address the current and future shortfalls in capital funding, the Municipality has identified the following potential courses of action:

1. **Five year capital levy**. In order to address the immediate and short-term infrastructure requirements, the Municipality is contemplating the introduction of a five year capital levy that would see the total municipal levy increase by 2% per year in order to fund capital expenditures. The proceeds from this capital levy would either be expended during the year, used to finance debt servicing costs for infrastructure related borrowings or placed in a reserve fund until such time as the funds are required (the Municipality adopts a similar approach for Federal Gas Tax, which is sometimes 'banked' until sufficient funds are accumulated to finance capital projects). The introduction of a five year capital levy is expected to provide an additional $86,000 for capital purposes, representing a 35% increase in capital expenditures over the next five years.

2. **Use of borrowing for infrastructure investments**. Historically, the Municipality has relied on borrowings as a means of funding infrastructure investments, with the Municipality currently having outstanding long-term debt in respect of fire vehicles, water infrastructure and its solar generating projects. On an ongoing basis, the Municipality may wish to consider the use of debt for additional infrastructure investments, conditional upon the following:

   - The infrastructure investment will provide a stream of non-taxation revenues that can be used to fund some or all of the associated debt servicing costs; and/or
   - The Municipality requires debt financing to fund its portion of infrastructure projects that are cost shared with senior government; and/or
   - The infrastructure investment is unavoidable as a result of regulatory changes or concerns over public health and safety and cannot be funded through other means; and
   - The associated debt servicing costs would not jeopardize the Municipality's financial sustainability or result in the Municipality exceeding its annual debt repayment limit.

   The use of debt financing is particularly helpful in addressing immediate capital investment requirements as it allows the Municipality to spread the cost of projects over the term of the loan. For example, the amount of capital expenditures that could potentially be financed through the Municipality's proposed capital levy could amount to as much as $1.3 million, recognizing that future capital expenditures would be limited as the financing is directed towards debt servicing, not infrastructure investments. Alternatively, the Municipality may wish to adopt a phased approach to debt financing, whereby a fixed percentage of capital expenditures would be financed through debentures during the capital levy period.

   In addition to the issuance of new debt, the Municipality can also redirect funds used to service existing debt towards capital expenditures once the debt is repaid (recognizing that the Municipality is currently debt free). By reinvesting these funds in capital or using them to pay for new infrastructure loans (as opposed to reducing the municipal levy upon the repayment of the existing loans), the Municipality can further increase its funding for capital purposes.

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Appendix A
Infrastructure Profile
Roads

Municipality Of Nairn & Hyman
Asset Management Plan
ROAD MANAGEMENT PLAN 2013 - 2022

ROAD	Road Description/Name From	Road Description/Name To	Township	Length (km)	Surface Type	Road Type	Replacement Cost per KM	Total Replacement Cost	Lifecycle Cost per KM	Total Lifecycle Cost
Front St Laneway	McDonald	Lot 12 (m-36)	Narin Center	0.3	GR	Gravel rural	$ 926,089	$ 277,827	$ 2,092,862	$ 627,859
Spencer Lane South	Hwy 17	Lot 5	Narin Center	0.3	GR	Gravel rural	$ 926,089	$ 277,827	$ 2,092,862	$ 627,859
McCharles	Spenceer Lane S	Smith Street	Narin Center	0.4	GR	Gravel rural	$ 926,089	$ 370,436	$ 2,092,862	$ 837,145
Edwards St	McCharles St	end	Narin Center	0.1	GR	Gravel rural	$ 926,089	$ 92,609	$ 2,092,862	$ 209,286
Gay Lane	Mcintyre St	Minto	Narin Center	0.1	GR	Gravel rural	$ 926,089	$ 92,609	$ 2,092,862	$ 209,286
Chown St	Minto	Pt 1 SR056 Lot 11	Narin Center	0.2	GR	Gravel rural	$ 926,089	$ 185,218	$ 2,092,862	$ 418,572
Spencer Lane North	Hwy 17	Front St	Narin Center	0.2	GR	Gravel rural	$ 926,089	$ 185,218	$ 2,092,862	$ 418,572
Sand Bay Road	Con 6 Lot 10	Spanish River	Hyman Twsp	0.3	GR	Gravel rural	$ 926,089	$ 277,827	$ 2,092,862	$ 627,859
Smith Lane	McCharles St	Lot 36	Narin Center	0.3	GR	Gravel rural	$ 926,089	$ 277,827	$ 2,092,862	$ 627,859
Sand Bay Road	Con 2 Lot 11	Hydro Powerlines Con 2-3 Lot 11	Hyman Twsp	0.5	GR	Gravel rural	$ 926,089	$ 463,045	$ 2,092,862	$ 1,046,431
Pine Road	Sandy Bay Road	end	Hyman Twsp	0.7	GR	Gravel rural	$ 926,089	$ 648,263	$ 2,092,862	$ 1,465,003
Baker Drive	Sandy Bay Road	end	Hyman Twsp	0.7	GR	Gravel rural	$ 926,089	$ 648,263	$ 2,092,862	$ 1,465,003
Belle Bay Crescent	Sandy Bay Road	Baker Drive	Hyman Twsp	0.7	GR	Gravel rural	$ 926,089	$ 648,263	$ 2,092,862	$ 1,465,003
Coal Dock Road	Sandy Bay Road	end	Hyman Twsp	0.7	GR	Gravel rural	$ 926,089	$ 648,263	$ 2,092,862	$ 1,465,003
Headquarters Hill Road	Sandy Bay Road	the bridge	Hyman Twsp	0.7	GR	Gravel rural	$ 926,089	$ 648,263	$ 2,092,862	$ 1,465,003
Nairn Falls Road	Ferry Street	Nairn Falls Beach	Nairn Center	0.7	GR	Gravel rural	$ 926,089	$ 648,263	$ 2,092,862	$ 1,465,003
Birch St	Hwy 17	Pcl 12341 Con 2-3 Lot 10	Hyman Twsp	0.8	GR	Gravel rural	$ 926,089	$ 740,872	$ 2,092,862	$ 1,674,289
Sand Bay Road	Hydro Powerlines Con 2-3 Lot 11	Con 4 Lot 2	Hyman Twsp	1.7	GR	Gravel rural	$ 926,089	$ 1,574,352	$ 2,092,862	$ 3,557,865
Old Nairn Road(Old Hwy 1	Hwy 17	Day St-Minto Intersection	Narin Center	2	GR	Gravel rural	$ 926,089	$ 1,852,179	$ 2,092,862	$ 4,185,724
Sand Bay Road	Con 4 Lot 2	Con 5 Lot 5	Hyman Twsp	5.9	GR	Gravel rural	$ 926,089	$ 5,463,928	$ 2,092,862	$ 12,347,884
Edwards St South	McCharles St	Lot 9-18	Narin Center	0.3	HCB	Paved rural	$ 1,594,314	$ 478,294	$ 4,077,358	$ 1,223,207
McIntyre St	Minto St	Smith St	Nairn Center	0.15	HCB	Paved rural	$ 1,594,314	$ 239,147	$ 4,077,358	$ 611,604
Day St	Minto St	EB Eddy Plant Entrance	Narin Center	0.6	HCB	Paved rural	$ 1,594,314	$ 956,588	$ 4,077,358	$ 2,446,415
Short Street	Sandy Bay Road	end	Hyman Twsp	0.7	HCB	Paved rural	$ 1,594,314	$ 1,116,020	$ 4,077,358	$ 2,854,150
McDonald St	Front st	Hwy 17	Narin Center	0.8	HCB	Paved rural	$ 1,594,314	$ 1,275,451	$ 4,077,358	$ 3,261,886
Minto St	Day St	Mcintyre St	Narin Center	0.9	HCB	Paved rural	$ 1,594,314	$ 1,434,882	$ 4,077,358	$ 3,669,622
Sand Bay Road	Hwy 17	Con 2 Lot 11	Hyman Twsp	1.2	HCB	Paved rural	$ 1,594,314	$ 1,913,177	$ 4,077,358	$ 4,892,829
Smith St South	Hwy 17	McCharles St	Narin Center	0.3	LCB	Surface treated rural	$ 1,088,510	$ 326,553	$ 2,598,144	$ 779,443
Spanish Lane	McDonald St	end	Narin Center	0.05	LCB	Surface treated rural	$ 1,088,510	$ 54,426	$ 2,598,144	$ 129,907
Nelson St	Front St	Hwy 17 (dead end)	Narin Center	0.15	LCB	Surface treated rural	$ 1,088,510	$ 163,277	$ 2,598,144	$ 389,722
Hall St	Front st	Hwy 17	Narin Center	0.2	LCB	Surface treated rural	$ 1,088,510	$ 217,702	$ 2,598,144	$ 519,629
Stanley St	Front St	Hwy 17 (dead end)	Narin Center	0.2	LCB	Surface treated rural	$ 1,088,510	$ 217,702	$ 2,598,144	$ 519,629
Taylor St North	Front St	Hwy 17	Narin Center	0.2	LCB	Surface treated rural	$ 1,088,510	$ 217,702	$ 2,598,144	$ 519,629
Taylor St South	McCharles St	Lot 27-36	Narin Center	0.3	LCB	Surface treated rural	$ 1,088,510	$ 326,553	$ 2,598,144	$ 779,443
Ferry Street	Mcintyre St	Pcl 5213 (Spanish River)	Narin Center	0.4	LCB	Surface treated rural	$ 1,088,510	$ 435,404	$ 2,598,144	$ 1,039,258
Front St	Spencer Lane North	McDonald	Narin Center	0.4	LCB	Surface treated rural	$ 1,088,510	$ 435,404	$ 2,598,144	$ 1,039,258
Minto St	Mcintyre St	North East Limit (Lot 52)	Narin Center	0.6	LCB	Surface treated rural	$ 1,088,510	$ 653,106	$ 2,598,144	$ 1,558,887
Davis Street	Minto St	end	Nairn Center	0.2	LCB	Surface treated rural	$ 1,088,510	$ 217,702	$ 2,598,144	$ 519,629
Sand Bay Road	Con 5 Lot 5	Con 6 Lot 10	Hyman Twsp	4.9	LCB	Surface treated rural	$ 1,088,510	$ 5,333,700	$ 2,598,144	$ 12,730,907
						Total		$ 32,034,136		$ 75,691,562

Municipality Of Nairn & Hyman
Asset Management Plan
ROAD MANAGEMENT PLAN 2013 - 2022

ROAD	Road Description/Name From	Road Description/Name To	Township	Length (km)	Surface Type	2017-2021 Road Improvement Expenditures									
						2017		2018		2019		2020		2021	
						C.R.	$	C.R.	$	C.R.	$	C.R.	$	C.R.	$
Smith St South	Hwy 17	McCharles St	Narin Center	0.3	LCB	3.9	129,847.93	10.0		9.8		9.6		9.4	
McCharles	Spenceer Lane S	Smith Street	Narin Center	0.4	GR	3.9	841,000.00	10.0		9.8		9.6		9.4	
Edwards St South	McCharles St	Lot 9-18	Narin Center	0.3	HCB	3.9	154,651.30	10.0		9.8		9.6		9.4	
Sand Bay Road	Con 2 Lot 11	Hydro Powerlines Con 2-3 Lot 11	Hyman Twsp	0.5	GR	5.4		5.2		5.0	$95,771.51	10.0		9.8	
Pine Road	Sandy Bay Road	end	Hyman Twsp	0.7	GR	5.4		5.2		5.0	$134,080.12	10.0		9.8	
Baker Drive	Sandy Bay Road	end	Hyman Twsp	0.7	GR	5.4		5.2		5.0	$134,080.12	10.0		9.8	
Belle Bay Crescent	Sandy Bay Road	Baker Drive	Hyman Twsp	0.7	GR	5.4		5.2		5.0	$134,080.12	10.0		9.8	
Coal Dock Road	Sandy Bay Road	end	Hyman Twsp	0.7	GR	5.4		5.2		5.0	$134,080.12	10.0		9.8	
Sand Bay Road	Con 4 Lot 2	Con 5 Lot 5	Hyman Twsp	5.9	GR	5.4		5.2		5.0	$1,130,103.84	10.0		9.8	
Headquarters Hill Road	Sandy Bay Road	the bridge	Hyman Twsp	0.7	GR	5.4		5.2		5.0	$134,080.12	10.0		9.8	
Nairn Falls Road	Ferry Street	Nairn Falls Beach	Nairn Center	0.7	GR	5.4		5.2		5.0	$134,080.12	10.0		9.8	
Sand Bay Road	Con 6 Lot 10	Spanish River	Hyman Twsp	0.3	GR	5.4		5.2		5.0	$57,462.91	10.0		9.8	
Smith Lane	McCharles St	Lot 36	Narin Center	0.3	GR	5.4		5.2		5.0	$57,462.91	10.0		9.8	
Sand Bay Road	Hydro Powerlines Con 2-3 Lot 11	Con 4 Lot 2	Hyman Twsp	1.7	GR	5.4		5.2		5.0	$325,623.14	10.0		9.8	
Old Nairn Road(Old Hwy	Hwy 17	Day St-Minto Intersection	Narin Center	2	GR	5.4		5.2		5.0	$383,086.05	10.0		9.8	
Edwards St	McCharles St	end	Narin Center	0.1	GR	5.4		5.2		5.0	$19,154.30	10.0		9.8	
Gay Lane	Mcintyre St	Minto	Narin Center	0.1	GR	5.4		5.2		5.0	$19,154.30	10.0		9.8	
Chown St	Minto	Pt 1 SR056 Lot 11	Narin Center	0.2	GR	5.4		5.2		5.0	$38,308.60	10.0		9.8	
Spencer Lane North	Hwy 17	Front St	Narin Center	0.2	GR	5.4		5.2		5.0	$38,308.60	10.0		9.8	
Birch St	Hwy 17	Pcl 12341 Con 2-3 Lot 10	Hyman Twsp	0.8	GR	5.4		5.2		5.0	$153,234.42	10.0		9.8	
Spanish Lane	McDonald St	end	Narin Center	0.05	LCB	5.4		5.2		5.0	$17,989.02	10.0		9.8	
Nelson St	Front St	Hwy 17 (dead end)	Narin Center	0.15	LCB	5.4		5.2		5.0	$53,967.05	10.0		9.8	
McIntyre St	Minto St	Smith St	Nairn Center	0.15	HCB	5.4		5.2		5.0	$58,709.35	10.0		9.8	
Hall St	Front st	Hwy 17	Narin Center	0.2	LCB	5.4		5.2		5.0	$71,956.07	10.0		9.8	
Stanley St	Front St	Hwy 17 (dead end)	Narin Center	0.2	LCB	5.4		5.2		5.0	$71,956.07	10.0		9.8	
Taylor St North	Front St	Hwy 17	Narin Center	0.2	LCB	5.4		5.2		5.0	$71,956.07	10.0		9.8	
Taylor St South	McCharles St	Lot 27-36	Narin Center	0.3	LCB	5.4		5.2		5.0	$107,934.11	10.0		9.8	
Ferry Street	Mcintyre St	Pcl 5213 (Spanish River)	Narin Center	0.4	LCB	5.4		5.2		5.0	$143,912.15	10.0		9.8	
Front St	Spencer Lane North	McDonald	Narin Center	0.4	LCB	5.4		5.2		5.0	$143,912.15	10.0		9.8	
Minto St	Mcintyre St	North East Limit (Lot 52)	Narin Center	0.6	LCB	5.4		5.2		5.0	$215,868.22	10.0		9.8	
Day St	Minto St	EB Eddy Plant Entrance	Narin Center	0.6	HCB	5.4		5.2		5.0	$234,837.41	10.0		9.8	
Short Street	Sandy Bay Road	end	Hyman Twsp	0.7	HCB	5.4		5.2		5.0	$273,976.98	10.0		9.8	
Minto St	Day St	Mcintyre St	Narin Center	0.9	HCB	5.4		5.2		5.0	$352,256.12	10.0		9.8	
Davis Street	Minto St	end	Nairn Center	0.2	LCB	7.4		7.2		7.0		6.8		6.6	
Sand Bay Road	Hwy 17	Con 2 Lot 11	Hyman Twsp	1.2	HCB	7.4		7.2		7.0		6.8		6.6	
Sand Bay Road	Con 5 Lot 5	Con 6 Lot 10	Hyman Twsp	4.9	LCB	7.4		7.2		7.0		6.8		6.6	
Front St Laneway	McDonald	Lot 12 (m-36)	Narin Center	0.3	GR	10.0		9.8		9.6		9.4		9.2	
Spencer Lane South	Hwy 17	Lot 5	Narin Center	0.3	GR	10.0		9.8		9.6		9.4		9.2	
McDonald St	Front st	Hwy 17	Narin Center	0.8	HCB	10.0		9.8		9.6		9.4		9.2	
			Total	29.85			1,125,499.23		-		4,941,382.06		-		-

Municipality Of Nairn & Hyman
Asset Management Plan
ROAD MANAGEMENT PLAN 2013 - 2022

ROAD	Road Description/Name From	Road Description/Name To	Township	Length (km)	Surface Type	2022-2026 Road Improvement Expenditures									
						2022		2023		2024		2025		2026	
						C.R.	$	C.R.	$	C.R.	$	C.R.	$	C.R.	$
Smith St South	Hwy 17	McCharles St	Narin Center	0.3	LCB	9.2		9.0		8.8		8.6		8.4	
McCharles	Spenceer Lane S	Smith Street	Narin Center	0.4	GR	9.2		9.0		8.8		8.6		8.4	
Edwards St South	McCharles St	Lot 9-18	Narin Center	0.3	HCB	9.2		9.0		8.8		8.6		8.4	
Sand Bay Road	Con 2 Lot 11	Hydro Powerlines Con 2-3 Lot 11	Hyman Twsp	0.5	GR	9.6		9.4		9.2		9.0		8.8	
Pine Road	Sandy Bay Road	end	Hyman Twsp	0.7	GR	9.6		9.4		9.2		9.0		8.8	
Baker Drive	Sandy Bay Road	end	Hyman Twsp	0.7	GR	9.6		9.4		9.2		9.0		8.8	
Belle Bay Crescent	Sandy Bay Road	Baker Drive	Hyman Twsp	0.7	GR	9.6		9.4		9.2		9.0		8.8	
Coal Dock Road	Sandy Bay Road	end	Hyman Twsp	0.7	GR	9.6		9.4		9.2		9.0		8.8	
Sand Bay Road	Con 4 Lot 2	Con 5 Lot 5	Hyman Twsp	5.9	GR	9.6		9.4		9.2		9.0		8.8	
Headquarters Hill Road	Sandy Bay Road	the bridge	Hyman Twsp	0.7	GR	9.6		9.4		9.2		9.0		8.8	
Nairn Falls Road	Ferry Street	Nairn Falls Beach	Nairn Center	0.7	GR	9.6		9.4		9.2		9.0		8.8	
Sand Bay Road	Con 6 Lot 10	Spanish River	Hyman Twsp	0.3	GR	9.6		9.4		9.2		9.0		8.8	
Smith Lane	McCharles St	Lot 36	Narin Center	0.3	GR	9.6		9.4		9.2		9.0		8.8	
Sand Bay Road	Hydro Powerlines Con 2-3 Lot 11	Con 4 Lot 2	Hyman Twsp	1.7	GR	9.6		9.4		9.2		9.0		8.8	
Old Nairn Road(Old Hwy	Hwy 17	Day St-Minto Intersection	Narin Center	2	GR	9.6		9.4		9.2		9.0		8.8	
Edwards St	McCharles St	end	Narin Center	0.1	GR	9.6		9.4		9.2		9.0		8.8	
Gay Lane	Mcintyre St	Minto	Narin Center	0.1	GR	9.6		9.4		9.2		9.0		8.8	
Chown St	Minto	Pt 1 SR056 Lot 11	Narin Center	0.2	GR	9.6		9.4		9.2		9.0		8.8	
Spencer Lane North	Hwy 17	Front St	Narin Center	0.2	GR	9.6		9.4		9.2		9.0		8.8	
Birch St	Hwy 17	Pcl 12341 Con 2-3 Lot 10	Hyman Twsp	0.8	GR	9.6		9.4		9.2		9.0		8.8	
Spanish Lane	McDonald St	end	Narin Center	0.05	LCB	9.6		9.4		9.2		9.0		8.8	
Nelson St	Front St	Hwy 17 (dead end)	Narin Center	0.15	LCB	9.6		9.4		9.2		9.0		8.8	
McIntyre St	Minto St	Smith St	Nairn Center	0.15	HCB	9.6		9.4		9.2		9.0		8.8	
Hall St	Front st	Hwy 17	Narin Center	0.2	LCB	9.6		9.4		9.2		9.0		8.8	
Stanley St	Front St	Hwy 17 (dead end)	Narin Center	0.2	LCB	9.6		9.4		9.2		9.0		8.8	
Taylor St North	Front St	Hwy 17	Narin Center	0.2	LCB	9.6		9.4		9.2		9.0		8.8	
Taylor St South	McCharles St	Lot 27-36	Narin Center	0.3	LCB	9.6		9.4		9.2		9.0		8.8	
Ferry Street	Mcintyre St	Pcl 5213 (Spanish River)	Narin Center	0.4	LCB	9.6		9.4		9.2		9.0		8.8	
Front St	Spencer Lane North	McDonald	Narin Center	0.4	LCB	9.6		9.4		9.2		9.0		8.8	
Minto St	Mcintyre St	North East Limit (Lot 52)	Narin Center	0.6	LCB	9.6		9.4		9.2		9.0		8.8	
Day St	Minto St	EB Eddy Plant Entrance	Narin Center	0.6	HCB	9.6		9.4		9.2		9.0		8.8	
Short Street	Sandy Bay Road	end	Hyman Twsp	0.7	HCB	9.6		9.4		9.2		9.0		8.8	
Minto St	Day St	Mcintyre St	Narin Center	0.9	HCB	9.6		9.4		9.2		9.0		8.8	
Davis Street	Minto St	end	Nairn Center	0.2	LCB	6.4		6.2		6.0		5.8		5.6	
Sand Bay Road	Hwy 17	Con 2 Lot 11	Hyman Twsp	1.2	HCB	6.4		6.2		6.0		5.8		5.6	
Sand Bay Road	Con 5 Lot 5	Con 6 Lot 10	Hyman Twsp	4.9	LCB	6.4		6.2		6.0		5.8		5.6	
Front St Laneway	McDonald	Lot 12 (m-36)	Narin Center	0.3	GR	9.0		8.8		8.6		8.4		8.2	
Spencer Lane South	Hwy 17	Lot 5	Narin Center	0.3	GR	9.0		8.8		8.6		8.4		8.2	
McDonald St	Front st	Hwy 17	Narin Center	0.8	HCB	9.0		8.8		8.6		8.4		8.2	
			Total	29.85			-		-		-		-		-

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Appendix B
Infrastructure Profile
Water

Municipality Of Nairn-Hyman
Asset Management Plan
Potable Water Distribution System - Mains

Watermain	Section	Description - Section From	To	Length In Meters	Diameter	Date Installed	Years Of Service	Life Cycle Cost (80 Years)	Anticipated Date To Replace	Replacement Cost 2013
Sec 4	Mcintryre St	Ferry Lane	east end of McIntyre	14	250	1996	19	$13,281.91	2076	$9,944.12
Sec 6	Mcintryre St & Gay Lane	Ferry Lane	Minto St	217	250	1996	19	$205,869.59	2076	$154,133.89
Sec 10	Cpr Crossing	Mcintyre St	Front St	38	250	1996	19	$36,050.90	2076	$26,991.19
Sec 11	Front St	Spencer Lane	McDonald St	136	250	1996	19	$129,024.26	2076	$96,600.04
Sec 23	Smith St	Hwy 17	McCharles Ave	208	250	1996	19	$197,331.22	2076	$147,741.24
Sec 23	Smith St	Hwy 17	McCharles Ave	24	250	1996	19	$22,768.99	2076	$17,047.07
Sec 17	McDonald St	Front St	East end of McDonald St	87	250	1996	19	$82,537.58	2076	$61,795.61
Sec 2	Ferry Lane	Water Treatment Plant	to McIntyre St	25.5	200	1996	19	$22,218.40	2081	$16,243.35
Sec 6	Mcintryre St & Gay Lane	Ferry Lane	Minto St	75	200	1996	19	$65,348.24	2081	$47,774.57
Sec 9	Spencer Lane	Minto St	South End of Hwy 17 Crossing	204	200	1996	19	$177,747.22	2081	$129,946.83
Sec 9	Spencer Lane	Minto St	South End of Hwy 17 Crossing	24	200	1996	19	$20,911.44	2081	$15,287.86
Sec 11	Front St	Spencer Lane	McDonald St	281	200	1996	19	$244,838.09	2081	$178,995.39
Sec 14	Smith St	Front St	South end of Hwy 17 Crossing	187	200	1996	19	$162,934.95	2081	$119,117.93
Sec 22	Spencer Lane	Hwy 17	South End of Spencer Lane	100	200	1996	19	$87,130.99	2081	$63,699.43
Sec 24	McCharles	Smith	Spencer Lane	403	200	1996	19	$351,137.90	2081	$256,708.69
Sec 8	Minto St	Chown St	Davis St	186	200	1996	19	$162,063.64	2081	$118,480.94
Sec 17	McDonald St	Front St	East end of McDonald St	24	200	1996	19	$20,911.44	2081	$15,287.86
Sec 2	Ferry Lane	Water Treatment Plant	to McIntyre St	375	150	1996	19	$290,341.12	2086	$209,746.22
Sec 3	Minto St	Ferry Lane	East end of Minto	145	150	1996	19	$112,265.23	2086	$81,101.87
Sec 4	Mcintryre St	Ferry Lane	east end of McIntyre	383	150	1996	19	$296,535.06	2086	$214,220.80
Sec 4	Mcintryre St	Ferry Lane	east end of McIntyre	28	150	1996	19	$21,678.80	2086	$15,661.05
Sec 5	Minto St	Ferry Lane	Chown St	206	150	1996	19	$159,494.05	2086	$115,220.59
Sec 7	Chown St	Minto St	North end of Chown St	101	150	1996	19	$78,198.54	2086	$56,491.65
Sec 8	Minto St	Chown St	Davis St	615	150	1996	19	$476,159.43	2086	$343,983.79
Sec 9	Spencer Lane	Minto St	South End of Hwy 17 Crossing	121	150	1996	19	$93,683.40	2086	$67,678.11
Sec 11	Front St	Spencer Lane	McDonald St	60	150	1996	19	$46,454.58	2086	$33,559.39
Sec 12	Stanley St	Front St	South End of Stanley St	175	150	1996	19	$135,492.52	2086	$97,881.57
Sec 13	Taylor St N	Front St	Hwy 17	180	150	1996	19	$139,363.74	2086	$100,678.18
Sec 15	Hall St	Front St	South end of Hall St	181	150	1996	19	$140,137.98	2086	$101,237.51
Sec 16	Nelson St	McDonald St	South end of Nelson St	99	150	1996	19	$76,650.05	2086	$55,373.00
Sec 17	McDonald St	Front St	East end of McDonald St	359	150	1996	19	$277,953.23	2086	$200,797.04
Sec 18	Front St	McDonald St	East end of Front	139	150	1996	19	$107,619.77	2086	$77,745.93
Sec 20	Hwy 17	Stanley St	Tayor St Loop	104	150	1996	19	$80,521.27	2086	$58,169.62
Sec 21	Hwy 17	Spencer Lane	Hwy 17 West (BLD #305)	97	150	1996	19	$75,101.57	2086	$54,254.35
Sec 22	Spencer Lane	Hwy 17	South End of Spencer Lane	110	150	1996	19	$85,166.73	2086	$61,525.56
Sec 24	McCharles	Smith	Spencer Lane	21	150	1996	19	$16,259.10	2086	$11,745.79
Sec 25	Edward St	McCharles Ave	South end of Edwards St	253	150	1996	19	$195,883.47	2086	$141,508.78
Sec 26	Taylor St N	McCharles Ave	South End of Taylor St	292	150	1996	19	$226,078.95	2086	$163,322.39
Sec 27	Smith St	McCharles Ave	South end of Smith St	142	150	1996	19	$109,942.50	2086	$79,423.90
Sec 17	McDonald St	Front St	East end of McDonald St	184	150	1996	19	$142,460.71	2086	$102,915.48
							Total	$5,385,548.53		$3,920,038.58

Summary of Asset Replacment & Cost by Year	
Total Replacement Cost 2076	$514,253.15
Total Replacement Cost 2081	$961,542.86
Total Replacement Cost 2086	$2,444,242.57

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Appendix C
Infrastructure Profile
Buildings and Facilities

NAIRN AND HYMAN

BUILDING ASSET SUMMARY

		General Building Information				Remaining Service Life				Facility Condition Index (FCI)	Associated Costs				
	Building Name	Use	Year of Construction	Age (Yrs)	Size (ft^2)	Structure	Mechanical	Electrical	Roof		Replacement Cost	Life Cycle Costs			
												Immediate	0-5 Years	5-10 Years	Total
1	Municipal Office and Community Center	Government/Recreation	1975	38	6,300	28	11	35	8	8.0%	$770,373.00	$0.00	$0.00	$61,425.00	$61,425.00
2	Firehall - Narin (McIntyre St.)	Fire Department	1980	33	1,920	53	11	5	11	1.1%	$350,765.00	$0.00	$4,000.00	$0.00	$4,000.00
3	Firehall - Hyman (Coal Dock Rd.)	Fire Department	1999	14	1,098	76	20	8	20	2.1%	$239,307.00	$1,000.00	$4,000.00	$0.00	$5,000.00
4	Public Works Garage	Public Works	1980	33	2,030	34	9	7	53	9.1%	$259,605.00	$0.00	$20,000.00	$3,500.00	$23,500.00
5	Outdoor Rink - Building and Rink*	Recreation	1999	14	600	45	20	8	12	1.3%	$309,611.00	$1,000.00	$0.00	$3,000.00	$4,000.00
6	Outdoor Rink - Roof Structure	Recreation	2008	5	8,875	88	NA	19	31	0.0%	$273,182.00	$0.00	$0.00	$0.00	$0.00
7	Baseball Pavillion	Recreation	1983	30	1,500	20	NA	7	8	46.7%	$35,568.00	$0.00	$0.00	$16,625.00	$16,625.00
8	Water Treatment Plant	Water	1995	18	2,520	57	15	3	29	24.5%	$1,420,545.00	$103,070.00	$228,253.00	$16,798.00	$348,121.00
												$105,070.00	$256,253.00	$101,348.00	$462,671.00

Facility Condition Index (FCI)	
Good	< 5%
Fair	5% - 10 %
Poor	> 10%

KPMG

cutting through complexity

Asset Management Planning
for the Township of Nairn and Hyman

Appendix D
Infrastructure Profile
Vehicles

Municipality Of Nairn & Hyman
Asset Management Plan
Fleet

Assessment Year: 2013

Asset ID	Asset Name	Purchase Year	Replacement Cost	Classification	Age	Estimated Useful Life	Remaining Useful Life	Immediate Replacement	Replace Within Five Years	Replace Within Ten Years
FDVE001PU	**1999 Freightliner Pumper**	1999	$250,000	**Fire truck - heavy**	16	**20**	4	$ -	$ 250,000.00	$ -
FDVE007RS	**Rescue Van - Vehicle 751**	2006	$50,000	**Light vehicle**	9	**9**	0	$ 50,000.00	$ -	$ -
FDVE009PU	**1974 Pumper**	1978	$250,000	**Fire truck - heavy**	37	**20**	0	$ 250,000.00	$ -	$ -
FDVE011TA	**2000 International Tanker Truck**	2008	$250,000	**Fire truck - heavy**	7	**20**	13	$ -	$ -	$ -
RDGA001PT	**Plow Truck 1997 Freightliner**	1997	$225,000	**Snowplow**	18	**15**	0	$ 225,000.00	$ -	$ -
RDGA001BH	**2001 John Deere Backhoe**	2007	$100,000	**Backhoe and loader**	8	**12**	4	$ -	$ 100,000.00	$ -
RDGA0002FD	**2012 Ford F-350**	2012	$60,000	**Light truck**	3	**9**	6	$ -	$ -	$ 60,000.00
	2015 Western Star	2015	$200,000	**Heavy truck**	0	**20**	20	$ -	$ -	$ -
	1982 JD 450C Loader	2015	$200,000	**Backhoe and loader**	0	**12**	12	$ -	$ -	$ -
							Total	$ 525,000.00	$ 350,000.00	$ 60,000.00

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.