

# 2024 Non-Core Asset Management

Prepared for:

# The Township of East Hawkesbury

This document contains information proprietary to MARMAK. (Marmak). Transmittal, receipt, or possession of this document does not express license, or imply rights to use, sell, design, manufacture, or have manufactured from this information. No reproduction, publication, or disclosure of this information, in whole or in part, electronic or otherwise, shall be made without the prior written authorization from an officer of Marmak. Authorized transfer of this document from the custody and control of MARMAK constitutes a loan for limited purposes, and this document must be returned to MARMAK upon request, and in all events upon completion of the purpose of the loan.

Copyright © 2024 MARMAK.

All Rights Reserved

All trademarks referred to in this document belong to their licensed and/or registered owners

30 Intermodal Drive, Suite 204, Brampton Ontario Tel: (905) 458-6686

Ontario Regulation 588/17
Council Responsibility5
Societal Trends5
Accessibility for Ontarians with Disability Act (AODA)5
Asset Management Components6
Time frames7
Non-Core assets
Data Collection structure
Land Related Assets
Construction pricing
Building Geometry
Data Collection structure
Asset attributes
Asset breakdown
Land Inventory
Municipal owned facilities
Fleet and Equipment15
Lifecycle Activities
Accurate lifecycle17
Asset Condition Information17
Inspections18
Routine inspections
Work orders
Level of Service Overview18
Level of Service (LoS) Policies
The Process19
Financial investment
Level of Service Matrix
Risk
Prioritization Matrix

Probability of Failure (PoF)	
PoF Matrix	
Consequence of Failure (CoF)	
Risk lookup	22
Asset Risk	
Climate change	24
Energy Demands	24
Citizen engagement	
Occupiers liability act	
Patron feedback	25
Incident reporting	
Financial	26
Optimized Asset replacement	
Budget forecasting	
Equipment Utilization	

# **Ontario Regulation 588/17**

## Objectives as defined by the Ontario reg. 588/17

A Township's asset management plan must include for each asset category, the current levels of service being provided, determined in accordance with qualitative descriptions and technical metrics based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan.

For each asset category, a summary of the assets in the category, the replacement cost of the assets in the category, the average age of the assets in the category, determined by assessing the average age of the components of the assets, the information available on the condition of the assets in the category, and a description of the Township's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate.

For each asset category, the lifecycle activities that would need to be undertaken to maintain the current levels of service for each of the 10 years following the year for which the current levels of service are determined and the costs of providing those activities based on an assessment of the following: The full lifecycle of the assets, the options for which lifecycle activities could potentially be undertaken to maintain the current levels of service and the risks associated with the options.

# Phase-in schedule

July 1, 2019: Date for municipalities to have a finalized strategic asset management policy that promotes best practices and links asset management planning with budgeting, operations, maintenance, and other municipal planning activities.

July 1, 2022: Date for municipalities to have an approved asset management plan for core assets (roads, bridges and culverts, water, wastewater, and stormwater management systems) that identifies current levels of service and the cost of maintaining those levels of service.

July 1, 2023: Date for municipalities to have an approved asset management plan for all municipal infrastructure assets that identifies current levels of service and the cost of maintaining those levels of service.

July 1, 2024: Date for municipalities to have an approved asset management plan for all municipal infrastructure assets that builds upon the requirements set out in 2023. This includes an identification of proposed levels of service, what activities will be required to meet proposed levels of service, and a strategy to fund these activities

# **Council Responsibility**

- Member of council play an important role in validating municipal level of service. Not only through the policies that they adopt, the yearly review and the ongoing involvement when levels are adversely affected.
- The frequency of these reviews should be established and followed by staff as part of the Asset Management Policy
- Council must be educated on the asset management strategies which comprise of an accurate inventory, required inspections, lifecycle events, risk mitigations, citizen engagement and financial sustainability.
- Council's responsibility is to provide direction to staff while supporting qualified staff in their decisions.
- Validate and support the amount of time it will take to reach expected Levels of Service

## Societal Trends

- Upcoming Governmental trends
- Changes in society
- Technology changes
- Cyber security
- Environmental sustainability

# Accessibility for Ontarians with Disability Act (AODA)

According to the legislation, the AODA aims to develop, implement and enforce standards related to goods, services, accommodation, employment and buildings before Jan. 1, 2025. The legislation applies to every person in both the public and private sector

The <u>Accessibility for Ontarians with Disabilities Act, 2005</u> (AODA) is intended to reduce and remove barriers for people with disabilities so that Ontario can become more accessible and inclusive for everyone. Collaboration among businesses, organizations, communities and all levels of government is key to reaching this goal.

The O. Reg. 191/11, <u>AODA</u> is the law that sets out a process for developing, implementing and enforcing accessibility standards that government, businesses, non-profits and public sector organizations must follow to become more accessible. These laws and standards are intended to make Ontario open to everyone by helping to reduce and remove barriers.

# Detailed information can be found on the Township website

https://www.easthawkesbury.ca/media/0n4fl4xz/2019-101-accessibility-plan-2020-2025-en.pdf

## **Asset Management Components**

Accurate and detailed asset inventory

- a summary of the assets in the category
- condition of the assets in the category
- the average age of the assets in the category
- condition ratings
- collection of minimum data per asset category
- operations, such as increased maintenance schedules

#### Lifecycle Management

- When to remediate
- What to remediate
- How to remediate
- When to replace rather than remediate
- The options for which lifecycle activities could potentially be undertaken to maintain the current levels of service.
- The lifecycle activities undertaken for the lowest cost to maintain the current levels of service
- Lifecycle management and financial strategy that sets out the following information with respect to the assets in each asset category for the 10-year period.

#### Level of Service

- Establishment and Adoption of Technical Level of service
- Establishment and Adoption of end user Level of service
- Adoption of provincial standards
- Establishment and Adoption of Probability of Failure (PoF)
- Establishment and Adoption of Consequence of Failure (CoF)
- Establishment and Adoption of the risks associated with PoF and CoF

## **Financial Controls**

- An estimate of the annual costs for each of the 10 years of undertaking the lifecycle activities separated into capital expenditures and significant operating costs.
- The replacement cost of the assets in the category
- If based on the funding projected to be available, the Township identifies a funding shortfall for the lifecycle activities
- An identification of the annual funding projected to be available to undertake lifecycle activities and an explanation of the options examined by the Township to maximize the funding projected to be available.

Climate change

- Energy efficiency
- Climate change adaption
- Climate change mitigation

## Citizen Engagement

- Municipal residents and other interested parties to provide input
- Service request associated to location, deficiency type, and actions required. Input deficiency, create work orders, and manage the repairing, the deadlines and follow up comments.

Corporate Policy

- Adoption of risk matrix
- Adoption of financial strategy
- Create multiple scenarios
- Regular update of plan
- Establish an asset replacement policy
- Enact a municipal bylaw

## Fig 1.0



## Time frames

The AM initiative comprises of several updates which are required at specific intervals.

Tasks	Timelines	Description
Update AM plan	biannual	Edit the updated document
Update asset repository	ongoing	Continuously update the inventory repository
Capital plan	yearly	Create annual capital plans establishing a link between capital, operational and corporate strategic plan
Level of Service/financial	yearly	Define individual inspection which culminates with LoS
Financial capabilities	yearly	Link LoS to financial capabilities.
		Integrate tax increases, levy's, user fees
Building Condition Index	5-10 years	Buildings constitute the large part of non-core assets. Request
(BCI)		BCI for buildings and assets

## Non-Core assets

The Township has established the following non-core assets.

- Land
- Buildings
- Fleet

Additionally, over time the Township will based on its capacity choose to expand the list to include,

- Information Technology
- Data Electronic (electronic, paper, documents)
- Purchasing procedures (green compliancy)
- Human Resources (Staffing, recruiting, retention)

The Township will focus on physical non-core assets which includes

• Land

(municipal properties, parks, and trails)

Buildings

(community hall, fire department)

• Fleet / Equipment (Trucks, and associated equipment)

Hierarchy	Category	Subtype
Land (roll number)	administration public works/ Recreation/	<ul> <li>Parking lots</li> <li>Vacant properties</li> <li>Cemeteries</li> <li>Community hall</li> <li>Emergency; fire, ambulance</li> <li>Salt / Storm shed.</li> </ul>
Building	Building structure/Outer shell	<ul> <li>Interior/exterior</li> <li>Roof/shell structure/walls</li> <li>Foundations/footings/slabs</li> </ul>
Inventory	Capital assets within building	<ul> <li>Electrical</li> <li>Mechanical</li> <li>Structural</li> <li>Emergency</li> <li>Miscellaneous</li> <li>•</li> </ul>
Fleet/Equipment	Vehicle	<ul> <li>Heavy duty</li> <li>Medium duty</li> <li>Light duty</li> <li>Recreational</li> <li>Emergency</li> </ul>

## **Data Collection structure**

## Land Related Assets

Collection of land related parcel information includes;

- Total number of parcels
- Parcels connected to municipal infrastructure
- Parcels with emergency access within specified timeframe
- Parcels on maintained roads

#### **Construction pricing**

Square footage construction pricing as of 2022

- Maintenance facilities \$450.00 sq. ft.
- Municipal offices \$375.00 sq. ft.

## **Building Geometry**

Necessary geometry fields associated to each facility

- AODA compliancy
- square footage
- number of floors
- year built
- parking lot
- capacity

Baga okur baki lestryn gilş fanok re			+ Alt Securi	1 6 Ques		0 1
(mag)a	Y Cocijian		T VAR			
AK.	+ Q		a,			
1.823.1	10C				13	1
* (or a.t	1923				18	1
<ul> <li>Approximating</li> </ul>	775				20	1
1 Am	incoler.				100	1
<ul> <li>Networkpath pSub</li> </ul>	i cur	0			28	1
* Scarefalige	salar tela				-00	1
t and	ber				34	1
· Anarchine	107.				13	1
· hiner	edate partia				53	1
<ul> <li>According to the second se</li></ul>	100					1
<ul> <li>NeteolSea</li> </ul>	Inclução.				15	1
* Wesselfkound	to set					1
Charter: Offen	12					1
1 - ogt	11.0					1
<ul> <li>Plate a group of</li> </ul>	nv.				13	1
<ul> <li>Goody</li> </ul>	47674				33	1
+ Akm	sal.					1
* Keter/Beder	inte				200	1

## Data Collection structure

The Township must begin by adopting a standard and establishing the minimum data fields of information to be collected. It is suggested that the Township may wish to review the adoption of the UNIFORMAT standard for collection of building data.

In Ontario, municipalities who are members of "Ontario Recreation Facilities association have access to the RFAM inventory module at no cost as part of their member services. RFAM is built on industry standards through an ecosystem of collaborative municipalities which can share best practices. One such standard is the ASTM UNIFORMAT II level 3

Standard E1557 classification.



Collection of all mandatory fields is



including;

## necessary in order to produce valid reports

Equipment Category: *	Finishes (C)	<ul> <li>Department:</li> </ul>	Select	-	Installation Year:	1
Equipment Type: *	Doors	Space Category: *	Main Entrance	•	Warranty End Date:	1
Equipment Detail:	Door Hardware	* Floor:		•	Proposed Replacement Date:	1
Equipment Item:	Select	• Room #:			Lifespan:	
Name:	Automatic Door Arm #1	Location Serviced:	D		Actual Replacement Date:	t
Asset Relationship:		Map:	Map 9		Usage (Hours):	
D:	Automatic Door Arm_001	TCA:			Capacity (Hours):	
Make:	Ditec	Purchase Price:	1500		Condition: *	Very Good (80-100% Remai
Model:	Auto Swing HA-8	Replacement Cost:	1500		Comments:	
Serial Number:	28473	Quantity:			Status: *	Capital
					Energy Equipment:	-

# Asset breakdown

Asset category	Asset Categories	Asset Attributes
Land	Administration,	Roll Number
	Green space,	
	Public Works	
	Environmental	
Buildings	Envelope	Uniformat II
	Foundations	
	Roof	
Building	Plumbing	Make, model, SN, dates
Inventory	HVAC	
	Electrical	
Fleet	Heavy duty	Make, model, Vin, dates
	Medium duty	
	Light duty	
	Environmental	
Equipment	Recreation,	Make, model, dates
	Emergency,	
	Public Works	
	Environmental	

# Land Inventory – from Balance

ASSET TYPE	ASSET SUB TYPE	ASSET NAME	CLASSIFICATI ON	CLASS TYPE	CIVIC ADDRESS	WARD	CONSTRUCT ION DATE
Land	Buildings and Facilities	MVL_0012 - Shed	Shed	Residential	5167 COUNTY RD 14	St-Eugène	
Land	Municipal Land	ML_0001	Sewage Treatment Plant	Residential / Agricultural	PRINCIPALE ST	Chute-a- Blondeau	
Land	Buildings and Facilities	Community Centre	Community Centre	Commercial	7888 Arthur Lavigne St	Ste-Anne-de- Prescott	1966-04-07
Land	Buildings and Facilities	Municipal Office	City/Town Hall	Municipal	5151 County Road 14	St-Eugène	1985-01-01
Land	Buildings and Facilities	Town Hall	City/Town Hall	Municipal	5151 County Road 14, KOB 1PO	St-Eugène	1985-01-01
Land	Buildings and Facilities	Dome	Salt Shed	Municipal	5151 County Road 14	St-Eugène	2008-01-01
Land	Buildings and Facilities	Firehall #1	Fire Station		4941 St. Paul Street	St-Eugène	1972-01-01
Land	Buildings and Facilities	Skate Park		Leisure	1026 Labrosse Street	St-Eugene	1980-05-05
Land	Buildings and Facilities	Storage Garage	Garage	Industrial	5151 County Road 14	St-Eugène	
Land	Buildings and Facilities	Bathroom		Leisure	1026 Labrosse Street	St-Eugene	2012-05-07
Land	Buildings and Facilities	Storage Building	Shed	Leisure	1026 Labrosse Street	St-Eugene	
Land	Municipal Land	MVL_0005	Town Land	Residential / Agricultural	CONCESSION 9 RD	Ste-Anne-de- Prescott	
Land	Buildings and Facilities	ML_0006 - Shed	Shed	Commercial	870 COUNTY RD 10	St-Eugène	
Land	Municipal Land	MVL_0002	Grass Area	Municipal	CONCESSION RD 3 RD	St-Eugène	
Land	Park (Open Space)	Samuel-Reilley Park	Park	Leisure	1026 Labrosse St.	St-Eugene	
Land	Buildings and Facilities	Pavillion, Outdoor Rink & Change house	Sports Fields	Leisure	1026 Labrosse St.	St-Eugene	
Land	Municipal Land	Community Centre	Town Land	Leisure	7888 ARTHUR LAVIGNE ST	Ste-Anne-de- Prescott	

Land	Municipal	MVL_0003	Grass Area	Municipal	CONCESSION	St-Eugène	
امعط	Land	Outdoor Rink	Coorte Fielde	Loiguro	RD 3	Chute-a-	1990-05-14
Land	Buildings and Facilities	Boards & Floodlighting	Sports Fields	Leisure	1994 Principal Street	Blondeau	1990-05-14
Land	Buildings and Facilities	Playground Equipment			1026 Labrosse Street	St-Eugene	
Land	Buildings and Facilities	ML_0004 - Community Centre	Community Centre	Leisure	2005 PRINCIPALE ST	Chute-a- Blondeau	2010-05-10
Land	Buildings and Facilities	St-Eugene Softball Diamond	Sports Fields	Leisure	1026 Labrosse Street	St-Eugene	
Land	Municipal Land	MVL_0007	Town Land	Commercial	1841 PRINCIPALE ST	Chute-a- Blondeau	
Land	Buildings and Facilities	Shed	Shed	Industrial	5675 County Road 14	St-Eugene	
Land	Municipal Land	City/Town Hall	Town Land	Industrial	5151 County Road 14, KOB 1PO	St-Eugène	
Land	Buildings and Facilities	Changeroom & Storage Building		Leisure	1994 Principal Street	Chute-a- Blondeau	1990-05-07
Land	Park (Open Space)	MVL_0009 - Park	Park	Residential	1026 LABROSSE ST	St-Eugène	
Land	Buildings and Facilities	salt shed	Salt Shed		5151 County Road 14, KOB 1PO	St-Eugène	1985-01-01
Land	Buildings and Facilities	BF_0001	Shed	Commercial	870 COUNTY RD 10	St-Eugène	
Land	Buildings and Facilities	ML_0002 - Fire Station	Fire Station	Residential	1100 DES PINS ST	Chute-a- Blondeau	1995-01-01
Land	Municipal Land	MVL_0001	Grass Area	Residential / Agricultural	CONCESSION 1 RD	Chute-a- Blondeau	
Land	Buildings and Facilities	Storage Building_032		Commercial	1161 Labrosse Street	St-Eugène	
Land	Municipal Land	Storage Building_032	Town Land	Leisure	1161 Labrosse Street	St-Eugène	
Land	Municipal Land	Firehall #1	Town Land	Commercial	4941 ST PAUL ST	St-Eugène	
Land	Municipal Land	MVL_0013 - Treatment Plant	Treatment Plant	Residential	COUNTY 14 RD	Ste-Anne-de- Prescott	
Land	Buildings and Facilities	ML_0008 - Community Hall	Community Centre	Leisure	1161 LABROSSE ST	St-Eugène	

Land	Municipal	MVL 0006	Town Land	Residential /	PETITE	Ste-Anne-de-	
Luna	Land	MIVE_00000		Agricultural	QUATORZE RD	Prescott	
Land	Municipal	MVL 0010 -	Entrance	Residential /	DE L'EGLISE ST	Ste-Anne-de-	
	Land	Entrance	Lintranice	Agricultural		Prescott	
Land	Buildings and Facilities	ML_0005 - Community Centre	Community Centre	Commercial	1123 LABROSSE ST	St-Eugène	
Land	Buildings and Facilities	Storage shed			7888 A. Lavigne Street	Ste-Anne-de- Prescott	1966-01-01
Land	Municipal Land	MVL_0004	Town Land	Industrial	COUNTY RD 14	St-Eugène	
Land	Municipal Land	MVL_0011 - Land	Town Land	Leisure	5040 DE L'EGLISE ST	St-Eugène	
Land	Park (Open Space)	ML_0007 - Park	Park	Municipal	COUNTY 14 RD	Ste-Anne-de- Prescott	
Land	Buildings and Facilities	Splashpad		Leisure	1026 Labrosse Street	St-Eugene	2013-05-13
Land	Municipal Land	MVL_0008	Waterfront Access Point	Residential / Agricultural	FERRY RD	Chute-a- Blondeau	
Land	Park (Open Space)	ML_0003 - Park	Park	Industrial	1994 PRINCIPALE ST	Chute-a- Blondeau	
Land	Buildings and Facilities	storage building_031		Commercial	1161 Labrosse Street	St-Eugène	

# Municipal owned facilities – from RFAM

Asset Name	Asset Class	Asset Purpose	Asset Type	Asset Status
Centre d'Action /	Facility	Ste-Anne-de-Prescott	Recreation	Active
Action Centre				
Chute a Blondeau	Facility	Chute-à-Blondeau	Recreation	Active
<b>Community Centre</b>				
Descente de bateau	Parks	Chute-à-Blondeau		Active
/ Boat Launch -				
Chute a Blondeau				
Fleet	Fleet		Fleet Assets	Active
Hôtel de Ville / Town	Facility	St-Eugène		Active
Hall				
Maintenance Garage	Facility	St-Eugène		On Hand
Municipal Garage	Facility	St-Eugène		Active
Parc Chute-à-	Parks	Chute-à-Blondeau		Active
Blondeau/Park				
(Augustin Larocque)				
Parc de Samuel	Parks	St-Eugène		Active
<b>Reilley Park of St-</b>				
Eugene				
Parc de Ste-Anne-de-	Parks	Ste-Anne-de-Prescott		Active
Prescott /Park - St				
Anne				
Recycling Garage	Facility	St-Eugène		Active
Rink	Facility			Active
Salt Dome	Facility	St-Eugène		Active
Septic Field (St-	Facility	St-Eugène		Active
Eugène)				
Septic Field (Ste-	Facility	Ste-Anne-de-Prescott		Active
Anne-de-Prescott)				
Services Pompiers /	Facility	Chute-à-Blondeau		On Hand
Fire Station				
Services Pompiers /	Facility	Chute-à-Blondeau		Active
Fire Station (Chute-à-				
Blondeau) Services Pompiers /		Ch Euroàna		Active
Fire Station (St-	Facility	St-Eugène		Active
Eugène)				
St-Eugene	Facility	St-Eugène		On Hand
Community centre	ruenity	Steugene		Un nana
St-Eugene	Facility	St-Eugène		Active
Community Hall /				
Salle communautaire				
St-Eugène				
Storage Shed	Facility	St-Eugène		Active
Wastewater	Facility	Chute-à-Blondeau		Active
Treatment Centre	,			
	1	1	1	

ASSET NAME	CLASSIFICATION	LIFE EXPECTANCY	PURCHASE DATE	REPLACEMENT YEAR	CONDITION
One way plow 2016	Attachments	20	2016-04-01	2036	
Mower	Mowers	5	2013-08-01	2018	
Communication System	Attachments	20	1989-02-01	2009	
One way plow	Attachments	20	1988-02-01	2008	
Water tank	Attachments	20	1989-07-01	2009	
Snow wing	Attachments	20	2004-07-01	2024	
Diesel washer pressure	Attachments	20	2015-09-01	2035	
Chipper	Attachments	20	2000-06-01	2020	
Freightliner MM106042S	Heavy-Duty Vehicle	18	2020-01-01	2038	GOOD (2)
Tandem Trailer	Trailers	20	2017-01-01	2037	FAIR (3)
Mr Compliance software	Attachments	20	2022-04-01	2042	EXCELLENT (1)
#3 International plow	Heavy-Duty Vehicle	18	1990-01-01	2008	FAIR (3)
Freightliner	Heavy-Duty Vehicle	18	2018-01-01	2036	EXCELLENT (1)
Chevrolet K2500 Pick up	Medium-Duty Vehicle	8	2017-01-01	2025	GOOD (2)
#6 Grader	Graders	20	2009-10-01	2029	FAIR (3)
Workhourse P31 Rescue Vehicle	Heavy-Duty Vehicle	18	2001-01-01	2019	POOR (4)
Western Star clip and fenders	Attachments	20	2023-11-17	2043	EXCELLENT (1)
Snow pusher	Attachments	20	2004-04-01	2024	
Compressor	Attachments	20	1987-04-01	2007	
Utility Trailer	Trailers	20	2005-01-01	2025	GOOD (2)
Salt box for pickup	Attachments	20	2023-10-20	2043	EXCELLENT (1)
Case Loader Backhoe 2015	Loaders / Backhoes	20	2015-06-01	2035	
Freightliner Labrie	Heavy-Duty Vehicle	18	2022-01-01	2040	EXCELLENT (1)
Freightliner Pumper Tanker	Heavy-Duty Vehicle	18	2016-01-01	2034	FAIR (3)
Reversible plow (2012)	Attachments	20	2012-11-01	2032	
#12 Freightliner 2020	Heavy-Duty Vehicle	18	2020-02-19	2038	EXCELLENT (1)
Snow blower	Attachments	20	2023-09-22	2043	EXCELLENT (1)
#4 Freightliner 114SDr	Heavy-Duty Vehicle	18	2016-01-01	2034	POOR (4)

#2 Sterling	Heavy-Duty	18	2005-01-01	2023	GOOD (2)
Tandem	Vehicle	10	2005 01 01	2023	0000(2)
Massey Ferguson	Tractors	20	1974-01-01	1994	
Tractor	11000015	20	107 1 01 01		
Western	Heavy-Duty	18	2023-11-17	2041	EXCELLENT (1)
Star_529	Vehicle				
Chevrolet	Medium-Duty	8	2022-01-01	2030	EXCELLENT (1)
Silverado 2500	Vehicle				
One way plow	Attachments	20	1992-11-01	2012	
One way plow	Attachments	20	2004-07-01	2024	
One way plow	Attachments	20	1989-01-01	2009	
Tracteur Case	Tractors	20	2023-12-05	2043	GOOD (2)
Freightliner MM112064S	Heavy-Duty Vehicle	18	2012-01-01	2030	FAIR (3)
GMC Sierra	Medium-Duty Vehicle	8	2011-01-01	2019	FAIR (3)
One way plow (2012)	Attachments	20	2012-11-01	2032	
Ford Ranger Supercab	Medium-Duty Vehicle	8	2021-01-01	2029	EXCELLENT (1)
Blade for pickup	Attachments	20	2023-10-20	2043	EXCELLENT (1)
Sidewalk Tractor	Medium-Duty Vehicle	8	2021-10-01	2029	
One reversible plow & wing truck 4	Attachments	20	2015-07-01	2035	
GMC Pumper / Tanker	Heavy-Duty Vehicle	18	1999-01-01	2017	POOR (4)
Rear-blade scrapper	Attachments	20	2017-03-01	2037	
Spreader	Attachments	20	1992-01-01	2012	
2022 Kubota 54 inches mower	Mowers	5	2022-05-01	2027	EXCELLENT (1)
Case 4WD tractor	Loaders / Backhoes	20	1991-08-01	2011	
One way plow	Attachments	20	2007-02-01	2027	
Freightliner	Heavy-Duty Vehicle	18	2022-07-08	2040	EXCELLENT (1)

# **Lifecycle Activities**

Asset lifecycle activities consist of the following components.

Rehab	lifecycle events which may extend the life of the asset
Replace	activities once the asset has reach its end of life
Disposal	accounting and engineering activities which may have ongoing activities
Climate Change	Impact and access to renewable technologies

## Accurate lifecycle

Accurate lifecycle for each asset category is fundamental to establishing proper AM plan. Each lifecycle event is directly attributed to the proper inventory data collection. Each building comprises of various asset categories. Each asset category has a defined life expectancy. Each life expectancy is further defined by the amount of usage. The amount of usage is directly proportional to the efficiency of the unit and overall building.

Category	Life Expectancy (years)	Usage /Consumption
Land		
Parks	50	Remaining useful life
Parking lots	25	Remaining useful life
Cemeteries	50	Remaining useful life
Building		
Structural	50	Remaining useful life
Shell	40	Remaining useful life
Electrical	15	Condition rating / Run Hours
Mechanical	20	Condition rating / Run Hours
Inventory	10-20	Condition rating / Run Hours
Fleet / Equipment		
Emergency services	20	Condition rating / Run Hours/ Km
Public Works	20	Condition rating / Run Hours/ Km
Recreation	20	Condition rating / Run Hours/ Km

## Asset Condition Information

Category	Current Condition rating	Optimal condition rating
Land	Estimated remaining useful life	Estimated remaining useful life
Buildings	Estimated remaining useful life	BCI
Inventory	Estimated remaining useful life	Condition rating
Fleet /Equipment	Estimated remaining useful life	Inspections

## Inspections

The Township has taken a proactive approach to measuring LoS, by adopting the ORFA's RFAM solution and cataloging each piece of inventory as well as the associated inspections. The Township should create Inspections which will be classified as Predictive, Preventative and Reactive. These typical Inspections are categorized as regulatory, mandatory, health and safety and occurs daily, weekly, quarterly and annually. Sample of these inspections are;

Fleet	MTO inspections, Fire truck inspections
Building	subject to internal building inspections including fire suppression and extinguishers
Land	staff inspection, CSA, play structures
Inventory	subject to regulatory Inspections
Emergency	Personal Preventative Equipment sent to manufacturer

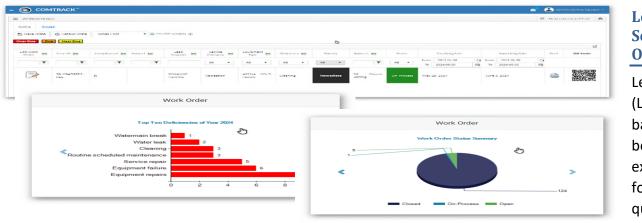
#### Routine inspections

As an integral part of level of service, the Township should consider to electronically collect and manage inspections to both facilities and individual assets. The Township will overtime increase and customize the inspection which will translate to proposed level of service and the Township's ability to financially afford the established levels of service.

						Bac
Current Inspections	Past Inspections Upcoming Inspections					
Drag a column heade	r here to group by that column			+ On Demand	Q Search	۲
	T Inspection Name	T Asset Name	Inspector			
Q.	Q weekly	(AII)	• (All)			
Inspect 🕲	Weekly Air Compressor Check_4	Public Works Garage	2			
Inspect 🖲	Weekly Air Compressor Check_3	Public Works Garage				
Inspect 🛞	Weekly Air Compressor Check_2	Public Works Garage				
Inspect ()	Weekly Air Compressor Check_1	Public Works Garage				

## Work orders

The Township should consider adopting an electronic work order system. Failed inspection lead to the creation of work orders. Work orders status can be monitored to validate established LoS.



# Level of Service Overview

Level of Service (LoS) is a balance between user expectations for overall quality, performance,

availability, and safety versus affordability.

LoS requires asset category, performance measurement, a current measurement, a target measurement, an achievement date, an approximate cost, and a priority assigned to each performance measurement.

AMPs typically comprise of theoretical models which need to be vetted against operational models concluding with practical realities. LoS can be considered the practical component of an AMP. Operational and practical data is used to establish and validate LoS which in turn will feed into the financial component. This closed-loop approach will either validate the AMP or indicate required changes to the financial strategy. LoS is a key driver which influences asset management decisions, and depending on asset type can be either condition or age based.

LoS outlines the overall quality, performance, availability and safety of the service being provided. LoS contains a number of distinct categories:

- Service Identification
- Financial
- Municipal risk
- Community Expectations
- Technical component
- Strategic component

# Level of Service (LoS) Policies

The core purpose of a Township is to provide services to residents and other stakeholders. Physical assets are simply a portion of what is required to deliver the various LoS as determined by the Township. The Township needs to ensure that the infrastructure performs to meet the level of service goals at an affordable and sustainable cost. An objective of LoS analysis is to find a balance between the expected levels of service and the cost of providing that LoS. Determining municipal LoS policies requires first developing a baseline for acceptable and affordable levels of service. This is done by first examining present-day service levels, community needs, regulatory or legal obligations and the cost-of-service delivery. Once present-day service levels have been examined, this baseline can be compared against LoS expectations.

## The Process

## Levels of Service analysis may involve:

- 1. Developing
  - Customer vs. Technical Levels of Service
  - Current vs. Expected Levels of Service
  - Use of performance measures
  - Financial validation
- 2. Communication
  - Receive input from staff
  - Receive input from citizens
  - Communicate the Levels of Service to stakeholders
  - Council approval of Levels of Service strategies
- 3. Update
  - Updating the Levels of Service Analysis on a yearly basis

# Financial investment

The management of physical assets, their **selection, maintenance, inspection and renewal** play a key role in determining the operational performance and viability of organizations that operate assets as part of their core business. Operational data is used to establish and validate LoS which in turn will feed into the financial component. This closed-loop approach will either validate the LoS strategies or indicates required changes to the financial strategy.

## Level of Service Matrix

Determining the desired levels of service for asset is achieved with consideration of a number of factors including costs, user expectations and government mandated and minimum requirements. LOS outlines the overall quality, performance, availability, and safety associated to municipal assets and services. Each asset category can have its own Key Performance Indicator, current measurements, target measurements, achievement date, approximate costs associated to each component and a priority listing based on staff and council consensus.

There are three (3) distinct categories of LoS:

- Municipal risk
- Asset life cycle cost implications
- Financial options

LoS outlines the overall quality, performance, availability and safety of the service being provided. Technical levels of Service (TLS) outline the operating, maintenance, rehabilitation, and renewal strategies.

TLS outline the operating, maintenance, rehabilitation, renewal and upgrade activities expected to occur. TLS must be considered that also look at the risk associated with providing the service. Proposed targets for customer and technical levels of service must be included as part of the asset management strategy. Performance measures should be developed, and the actual results achieved reported and updated annually.

The target levels of service must be reviewed on a regular basis to determine if they are appropriate and achievable. Consideration should be given to risk and cost in the development of target levels of service. All assets carry a level of risk for their users. Generally, when conducting risk assessment, two key factors that come into consideration are frequency of use and cost of improvement. Acceptable levels of risk may vary depending on their frequency of use.

Asset category	LEVEL OF SERVICE	Compliancy
land	landscape maintenance	
	Landfill monitor report	
Buildings	Safe buildings	Building Inspections
	Meet legislative requirements	AODA Compliant
	Emergency accessibility	Distance from fire hall
	Building Condition Index (BCI)	UNIFORMAT II
		STANDARD
	Inventory	TSSA, CSA

	Energy Efficiency	O.Reg. 507/18 broader public Sector energy reporting
Fleet/Equipment	Routine inspections	MTO regulations
	Routine maintenance	

Asset category	LEVEL OF SERVICE	Tracking Methodology
land	landscape	
	Maintenance	
Buildings	Foundation	BCI
	Structure	BCI
	Roof	BCI
	Safety	RFAM Inspections
	Electrical	RFAM Inspections
	HVAC	RFAM Inspections
	Plumbing	<b>RFAM Inspections</b>
Fleet/Equipment	Routine	<b>RFAM Inspections</b>
	Maintenance	

# Risk

# **Prioritization Matrix**

Assigning a base line value from 10 – 100 for each municipal asset category will enable to prioritize and compare various asset categories.

# Probability of Failure (PoF)

Not all assets deteriorate at the same level. In some cases, the deterioration may be quantitative as 2 Building Condition Index (BCI) per year while others may be based on asset longevity. As the assets deteriorate the probability of failure increases. PoF for an asset category requires a combination of attributes including baseline weight, material, classification, condition rating and useful life. These values are normalized to a value from 1-5. The condition rating and useful life are matched against a desired level of service for a visual representation. The results including percentage weight, produce a PoF rating from 1-5

## PoF Matrix

PoF	Rating	Remaining useful life	Condition Index
1	Very Good	0-10% of UL	90 - 100
2	Good	11-30 % of UL	75 - 89
3	Fair	31-50 % of UL	50 - 74
4	Poor	51-65 % of UL	35 - 50
5	Very Poor	66 > % of UL	<34

## Consequence of Failure (CoF)

Not all assets pose the same Consequence of Failure level. Even within the same category various pieces of equipment pose different risk or consequence of failure. CoF can be derived for each asset category from the calculation of an asset category baseline weight, and 5 criteria including; safety, operational, environment, finance, and legal.

## Risk lookup

**Environmental conditions**; Values from 1-5 with associated description and details outlining the severity of the consequence associated to the environment

**Financial conditions**; Values from 1-5 with associated description and details outlining the severity of the consequence associated to the financial

**Health and safety conditions**; Values from 1-5 with associated description and details outlining the severity of the consequence associated to the health and safety

**Legal**; Values from 1-5 with associated description and details outlining the severity of the consequence associated to the Legal

**Operational conditions**; Values from 1-5 with associated description and details outlining the severity of the consequence associated to the Operational

Category	Туре	Data Confidence	PoF	CoF	RISK
Land	Municipal owned land	Fair	1	1	low
Buildings	Envelopes, Roof, foundations	Fair	2	3	Medium
Inventory	A collection of all capitalized inventory	Fair	2	2	Medium
fleet	Vehicles	Fair	2	3	Medium
Equipment	Various machinery	Fair	2	2	Medium

## **Climate change**

## **Energy Demands**

The Township should begin collecting energy consumption as part of future AM requirements.

- Meter each individual building
- Identify inventory assets which consume energy
- Collect water usage by building and associated various assets

O.Reg. 507/18 broader public Sector energy reporting and conservation and demand management plans include the summary for a year must include the following information for each of the public agency's prescribed operations:

- 1. The name of the building or facility.
- 2. The address of the building or facility.
- 3. The total floor area of the indoor space of the building or facility.
- 4. The type of the building or facility.
- 5. A description of the days and hours in the year during which the building or facility is operated and, if the building or facility is operated on a seasonal basis, the period or periods during the year when it is operated.
- 7. The total amount of each type of energy that was consumed in the year to operate the building or facility and that was purchased by the public agency, regardless of when it was purchased.

The Township has posted its energy plan on its website

https://www.easthawkesbury.ca/media/rmrfli2q/2019-68-energy-management-plan-2020-2025.pdf

## **Citizen engagement**

The Township has made citizen engagement a priority. It has adopted innovative technologies to collect and analyze citizen satisfaction. The Township is measuring 5 key indicators including, operational, security, amenities, professionalism, accessibility

The Township's website offers a number of ways to stay informed about what are the Corporation of the Township of McGarry's programs and services; who to contact at the Municipal office to obtain those services; when Council is meeting, what are they discussing and what were Council's past meeting results.

## Occupiers liability act

The Township may wish to review its property that premises are reasonably free of hazards. are reasonably safe, and establish and maintain care"

# Occupiers' Liability Act Legislation for Premises Liability •

- This important legislation compels the Occupier, often the owner of the property (but not always!), to keep their premises reasonably free of hazards.
- Entrants to the property should expect a reasonably safe premises.
- Creates an important "standard of care."

assets to ensure That entrants a "standard of

## Patron feedback

The same QR code technology used for inventory can within the Township facilities to gather pertinent user



be implemented satisfaction.

## Incident reporting

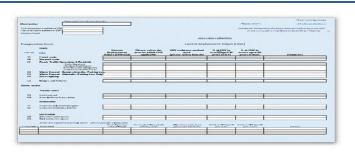
From both a liability and LoS perspective, the Township may electronically collect and manage incident occurrences with owned properties.



wish to begin to municipal

## **Financial**

Application for any OCIF funding, the required to provide Current Replacement possible the Township may wish to record replacement value on a per inventory

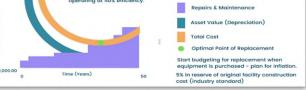


Township is Value. Where current record basis.

# **Optimized Asset replacement**

The Township may wish to begin to collect the financial investment for each asset, and establish a policy to determine cost remediation versus cost replacement

# Stat 3 years of asset lifecycle, operating at 50% efficiency.



# **Budget forecasting**

Through the collection of proper inventory and data fields the Township can begin the process 50 years dynamic capital plan



appropriate of creating 10 -

# **Equipment Utilization**

The Township may wish to adopt an equipment Utilization index strategy to more accurately define assets which require immediate attention. This approach will indicate which similar assets have a shorter lifespan as a result of their daily usage, and thereby provide a more accurate replacement and lifecycle date.

VERITLO	N + 0 to 20%	LOW -21 to 4	15	MODERATE - 41 to 60%		HGH-61 to80	5	VER/HOX 81	to 100+15
ASSETNAME	EQUIPMENT DETAL	EQUIPMENT NAME	RSK	CONDITION	LIFESPAN	RUNTIMES	NVESTVENTS (Lifespan)	IN ESTHENTS (RUNTINE Sj	Ð
Public Works Garage	Commercial Equipment (E1010)	Welder	Not Defined	Fair (40-60% Remaining)	1348833%	0.0%	000%	0.0%	13450.33%
Public Works Garage	Commercial Equipment (E1010)	Pessure Washer	Not Defined	Poor (20-40% Remaining)	1349333%	0.00%	000%	0.0%	13450.33%
Public Works Garage	Fuel Distribution (G3060)	Diesel Tank	Not Defined	Good (60-80% Remaining)	10120.00%	0.00%	000%	0.00%	10120.00%