



Municipality of McDougall

Executive Summary & Introduction

Asset Management Plan 2014-2024



January 2014

INTRODUCTION

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EXECUTIVE SUMMARY

The Municipality of McDougall is a geographically large Northern Municipality with a relatively low and seasonal population of 2,604 households. This means a low taxation base and a large number of roads, bridges and waterworks piping to service the area with limited Municipal Staff. Existing infrastructure is ageing; funding is being cut while demand is growing for better roads, bridges, water and waste water works. The solution to this expanding gap is how Municipalities manage assets now to ensure success for the future.

The Asset Management Plan (AM Plan) includes the non infrastructures solutions, maintenance, renewal, replacement and disposal activities of infrastructure used to provide services. Asset Management is a not new concept; it has always been a primary function of local government.

The AM Plan Process defines:

- What does McDougall own? (Inventory)
- What is it worth? (Valuation)
- The level of operation? (Desired Levels of Service)
- What condition is it in? (State of Local Infrastructure)
- What needs to be done? (Asset Management Strategy)
- How much will it cost and how will it be funded? (Financing Strategy)

McDougall currently has a family of six AM Plans including the road system, fleet and equipment, buildings, drinking water, waste water and leachate water. This series of AM Plans is expected to help:

- Council in making service level decisions and approving financial budgets.
- Municipal Staff with the planning, operating and managing of assets.

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1.0 Municipal Goals

The Municipality and its infrastructure exist to support the delivery of vital services to the residents of McDougall. The Municipality's goals focus on promoting health, safety, convenience and welfare for the inhabitants of McDougall. Obtaining these goals is dependent on how well the Municipality cares for its infrastructure. For instance, safe drinking water keeps residents healthy and improves their quality of life. While community buildings, beaches and parks enable residents to get out and enjoy living in McDougall. Lastly, roads, bridges and culverts allow residents and visitors to travel around the Municipality to work, visit and shop increasing economic activity. The Asset Management Plan (AM Plan) goal is to promote the provision of services at a level that balances Resident and Council expectations with cost and availability of resources.

2.0 The AM Plan's Impact on the Financial Budget

The AM Plan and the Financial Budget (the Budget) are linked together. There is increased pressure on the Budget with aging infrastructure, funding cuts for infrastructure, rising costs and rising customer expectations. The AM Plan optimizes processes for the creation, operation, renewal, maintenance and disposal of assets. The AM Plan requires the financial support of the Budget to turn planning into spending. The AM Plan positively impacts the Budget as it enables the Municipality to look at the 10 year capital expenditure forecast required and financially plan for those expenses today.

3.0 The AM Plan's Impact on the Official Plan

The Official Plan is based on the values and natural assets of the Municipality. It manages and directs physical changes and impacts McDougall's social, economic and natural environment. McDougall's Official Plan aims to preserve the high quality of life in the Municipality and enhance that quality through preserving the natural environment while encouraging sustainable growth in all sectors to attract new citizens and visitors to the community. The AM Plan seeks to put these goals into action by planning for the future development of the Municipality. The AM Plan is linked to the Official Plan as it acts as a reference guide for service levels, demand management and success measurement.

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4.0 Purpose of the AM Plan

The AM Plan is required in order to prepare the Municipality to meet future service delivery requirements. It sets out strategies and financing to address the capital needs of McDougall's assets.

These strategies include:

- Providing a defined level of service and measuring performance
- Assessing and managing the condition of all assets and related risks
- Taking a lifecycle approach to developing long term asset management strategies that meet or exceed levels of service within budgets
- Developing a long term financial plan to meet the level of service defined for all assets including what expenditures are required and how they will be financed

5.0 Core Services included in the AM Plan

McDougall is a single tier Municipality in Northern Ontario. The table below shows the core services included in this Plan.

Core Service	Replacement Value
1.0 Leachate Water	\$1,749,861
2.0 Drinking Water	\$10,994,076
3.0 Waste Water	\$641,315 (no auxiliary costs included)
Storm Water	<i>Included with Roads & Bridges</i>
4.0 Roads & Bridges	\$18,414,396
5.0 Fleet & Equipment	\$6,037,519
6.0 Buildings	\$9,785,000

6.0 AM Plan Coverage & Updating Process

This AM Plan covers the next ten years (2014-2024). It is expected to be updated every four years in time for the first Council meeting after election. The Asset Inventory Register is expected to be updated annually as part of the Budget process.

7.0 AM Plan Development

The Municipality had never developed a comprehensive AM Plan. Instead McDougall maintained and renewed assets on an as needed basis. The tangible capital

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asset registry required by PSAB 3150 in 2009 was developed mainly by the Audit Team and needed updating and upgrading to meet AM Plan requirements. McDougall recognized this gap in data and sought out a Municipal Finance Officers Association (M.F.O.A) Intern to develop the AM Plan in conjunction with Management Staff.

7.1 AM Plan Personnel

The AM Plan was a collaborative process for McDougall, it required staff from multiple departments to develop high quality data and strategies. The personnel involved in the creation of the AM Plan are detailed in the table below.

Personnel	Role in AM Plan
Council	<ul style="list-style-type: none">• Set levels of service• Approve the AM Plan• Approve Data Verification Policy and Condition Assessment Policy• Ensure resources and funding are available to support the AM Plan• Approve capital purchases outlined in the AM Plan
C.A.O. & Management	<ul style="list-style-type: none">• Provide strategic advice and leadership in the development of the AM Plan• Ensure community and stakeholders are included in the AM Plan• Assess level of service performance• Review AM Plan
Managers & Staff	<ul style="list-style-type: none">• Develop, maintain and update Asset Inventory Registry• Develop, maintain, update and implement AM Plan• Implement and track AM Plan specified maintenance, renewal, rehabilitation and replacement• Deliver Council approved levels of service

7.2 AM Plan Resources

The Municipality does not have asset management software, nor did it engage any external consultation apart from mandated bridge inspections. The AM Plan was developed entirely in house by Municipal Staff. The major resources involved in the creation of the AM Plan are detailed in the next table.

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Resource Category	Resource
Technical Resources	<ul style="list-style-type: none"> • Microsoft Excel • Microsoft Word • Geographic Information System (G.I.S.) mapping tool • Accounting Software
Internal Resources	<ul style="list-style-type: none"> • Contract Documents • Invoices • Engineering Reports • Past Financial Statements • Past Financial Budgets • PSAB Tangible Capital Asset Registry • Applicable By Laws • McDougall Official Plan • McDougall Drinking Water Quality Management System (D.W.Q.M.S)
External Resources	<ul style="list-style-type: none"> • Consumer Price Index (CPI) • Statistics Canada, 2011 Census • City of Hamilton, State of the Infrastructure Report on Public Works Assets 2009 (Road Network, Waste Water, Water System) • City of Cambridge, AM Plan 2013 • City of Cambridge, State of Infrastructure Life-Cycle Analysis Report 2007 • City of Powell River, AM Plan 2013 (Water Supply, Waste Water, Road Network, Buildings, Fleet & Equipment) • Town of Gananoque, Road Needs Study 2009 • Electric Safety Authority, Guidelines for the Design, Installation, Operation & Maintenance of Street Lighting Assets 2011 • Municipal Act, 2001 Ontario Regulation 239/02 (Highway Maintenance Standards) • Saskatchewan Ministry of Municipal Affairs, Asset Management Condition Grading System • Ontario Good Roads Assoc. (O.R.G.A). Guide for Road and Bridge AM Plan Development • M.F.O.A., How to Develop a Municipal Asset Management Plan

7.3 AM Plan Limitations

McDougall is a geographically large Northern Municipality with a relatively low and seasonal population of 2,604 households. This means a low taxation base and a large number of roads, bridges and waterworks piping to service the area with limited Municipal Staff. The major challenges McDougall faced are included in the table below.

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Challenge	Strategy
No Engineering Department to provide condition assessments and assessment criteria.	McDougall relied on Roads, Water and Building Managers to provide assessments in conjunction with Engineering reports when available.
No Asset Management Department or software.	The Municipality relied on M.F.O.A. Intern to collect and manage data in Microsoft Excel.

8.0 AM Plan Evaluation

The AM Plan will be evaluated by Council.

9.0 AM Plan Improvement & Implementation Plan

This AM Plan is the first of its kind in McDougall and is expected to be refined through further iterations of the AM Plan. The major improvement plans are detailed below.

Item	Expected Implementation
Approve Data Verification & Condition Assessment Policies	March 2014
Equipment, Building & Land AM Plan	January 2014
AM Plan 4 year updating Guide Book	June 2014
Further integration of McDougall assets with G.I.S database with the AM Plan	24 month period
Further G.I.S. mapping of assets	24 month period
Performance Measurement	Continual

10.0 Future demand

The levels of service discussed individually in the six AM Plans outline the performance measures, and targets Council has approved. These identified targets are impacted by service demand increases and decreases. These impacts are explored in the table below.

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Demand Driver	Present Position	Projection	Impact on Services
Population	2,844 people	2006-2011 population increase 4.7%*. Projecting a 4.7% increase 2012-2017.	Small increase in demand for all services.
Housing Density	Majority of residential properties are single dwelling 1,035.	No major (50+) subdivisions or multiple dwellings anticipated.	No major increase in service demand from new major subdivisions or multiple dwellings.
Demographic	60% of residents are permanent, the rest are seasonal. Median age of population 42.2.	No change. Median age increase.	Continued increased demand for services in the summer. Slight reduction in individual household water usage.
Climate Change	Sufficient rainfall to replenish water source lakes. Rainfall contributions to wastewater mains. Rainfall contributions to roadways and buildings.	Slight increase in rainfall. Increase to waste water inflow mains and treatment facilities in summer. Increased rainfall raises probability for flash flooding.	Increased amount of treatable drinking water. Increased strain on waste water intake valves. Increased demand on roadway drainage, and snow removal.
Social Pressure	Unlimited Use. Some concern over building emissions. Some concern over vehicle emissions.	Introduction of residential water meters where Municipal water facilities exist. Introduction of energy reduction policies in buildings. Increased bicycle usage.	Reduction in residential water use and wastewater contributions. Reduction in energy use. Increased demand for bicycle lanes.

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**Statistic Canada Census 2011*

10.1 Asset Demand Management Strategies

Demand for new or increased services will be managed by acquiring new, efficient and effective assets. To ease capital budget constraints, the Municipality will consider alternative financing agreements and options outside asset ownership (e.g. capital leases, contracted services, etc.). Existing service demand will be managed by upgrading and maintaining assets to meet increased demand and reduce the potential for failure. This strategy may also include reducing levels of service and allowing some assets to deteriorate beyond current condition.

10.2 Non Asset Demand Management Strategies include:

- Insuring against risk.
- Educating customers about conservation (home conservation kits).
- Effectively managing risk.
- Looking for opportunities to become more efficient service providers.
- Introducing supply controls (metering, water level signage).