

# MUNICIPALITY OF MISSISSIPPI MILLS



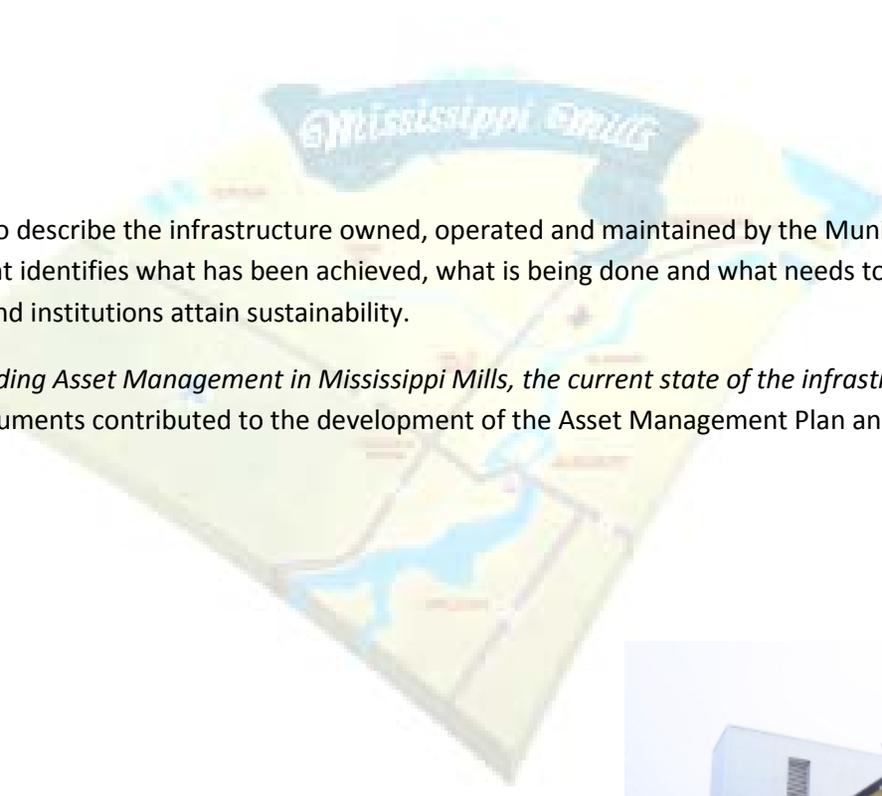
December, 2016



## PREFACE

This Asset Management Plan is intended to describe the infrastructure owned, operated and maintained by the Municipality of Mississippi Mills to support its core services. This document identifies what has been achieved, what is being done and what needs to be done to ensure core services provided to citizens, businesses and institutions attain sustainability.

*This document provides information regarding Asset Management in Mississippi Mills, the current state of the infrastructure along with current and future activities. Several external documents contributed to the development of the Asset Management Plan and are referenced in the document.*



## EXECUTIVE SUMMARY

The Municipality of Mississippi Mills' existing capital assets age and deteriorate over time eventually requiring replacement while demand grows for better infrastructure. The demand is in response to higher safety standards, accessibility, health, environmental protection, regulations and growth. The solution to address future replacement and addition of new infrastructure is to change the way the Municipality plans, designs and manages its infrastructure.

The asset management plan for the Municipality of Mississippi Mills is comprised of two sections as follows:

- 1) An overview of the fundamentals of an asset management plan based upon information obtained from other municipalities, from the Municipality's external studies and reports and from the Province of Ontario's Guide for Municipal Asset Management Plans and
- 2) An asset management strategy for Bridges and Large Culverts, Water mains, Sanitary Sewers and other Water & Sewer assets, Storm Sewers, Roads and Other Public Works Assets, Building and Other Structures, Vehicles & Equipment, Parks, and Misc. Equipment

Like many other municipalities in Ontario and across Canada, there is a backlog of replacement needs for the Municipality's infrastructure. This plan is intended to help:

- Council make service level and investment decisions
- Staff make planning and management decisions with regard to asset replacement and maintenance
- Residents by sustaining value for the services provided

In 2012, Council approved a long term financial plan including a capital plan for those assets funded by the tax base, which, since then, has been updated on a yearly basis. Early in 2015, Council updated its water and wastewater financial plan for those assets funded from water and sewer user fees. Together these documents provide a level of funding to address the replacement and maintenance needs of the Municipality's capital assets for the next several years to ensure that investments in the Municipality's capital assets are made at the appropriate time and the appropriate level to reduce risks and maximize benefits.

## **Definitions:**

1. **Amortization/Depreciation** is a method to allocate the cost of an asset over its estimated useful life in a systematic and rational manner appropriate to its nature and use by the Municipality.
2. **Capital Assets** are non financial assets having physical substance that:
  - Are held for use in the production or supply of goods and services, for rental to others, for administrative purposes or for the development, construction, maintenance or repair of other capital assets;
  - Have useful economic lives extending beyond an accounting period (1 year);
  - Are to be used on a continuing basis; and
  - Are not for sale in the ordinary course of operations.
3. **Historical Cost** is the cost on the date the asset was originally constructed or acquired (in-service date).
4. **Maintenance** is the cost of preserving the asset in its current condition and is not expected to extend the useful life of the asset or increase the service potential of the asset.
5. **Lifecycle Cost** is the sum of all recurring and one-time costs over the life of a capital asset including purchase price, installation costs, operating costs, maintenance and upgrade costs and remaining residual value at the end of its useful life.
6. **Net Book Value** of a tangible capital asset is its historical cost, less both accumulated amortization/depreciation and the amount of any write-downs.
7. **Replacement Cost** is the cost to replace the capital asset expressed in current dollars including installing the asset in its place of intended use.
8. **Residual Value** is the estimated net realizable value of a capital asset at the end of its useful life to the Municipality.
9. **Useful Life** is the estimate of either the period over which a capital asset is expected to be used by the Municipality, or the number of production of similar units that can be obtained from the capital asset by the Municipality. The life of a capital asset may extend beyond the useful life of a capital asset to the Municipality. The life of a capital asset, other than land, is finite and is normally the shortest of the physical, technological, commercial and legal life.

## **Introduction:**

The Asset Management Plan is a plan to effectively manage all of the Municipality of Mississippi Mills' capital assets that it uses either directly or indirectly to deliver services to its residents. The purpose of an asset management plan is to assist the Municipality in maintaining its capital assets in the appropriate condition by applying the right intervention at the right time on the right assets recognizing risk and affordability.

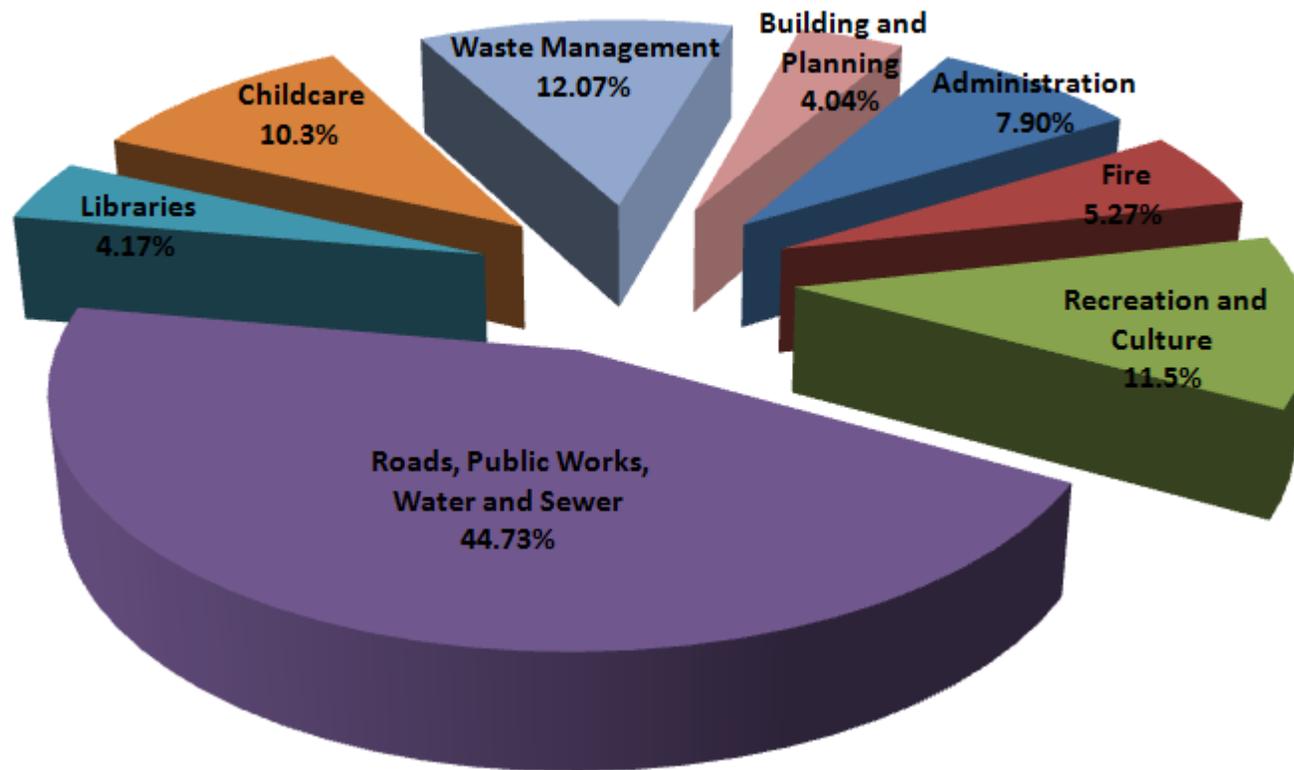
The Asset Management Plan is an integrated approach involving planning, finance, engineering, maintenance and operations geared towards effectively managing existing and new infrastructure to maximize benefits, reduce risks and provide safe, reliable levels of service to community users in the most cost effective manner.

An integral part of the asset management plan is the long term financial plan which ensures that sufficient funds are available to rehabilitate and replace assets when required. The financial plan includes all of the costs required to operate, rehabilitate, dispose and ultimately replace the asset in the optimal time with the intention of achieving the lowest lifecycle cost. The financial plan helps to ensure that current users pay a fair share of the services they receive and future users pay a similar cost for the same level of service which ensures multi-generational equity and fairness.

Like many municipalities in the Province of Ontario, there is an ongoing struggle to fund the replacement of capital assets when necessary. The Municipality of Mississippi Mills uses a combination of taxation, user fees, reserves, development charges and long term financing to ensure that the Municipality's assets are maintained and replaced when required to mitigate risks, avoid losses in service delivery and avoid higher replacement costs associated with deferral. The Municipality continues to pursue Federal and Provincial grant opportunities or alternative funding sources whenever possible to reduce the reliance on debt financing and taxation increases. Policies surrounding long term financing and reserves have been developed and in 2012 the Municipality's long term financial plan was approved by Council. The financial plan is continually reviewed and updated as new information becomes available and as circumstances change.

The Municipality also has many public services that rely on capital assets to support their delivery such as Administration, Fire, Recreation and Culture, Water and Sewer, Libraries, Child Care, Waste Management, Roads and Public Works, and Building and Planning. Similar to many Ontario Municipalities, Roads and Public Works combined with Water and Sewer represent the largest share of the services offered by the Municipality and for Mississippi Mills with a total share of 44.73%. As a result, these departments are responsible for the timely replacement and maintenance of a significant portion of the Municipality's capital assets. The following chart depicts the allocation of core services in Mississippi Mills:

## Municipality of Mississippi Mills-Core Services



## Components of the Asset Management Plan:

### 1) Asset Value:

All municipally owned assets have a monetary value. Staff have determined actual or estimated replacement values for the Municipality's infrastructure and in addition have determined historical cost valuations in conjunction with PSAB 3150 reporting.

### 2) Lifecycle Management:

All assets have a life expectancy. To some degree the rate of deterioration can be estimated. A decision made at any point in time during the lifecycle of an asset has an effect on the remaining life and may have operational cost implications. The useful life for each asset is contained in the Municipality's PSAB 3150 data and reports.

### 3) Sustainability/Financial Plan:

Sustainability is defined as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. This definition is from the National Guide to Sustainable Infrastructure. The financial plan ensures that sufficient funds exist to operate, rehabilitate, and replace capital assets at the optimal time with the intention of achieving the lowest lifecycle cost. A municipality is considered financially sustainable when the following conditions are met:

- There is a reasonable degree of stability and predictability with respect to taxation
- Future generations will not face massive decreases in services and unreasonable property tax increases or user fee increases to deal with items deferred from this generation
- The current generation does not bear a disproportionate burden of funding items that will benefit future generations
- Council's highest priority programs both operating and capital can be maintained.

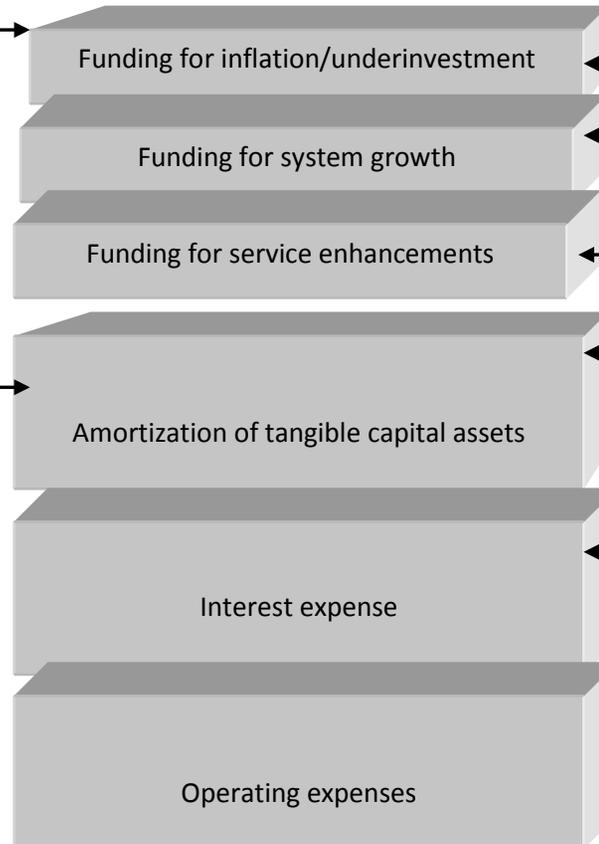
The following diagram depicts the elements of a sustainable asset management plan and conveys that adequate funding needs to be available in the future to support the total future replacement costs of the Municipality's capital assets which include inflation, technological advancements, legislation, accessibility, growth pressures, or changes required because of alternative service delivery methods. Annual investments in capital replacement strategies either through annual capital budgets or reserve allocations must consider all of these future costs rather than historic expenditure levels. The Municipality's financial plans in **Appendix D** provide funding levels to support future replacement needs.

## SUSTAINABLE ASSET MANAGEMENT

### COST SIDE

These items together fund replacement cost.

This is an accounting view of cost under municipal full accrual accounting practices (effective 2009).



### REVENUE SIDE

A sustainable level of revenue accounts for the future investment needs of the Municipality as well as current period expenses.

If revenues are at this point, the Municipality can meet current expenses. It is not adequately planning for the future.

If revenues are at this point, the Municipality is just recovering cash costs and is significantly under-funded.

#### 4) Levels of Service

Levels of service define the extent to which services are provided to the Municipality's residents. The levels of service need to be reasonable taking into consideration factors such as affordability and risk. Levels of service can be defined at three levels; corporate, customer and asset.

- Corporate sets overall municipal objectives and targets
- Customer defines the resident's expectations
- Asset defines the technical requirements to achieve the desired service objectives i.e. watermain material with an expected life of at least 80 years to reduce frequency of failure and service interruptions

#### 5) Strategy

The Asset Management strategy is the set of planned actions that will enable the assets to provide the desired levels of service in a sustainable way while managing risk at the lowest lifecycle cost.

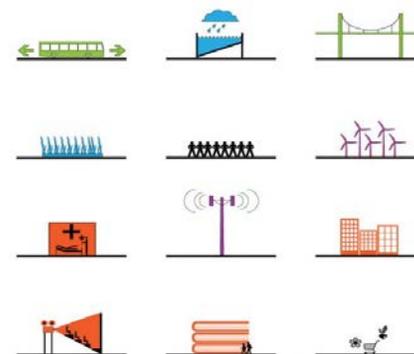
### **Benefits of an Asset Management Plan:**

The following are the benefits of an asset management plan:

- Improved decision making regarding resource allocation  
Asset management planning can be used to provide decision makers with objective, evidence based advice regarding the allocation of resources and help stream-line the decision making process during budget deliberations.
- Asset Management pays for itself  
The costs of moving towards a detailed asset management plan are offset by the savings realized from optimizing investments and better managing risk.
- Reduces risks  
Asset management reduces risks by identifying issues and allowing for early intervention.
- Improved public confidence  
A publicly communicated asset management plan provides greater accountability and transparency by demonstrating that public money is being invested responsibly and by showing that results are being achieved.

## Future Demand on Infrastructure

The Asset Management plan to maintain and replace the Municipality's existing infrastructure is crucial but as the Municipality grows, future demand for new assets or expanded services will place additional pressure on the Municipality to construct new infrastructure to meet this need. As well, most assets are long-lived so how they are constructed needs to consider changing conditions. These changes can be related to shifts in demographics, changing climate, legislative requirements or evolving technology. This Asset Management Plan will continue to evolve and be updated as circumstances change in the future.



## Appendices

The Municipality of Mississippi Mills is a service delivery organization with responsibility for managing a large number of physical assets as depicted in **Appendix A** such as land, vehicles, buildings, parks etc. Also listed in **Appendix A** is the historical cost, accumulated amortization and net book value of the Municipality's capital assets at December 31, 2015 as well as the approximate replacement value. The historical cost of the Municipality's asset complement is approximately \$97 million with an estimated replacement value of \$164 million. **Note: Replacement cost information comes from multiple sources and may be conservative as no recent studies/reports are available with up to date replacement data. Replacement information will continue to be updated as it becomes available.**

**Appendix B** depicts the Municipality's capital assets at December 31, 2015 by core service area. Also depicted are the historical costs, accumulated amortization, net book value and approximate replacement value by core service of all of the Municipality's assets. As expected the departments of Roads and Public Works and Water and Sewer are responsible for the timely maintenance and replacement of a significant portion of the Municipality's capital assets.

**Appendix C** provides a summary of the Municipality's PSAB 3150 reporting requirements at December 31, 2015 depicting a net book value (historical cost less amortization) of approximately \$66.3 million. Annual amortization is \$2.6 million. Further details of the Municipality's capital assets can be found in the Municipality's supplemental PSAB 3150 data and reports.

**Appendix D** contains the long term financial plan for those capital assets supported by the tax base including related operational requirements. The plan was first prepared by BMA Management Consultants Inc. in 2010 and has been updated to reflect expected future capital replacement needs. The financial plan requires a 7% tax levy increase each year until 2018 and a 2.5% tax levy increase each year for the remainder of the plan. The financial plan will continue to be updated as circumstances change or as new information becomes available. The intent of the plan is

to provide sufficient funds to address capital replacement when required, including growth requirements, and to place less reliance on long term financing and to begin to increase reserve balances for capital requirements in the future. Also included in **Appendix D** is the Water and Wastewater rate study for those assets supported by water and sewer user fees. The report was first prepared in 2009 by Watson and Associates Economists Limited and was then updated in 2013 and again in 2015 for results of the Municipality's Water and Sewer Master Plan and risk based analysis. The rate study provides funding to support water and sewer capital requirements including growth requirements to 2024.

**Appendix E** contains the Municipality's asset management strategies. The strategy for each asset class depicts the anticipated lifecycle, integration with other asset replacement, condition assessment, rehabilitation and investment strategies, maintenance strategies, desired levels of service, lifecycle consequences, additional external reports, procurement methods, financial strategies and any other pertinent information related to that asset class. The strategies for maintenance and replacement are included in the Municipality's long term financial plan and the Water and Wastewater Rate Study depending on whether the asset is supported by the tax base or water and sewer user fees (Appendix D).

**Appendix F** contains the water and sewer inventories and provides information on asset location, year of construction, pipe sizes and materials, length of pipe, estimated replacement value, useful life and anticipated year of replacement.

### **Other Studies and Documents**

The following studies and documents contributed to the development of this *Asset Management Plan*:

- *BMA Financial Condition Assessment completed in 2010 and supplemental to the Long Term Financial Plan*
- *PSAB 3150 supplemental information (i.e. detailed inventory and useful life data) prepared in 2009 with updates to 2015*
- 2014 Development Charges Study
- Bridge Management Studies completed in 2013, 2011 and 2009
- 2012 Water and Sewer Master Plan
- Community Official Plan
- Reserve and Debt Policies
- Strategic Plan
- Procurement Policy By-Law 12-79
- AME Canada Ltd Building Condition Assessment reports
- Septage Business Plan
- Parks & Recreation Master Plan



- Rural Network Level Pavement Condition Survey
- Almonte Ward Pavement Condition Survey
- Active Transportation Plan

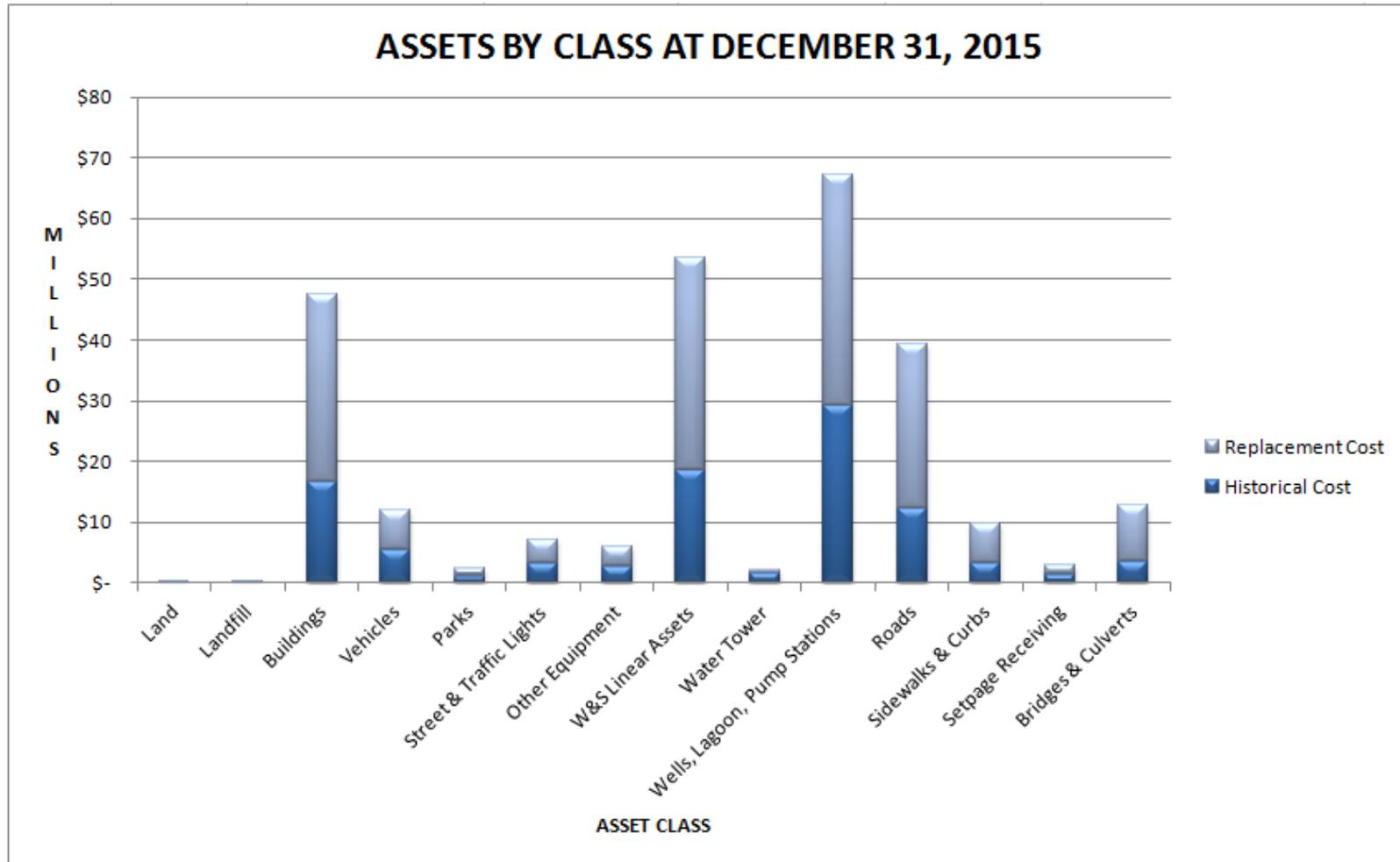
## **Conclusion**

The Municipality of Mississippi Mills has spent significant time and effort over the last several years completing studies, reviews and financial planning reports as well as developing policies that have contributed to the completion of the Municipality's asset management plan. The information contained in all of these documents was used collectively to determine the replacement and rehabilitation strategies including funding strategies for the Municipality's capital assets as required by the Province of Ontario in the Guide for Municipal Asset Management Plans

**APPENDIX A**  
**TOTAL TANGIBLE CAPITAL ASSETS BY ASSET CLASS**  
**AT DECEMBER 31, 2015**

Asset Class	Historical Cost	Accumulated Amortization	Net Book Value	Approximate Replacement Value- 2016 \$
Land	319,898	0	319,898	NOT REPLACING
Landfill Sites	112,423	61,964	50,459	NOT REPLACING
Buildings	16,519,518	6,283,517	10,236,001	31,000,000 (INS)
Vehicles	5,551,908	2,759,099	2,792,809	6,500,000 (BMA)
Parks	1,007,701	550,984	456,717	1,300,000 (BMA)
Street lights and Traffic Lights	3,165,117	2,354,320	810,797	4,000,000 (BMA)
Other Equipment	2,717,612	2,135,783	581,829	3,200,000 (BMA)
Water & Sewer Linear Assets	18,445,147	5,422,148	13,022,999	35,000,000 (WATSON-2009)
Water Tower	1,701,978	867,680	834,298	500,000 (MAJOR MAINT-NO REPLACEMENT)
Wells, Lagoons, Pumping Stations, Waste Water Treatment Plant	29,308,370	3,490,183	25,818,187	38,000,000 (ESTIMATE)
Roads	12,369,852	7,047,173	5,322,679	27,000,000 (AME)
Sidewalks & Curbs	3,322,285	1,245,888	2,076,397	6,500,000 (BMA)
Septage Receiving	1,424,230	106,818	1,317,412	1,600,000 (ESTIMATE)
Bridges & Culverts	3,473,333	749,481	2,723,852	9,200,000 (BMA)
<b>Total</b>	<b>99,439,372</b>	<b>33,075,038</b>	<b>66,364,334</b>	<b>163,800,000</b>

### ASSETS BY CLASS AT DECEMBER 31, 2015

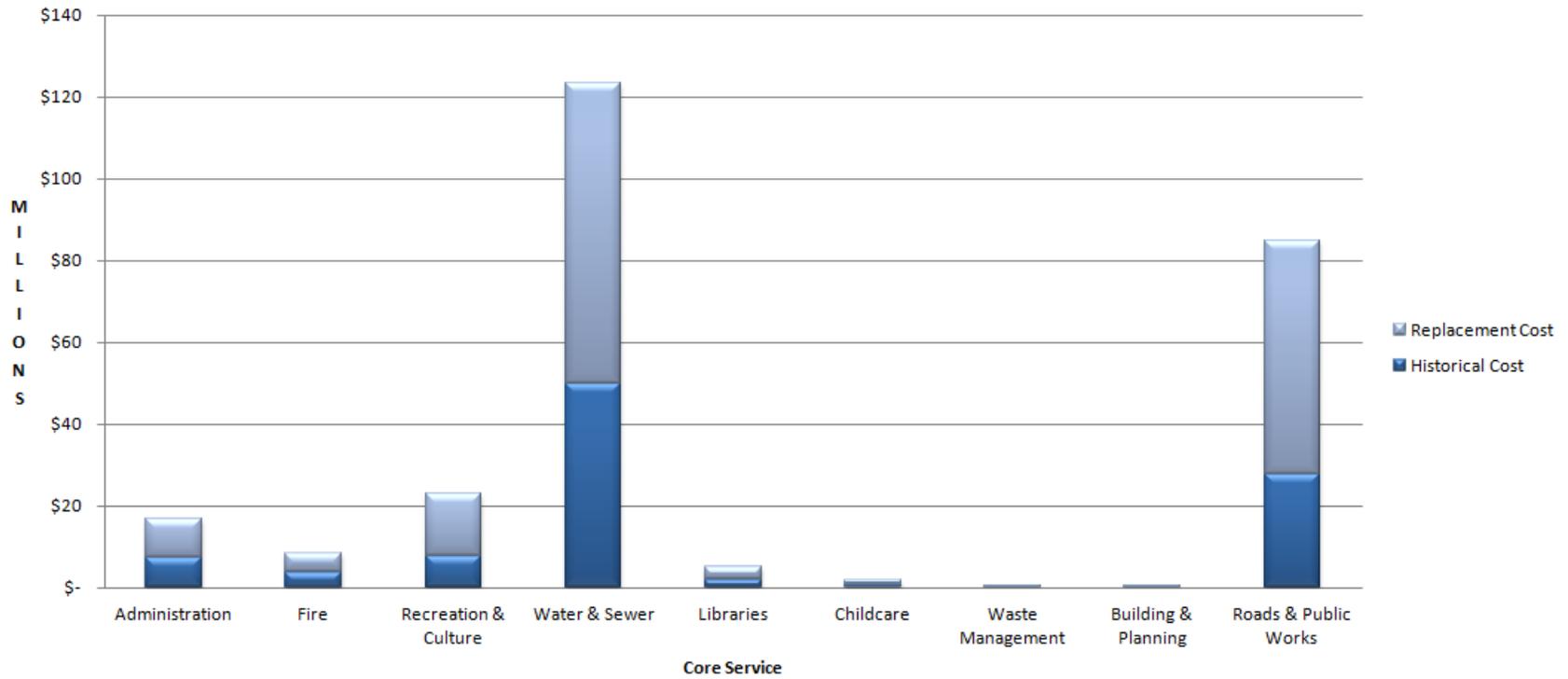


**Note: Replacement cost information comes from multiple sources and may be conservative as no studies/reports are available with up to date replacement data. Replacement information will continue to be updated as it becomes available.**

**APPENDIX B**  
**TOTAL TANGIBLE CAPITAL ASSETS BY CORE SERVICE**  
**AT DECEMBER 31, 2015**

Department	Historical Cost	Accumulated Amortization	Net Book Value	Approximate Replacement Value-2016 \$
Roads & Public Works	27,784,408	14,004,433	13,779,975	56,960,840
Building & Planning	51,556	24,944	26,612	65,000
Waste Management	127,729	72,742	54,987	48,300
Childcare	700,965	322,640	378,325	1,049,490
Libraries	1,958,203	1,542,085	416,118	3,000,000
Water & Sewer	49,770,378	9,933,186	39,837,192	73,500,000
Recreation & Culture	7,792,922	3,544,385	4,248,537	15,127,660
Fire	3,835,452	1,381,303	2,454,149	4,544,490
Administration	7,417,759	2,249,320	5,168,439	9,504,220
<b>Total</b>	<b>99,439,372</b>	<b>33,075,038</b>	<b>66,364,334</b>	<b>163,800,000</b>

### ASSETS BY CORE SERVICE AT DECEMBER 31, 2015



**APPENDIX C**  
**PSAB 3150 SUMMARY**  
**AT DECEMBER 31, 2015**

**APPENDIX D  
FINANCIAL PLANS**

**APPENDIX E**  
**ASSET MANAGEMENT STRATEGY**

**APPENDIX F**  
**WATER AND SEWER INVENTORY**