



Hamilton

ASSET MANAGEMENT PLANS

General Issues Committee

June 19, 2024

- Ontario Regulation 588/17
- Non-Core AM Plans – Findings
- Core and Non-Core Funding Gap
- Continuous Improvement
- Natural Assets
- Next Steps



O. Reg. 588/17:
Asset Management
Planning for
Municipal Infrastructure

Recommendation

- To approve the Asset Management Plans as attached to Recommendation Report PW23073(b) (Appendices “A”, “B”, “C”, “D”, “E”, “F”, “G”, “H”, “I”, “J”, “K”, “L”, “M” and “N”)

Ontario Regulation 588/17 Mandates

Asset Management Policy PW19053



2019

Asset Management Plan: Non-Core Assets

- All remaining assets
- Current LOS with cost to maintain

PW23073



PW23073(a)



Ongoing annual review and updating of all AM Plans



JULY 1, 2022



JULY 1, 2024



JULY 1, 2025



Asset Management Plan: Core Assets PW22048

- Transportation
 - (Roads, Engineered Structures)
- Water Works
 - (Water, Wastewater, Stormwater)
- Current LOS with cost to maintain.

Proposed LOS and Financial Strategy Completed

LOS – Levels of Service

ASSET CATEGORY	REPLACEMENT VALUE	AVERAGE AGE (YEARS)	AVERAGE CONDITION	RENEWAL FUNDING RATIO	10-YEAR O&M & RENEWAL FUNDING RATIO	FUNDING GAP PER YEAR (M)	FUNDING GAP OVER 10 YEARS
Animal Services, Licensing and Municipal Law Enforcement	\$9.4M	26 Years (43%)	4-POOR	80%	94%	\$1.2M	\$12.0M
Data Confidence	Medium	High	High	Low	Low	Low	Low
Cemeteries	\$29.5M	33 years (31%)	3-FAIR	29%	86%	\$1.0M	\$10.0M
Data Confidence	Low	Low	Low	Low	Low	Low	Low
Children's and Community Services	\$10.6M	99 years (68%)	3-GOOD	76%	100%	\$0.1M	\$1.3M
Data Confidence	Medium	High	Medium	Medium	Medium	Medium	Medium
CityHousing Hamilton	\$2.95B	40 years (46%)	3-FAIR	7%	56%	\$63.0M	\$630.0M
Data Confidence	Medium	Medium	Medium	Medium	Low	Low	Low

ASSET CATEGORY	REPLACEMENT VALUE	AVERAGE AGE (YEARS)	AVERAGE CONDITION	RENEWAL FUNDING RATIO	10-YEAR O&M & RENEWAL FUNDING RATIO	FUNDING GAP PER YEAR (M)	FUNDING GAP OVER 10 YEARS
* Corporate Asset Management (Fleet and EAM)	\$87.4M	26 years (39%)	4-POOR	55%	87%	\$2.5M	\$25.4M
Data Confidence	Medium	Medium	Medium	Low	Low	Low	Low
* Corporate Facilities and Energy Management	\$912.7M	39 years (18%)	2-GOOD	42%	84%	\$4.6M	\$46.0M
Data Confidence	Medium	High	Medium	Medium	Medium	Medium	Medium
Forestry and Horticulture	\$390.0M	26 years (48%)	2-GOOD	95%	91%	\$0.17M	\$1.7M
Data Confidence	Low	High	Low	Low	Medium	Low	Low
* Information Technology	\$25.2M	7 Years (16%)	3-FAIR	59%	92%	\$2.0M	\$19.6M
Data Confidence	Medium	Medium	Low	Low	Medium	Medium	Medium
Long-Term Care	\$319.0M	24 years (51%)	2-GOOD	98%	97%	\$2.5M	\$24.7M
Data Confidence	Medium	High	High	Medium	Medium	Medium	Medium

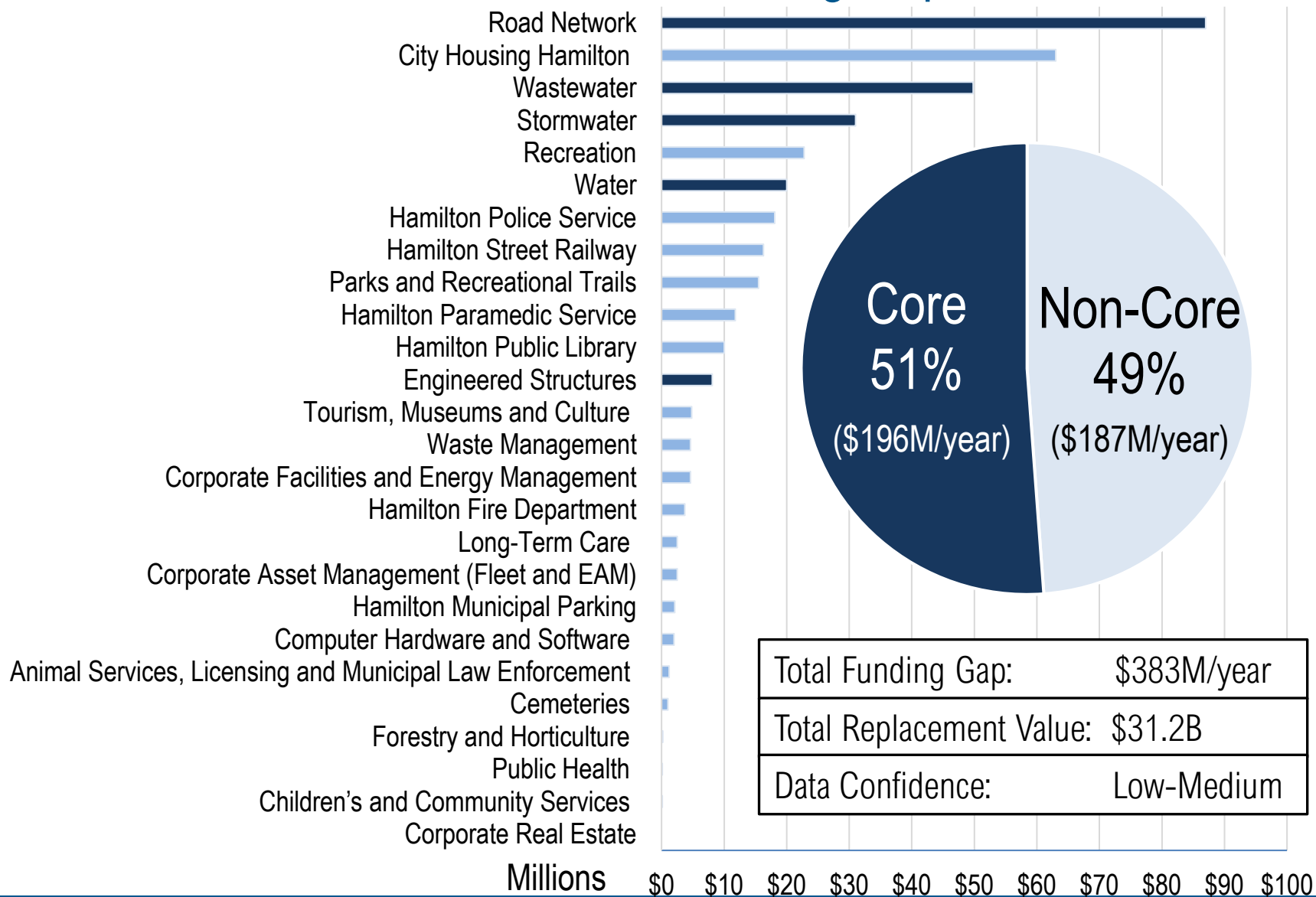
* These service areas are both Asset Owners and internal service providers across the City. The Asset Management Plans for these areas include only the assets needed to deliver their respective services.⁵

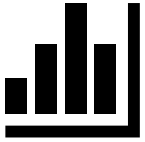
ASSET CATEGORY	REPLACEMENT VALUE	AVERAGE AGE (YEARS)	AVERAGE CONDITION	RENEWAL FUNDING RATIO	10-YEAR O&M & RENEWAL FUNDING RATIO	FUNDING GAP PER YEAR (M)	FUNDING GAP OVER 10 YEARS	
Parks and Recreational Trails	\$643.2M	28 years (45%)	3-FAIR	35%	71%	\$15.5M	\$155.0M	
Data Confidence	Medium	Low	Low	Low	Low	Low	Low	
Public Health	\$3.4M	5 years (36%)	3-FAIR	67%	100%	\$0.1M	\$1.3M	
Data Confidence	Low	High	Medium	Low	Medium	Medium	Medium	
Recreation	\$1.57B	39 years (49%)	3-FAIR	94%	74%	\$22.9M	\$229.0M	
Data Confidence	Medium	Medium	Medium	Low	Low	Low	Low	
Tourism, Museums and Culture	\$446.3M	147 years	2-GOOD	92%	76%	\$4.8M	\$48.0M	
Data Confidence	Low	High	Medium	High	Medium	Medium	Medium	
TOTAL	\$7.4B					\$120.4M	\$1.2B	
Funding Gap \$120.4 annually (data confidence low-med)								

Summary of Findings – Core and Non-Core

Report Number	ASSET MANAGEMENT PLANS	REPLACEMENT VALUE (B)	FUNDING GAP PER YEAR (M)	FUNDING GAP OVER 10 YEARS
Core Assets June 2022 - PW22048	Water Wastewater Stormwater Roads Engineered Structures	\$21.3	\$195.9	\$1.96B
Non-Core Assets December 2023 – PW23073	Waste Management Hamilton Police Service Parking	\$1.04	\$24.8	\$248M
Non-Core Assets April 2024 – PW23073(a)	Hamilton Street Railway (HSR) Hamilton Fire Department Hamilton Paramedic Service Corporate Real Estate Office Hamilton Public Library	\$1.26	\$41.8	\$418M
Non-Core Assets June 2024 - PW23073(b)	Animal Services, Licensing and Municipal Law Enforcement Hamilton Municipal Cemeteries Children's and Community Services CityHousing Hamilton Corporate Asset Management (Fleet, EAM) Corporate Facilities and Energy Management Forestry and Horticulture Information Technology Long-Term Care Natural Assets Parks and Recreational Trails Public Health Recreation Tourism, Museums and Culture	\$7.4	\$120.4	\$1.20B
Unallocated Assets	To Be Determined	\$0.2	To be Determined	To Be Determined
DATA CONFIDENCE		Low-Medium	Low-Medium	Low-Medium
TOTAL		\$31.2	\$383	\$3.83B

Annual Funding Gap – Core and Non-Core





Data

- Asset Registry data missing, old or incomplete,
- Lack of Condition Assessments,
- Challenges to maintain accurate replacement values.



Lifecycle Management

- Not all lifecycle activities for assets are defined or optimized,
- The impact of acquired assets on O&M activities and the timing of renewals requires more analysis.



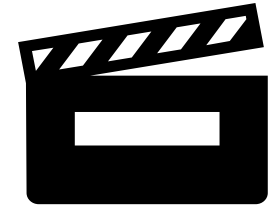
Levels of Service

- Levels of Service are critical for asset owners to understand,
- Challenges to obtain customer sentiment.



Governance

- Asset owner definition established, some grey areas and gaps, need to define roles and responsibilities further.



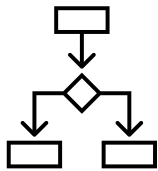
Knowledge Growth and Engagement






- Hamilton developed in-house training modules ,
- Highly collaborative project management and workshop style approach,
- Continuous improvement focus.

Standardizing Processes

- 17 Standard Operating Procedures (SOP) identified to ensure consistent asset management methodologies and approaches are applied across the organization:



- Lifecycle Management SOP Level I,
- Levels of Service SOP Level I,
- Risk Management SOP Level I,
- Demand Management SOP Level I – in Development,
- Asset Registry Quick Guide.

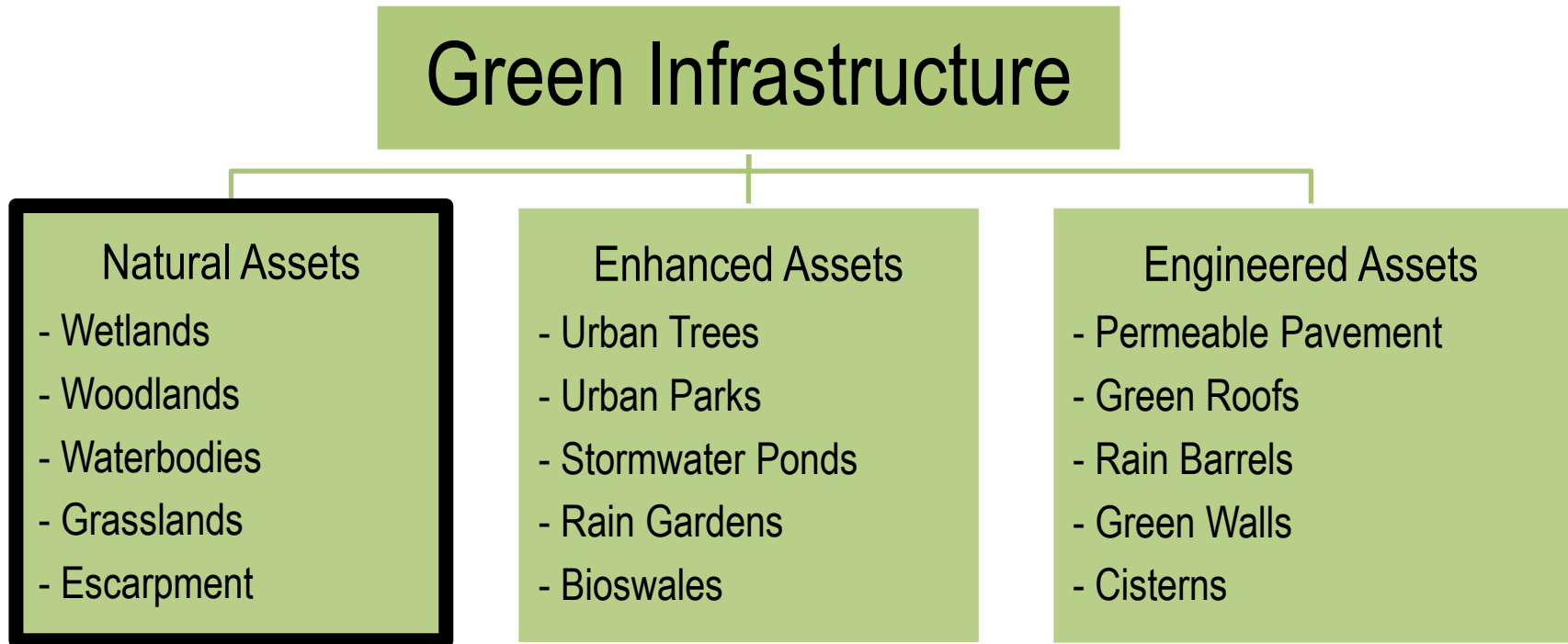
Corporate Asset Management Program Strategies	Status
Strategic Asset Management Policy	
Governance	
Communications	
Levels of Service	Under Review
Data Management	Under Development
Demand Management	
Risk Management	
Lifecycle Management	
Integration	
Finance	

Continuous Improvement

- Over 375+ CI Items have been identified across all asset groups to address the issues/opportunities identified,
- 30+ items identified in the Natural Assets Roadmap.

O.Reg 588/17: Requirements for Natural Assets

It is a requirement per O.Reg 588/17 to include green infrastructure assets in municipal asset management planning. Scope of this discussion today is **natural assets only**.



For Ontario municipalities to meet O. Reg 588/17 for natural assets, the scope needs to cover **municipally owned** natural assets only.

Traditional Assets versus Natural Assets

Natural assets do not always follow traditional asset or financial management practices. The City of Hamilton is early in its recognition of natural assets in asset management plans and financial reports.

TRADITIONAL ASSETS	NATURAL ASSETS
Must be constructed or bought	Natural forming
Have an end of life and must be replaced	Have no end of life, don't need to be planned for replacement
Expected service levels achieved after construction / installations	Desired service capacity can take months to decades to achieve
Generally Accepted Accounting Principles / Tangible Capital Assets	Not incorporated into Generally Accepted Accounting Principles / Tangible Capital Assets
Typically only provides the service it is intended to perform and can be quantified	May also provide additional ecosystem services that benefit the City but may not be able to be quantified at this time
Many available best practices and guides	Few available best practices

Natural assets provide services to the City, but these services are not typically quantified. The first step in effective asset management is to link natural assets to the services they provide.

NATURAL ASSET	FUNCTION / SERVICE	POTENTIAL BENEFIT INDICATORS
Example: Wetlands	Stormwater management	Reduction of flood impacts from storms, reduces pollutant load in receiving waterbody, water available for multiple uses in the watershed
	Recreational	Improved human health and well-being by recreating in natural areas
	Wildlife habitat	Increased biodiversity, improved crop and forage production through pollination
	Temperature regulation	Local temperature reduction in urban settings
	Carbon sequestration	Mitigate climate change impacts

Natural Asset Management Roadmap

- The City of Hamilton was accepted into the Natural Asset Management Roadmap program conducted by the Natural Assets Initiative (NAI) which was completed in **November 2023**.
- **Over 30 actions** were identified with an associated priority (high / medium) and timeline (short (12 months) / medium (1-3 years)).
- Key themes for identified actions include:
 - Data inventory collection,
 - Condition assessments,
 - Financial planning, and
 - Training.



Natural Asset Management Roadmap Gantt Chart

Tasks	2023				2024				2025				2026				2027				2028				2029				2030				2031															
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4												
First Asset Management Plan & Roadmap Development	Internal Resources + \$600 External																																															
Initial Data Collection & Condition Assessment					Internal Resources + Roster Assignment																																											
Initial Financial Planning					Internal Resources																																											
Additional Data Collection & Risk Assessment									Internal Resources + Roster Assignments																																							
Lifecycle Management, Levels of Service & Long-Term Financial Planning													Internal Resources + Consultant Assignment																																			
Ongoing Training, Communication and Progress Reporting					Internal Resources																																											



Future State: Levels of Service, Lifecycle Management & Financial Planning

Service Delivery Objective	Customer Levels of Service	Technical Levels of Service	Natural Asset Activity Type	Lifecycle Stage	Budget
Levels of Service Objectives	<i>Condition</i>		Rehabilitation or restoration	Renewal	Capital Budget
	Customers are satisfied with the quality of the service.	Assets are maintained in adequate condition to deliver service.			
	<i>Function</i>		Monitor / Manage	Operations & Maintenance	Operating Budget
	Services meet customer needs and limit negative impacts.	Assets comply with regulations and perform as expected.			
	<i>Capacity</i>		Acquire Asset Ownership	Acquisition	Capital Budget
	Services have enough capacity and are accessible to customers.	Assets of sufficient capacity are available.			

Many Thanks to the Team

Corporate Services

- Financial Planning and Policy Division, Brian McMullen and Staff
- Information Technology, Doug Kay and Staff

Public Works

- Environmental Services, Cynthia Graham and Staff
- Corporate Facilities and Energy Management, Indra Maharjan and Staff

CityHousing Hamilton

- City Housing, Adam Sweedland and Staff

Planning and Economic Development

- Tourism, Museums and Culture, Debra Seabrook and Staff
- Animal Services, Licensing and Municipal Law Enforcement, Dan Smith and Staff

Community Services

- Recreation, Steve Sevor and Staff
- Long Term Care, Holly Odoardi and Staff
- Children's and Community Services, Brenda Bax and Staff

Healthy and Safe Communities

- Public Health, Dr. Elizabeth Richardson and Staff

Natural Assets

- Stakeholder team members and associated Directors

Corporate Asset Management

18