CW-22-17

ASSET MANAGEMENT PLAN

Report to Committee of the Whole

April 3, 2017

BACKGROUND

2013

- Asset Management Project Update (CSI-22-13)
- Asset Management Financing Plan (F-39-13)

2015

- Asset Management Update (CW-20-15)

2016

- Asset Management Policy
- Asset Management Plan

ASSET MANAGEMENT– KEY PRINCIPLES

Asset: an item that has value, or potential value to an organization

Asset Management: the coordinated activities and practices of an organization to realize value from assets

Why do we do it?

- To make the best possible (long-term) decisions about our assets
- To manage risk
- To provide satisfactory levels of service
- To optimize life-cycle costs

Burlington

PLAN OVERVIEW

An Asset Management Plan….
➢ Aligns to our corporate strategic goals
➢ Meets Provincial legislative requirements
➢ Describes *how* we manage our tangible assets
➢ Reports on the current state of our infrastructure (ICR+Need)
➢ Acts as a tool for infrastructure planning
➢ Helps guide Capital Budget & Forecast and Asset Management Funding Plan decision-making

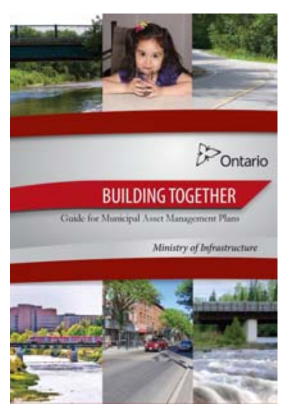
Burlington

PLAN OVERVIEW

An Asset Management Plan does not….
➢ Describe how we are going to carry out Asset Management
➢ Report on human assets or act as a resourcing plan
➢ Outline roles and responsibilities
➢ Consider the City's intangible assets or appreciating assets
➢ Provide a funding strategy to address our long-term needs

PLAN FRAMEWORK & METHODOLOGY

- Provincial Guide: *Building Together Guide for Municipal Asset Management Plans*
- Plan Sections:
  1. Executive Summary
  2. Introduction
  3. State of the Local Infrastructure
  4. Levels of Service
  5. Asset Management Strategy
  6. Financial Section
  7. Continuous Improvement and Monitoring



PLAN FRAMEWORK & METHODOLOGY

- Informing the AMP
- Workshop and interviews with asset leads and support staff
- Detailed questionnaires
- Data mining --- LOTS OF IT!!!
- Technical writer
- Core sub-group from the Asset Management Team

Burlington

STATE OF THE LOCAL INFRASTRUCTURE (SOTLI)

- Key requirement of all AMPs
- ICR and Current Need
- ICR = Inventory, Condition, Replacement Cost
  - What do we own? What condition is it in? How much does it cost?
- Current Need – long-term (60-year) analysis
  - ETC (Event, Timing, Cost)
  - What Treatment? When? How much will it cost?
- Assumptions
  - Discrete Inventories
  - Formal Condition vs. Age Based
  - Replacement cost based on 3 year historic costs + soft costs

Burlington

SOTLI - INVENTORY

Question:
How much do we own?

CATEGORY	# OF ASSETS
Facilities and Buildings	109 buildings
Roadways - Pavement	1,614 paved km
Roadways - Bridges & Large Culverts	47 bridges
	93 large culverts
Roadways - Storm Sewer Network	757 km pipe
	26,803 structures
Roadways - Walls (Retaining & Noise)	252 walls
Roadways - Parking, Traffic Control and Safety	156 parking lots
	36,988 signs and posts
	26,427 streetlights and plant
	120 traffic signals
	231 transit shelters and pads
	22.5 km guiderails
Parks and Land Improvements	5,052 individual assets
	136 km linear assets
Fleet - Vehicles & Equipment	255 vehicles
	780 equipment
Storm Water Management	26 ponds
	108 km linear creek assets
IT Services - Hardware	2,190 assets
IT Services - Software	123 systems

Source data systems:

- GIS
- Excel
- VFA
- Avantis

SOTLI - CONDITION

- Formal Assessments Vs. Age-Based
- Standardized Condition Grade system
- Overall Average Condition is "**GOOD**"

Table XX – Asset Condition Grade System
Fleet & Equipment

Condition Grade	% of Useful Life Remaining
Very Good	76% to 100%
Good	51% to 75%
Fair	26% to 50%
Poor	0% to 25%
Very Poor	Less than 0%

CATEGORY	AVERAGE CONDITION GRADE
Facilities and Buildings	FAIR
Roadways - Pavement	GOOD
Roadways - Bridges & Large Culverts	GOOD
Roadways - Storm Sewer Network	GOOD
Roadways - Pedestrian Network	FAIR
Roadways - Walls (Retaining & Noise)	FAIR
Roadways - Parking, Traffic Control and Safety	FAIR
Parks and Land Improvements	GOOD
Fleet - Vehicles & Equipment	GOOD
Storm Water Management	GOOD
IT Services - Hardware & Software	GOOD

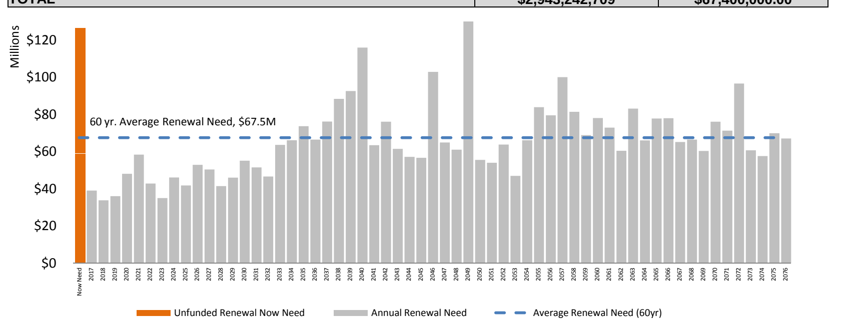
SOTLI – REPLACEMENT VALUE

- What is it all worth?
- Total Replacement cost over **$ 2.9 BILLION** ***(+15% from 2013 estimate)***

CATEGORY	AVERAGE CONDITION GRADE	EST. REPLACEMENT VALUE
Facilities and Buildings	FAIR	$547,696,300
Roadways - Pavement	GOOD	$2,013,335,791
Roadways - Bridges & Large Culverts	GOOD	
Roadways - Storm Sewer Network	GOOD	
Roadways - Pedestrian Network	FAIR	
Roadways - Walls (Retaining & Noise)	FAIR	
Roadways - Parking, Traffic Control and Safety	FAIR	
Parks and Land Improvements	GOOD	$200,306,630
Fleet - Vehicles & Equipment	GOOD	$70,598,338
Storm Water Management	GOOD	$66,573,650
IT Services - Hardware & Software	GOOD	$44,732,000
TOTAL		**$2,943,242,709**

SOTLI – CURRENT NEED

CATEGORY	AVERAGE CONDITION GRADE	EST. REPLACEMENT VALUE	AVG. ANNUAL NEED (60-YR.)
Facilities and Buildings	FAIR	$547,696,300	$8,900,000.00
Roadways - Pavement	GOOD	$2,013,335,791	$42,700,000.00
Roadways - Bridges & Large Culverts	GOOD		
Roadways - Storm Sewer Network	GOOD		
Roadways - Pedestrian Network	FAIR		
Roadways - Walls (Retaining & Noise)	FAIR		
Roadways - Parking, Traffic Control and Safety	FAIR		
Parks and Land Improvements	GOOD	$200,306,630	$5,600,000.00
Fleet - Vehicles & Equipment	GOOD	$70,598,338	$6,600,000.00
Storm Water Management	GOOD	$66,573,650	$1,200,000.00
IT Services - Hardware & Software	GOOD	$44,732,000	$2,400,000.00
TOTAL		**$2,943,242,709**	**$67,400,000.00**



LEVELS OF SERVICE (LOS)

- Focus on maintaining current levels of service based on *similar function* and *equivalent utility ("like-for-like")*
- Optimized investment strategy (Value Based Level of Service)
- Longest life at lowest cost

LEVELS OF SERVICE (LOS)

- In future – need to collect data through community engagement to set and measure alternative LOS targets

Level of Service

Technical LOS

Community LOS

Quality

Function

Utilization

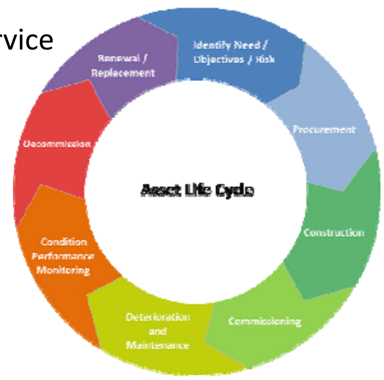
Basic Asset Management

Advanced Asset Management

We are here

ASSET MANAGEMENT STRATEGY

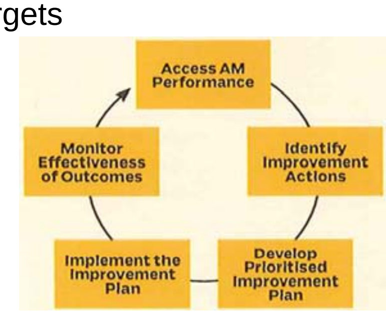
- Asset category-specific approaches to managing assets
- Areas of focus:
  - Maintain or improve levels of service
  - Lifecycle management
  - Risk
  - Coordination with other renewal
  - Approach to options
  - Future demand



Burlington

CONTINUOUS IMPROVEMENT INITIATIVES & NEXT STEPS

- Detailed improvement plan
- Short , medium & long term targets
- Plan updates
  - – Data inventories (annual)
  - – Comprehensive (every 5 years)



<u>Next Steps:</u>

Financing Plan Update – BLT (April 5th)

Financing Plan Update Report – COW (May 1st)

Burlington

ACKNOWLEDGEMENTS

- Asset Management Team
- Sub-Group of AMT (Plan Writers)
- Asset Category Leads and Support Staff throughout the Organization