



Council Workshop



Defining Asset Management

- Definitions: Speaking the same language
- Regulatory landscape

Components of an Asset Management Plan

- Levels of Service
- Asset Lifecycle Activities
- Financial and funding strategies

The Big Picture

- Key Principles
- Activities
- Multi-disciplinary system

Next Steps

- Our shared vision of success
- Summary: What We Aim to Achieve

What is Asset Management?

An asset is an item, thing or entity that has **potential** or **actual value** to an organisation. (ISO 55000, 2014 (3.2.1))

The **coordinated** activity of an **organisation** to realize **value** from **assets**.
(ISO 55000, 2014 (3.3.1))



Asset management involves the **balancing** of **costs**, opportunities and **risks** against the desired **performance** of assets to achieve an organisation's **objectives**. (The IAM)



Municipal Asset Management in Ontario



2002 – Safe Drinking Water Act

Full Cost Accounting and Quality Management (DWQMS).



2009 – Public Sector Accounting Board (PSAB) 3150

Include Tangible Capital assets (TCA) in their financial reports.



2012 – Municipal Infrastructure Investment Initiative (MIII)

Detailed asset management plans required for Provincial grant funding.



2014 – AMO Federal Gas Tax Fund Administrative Agreements

Required to complete Asset Management Plans by December 31, 2016.

Ontario Regulation 588/17

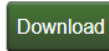
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O. Reg. 588/17: ASSET MANAGEMENT PLANNING FOR MUNICIPAL INFRASTRUCTURE

filed December 27, 2017 under *Infrastructure for Jobs and Prosperity Act, 2015, S.O. 2015, c. 15*



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Made: December 13, 2017

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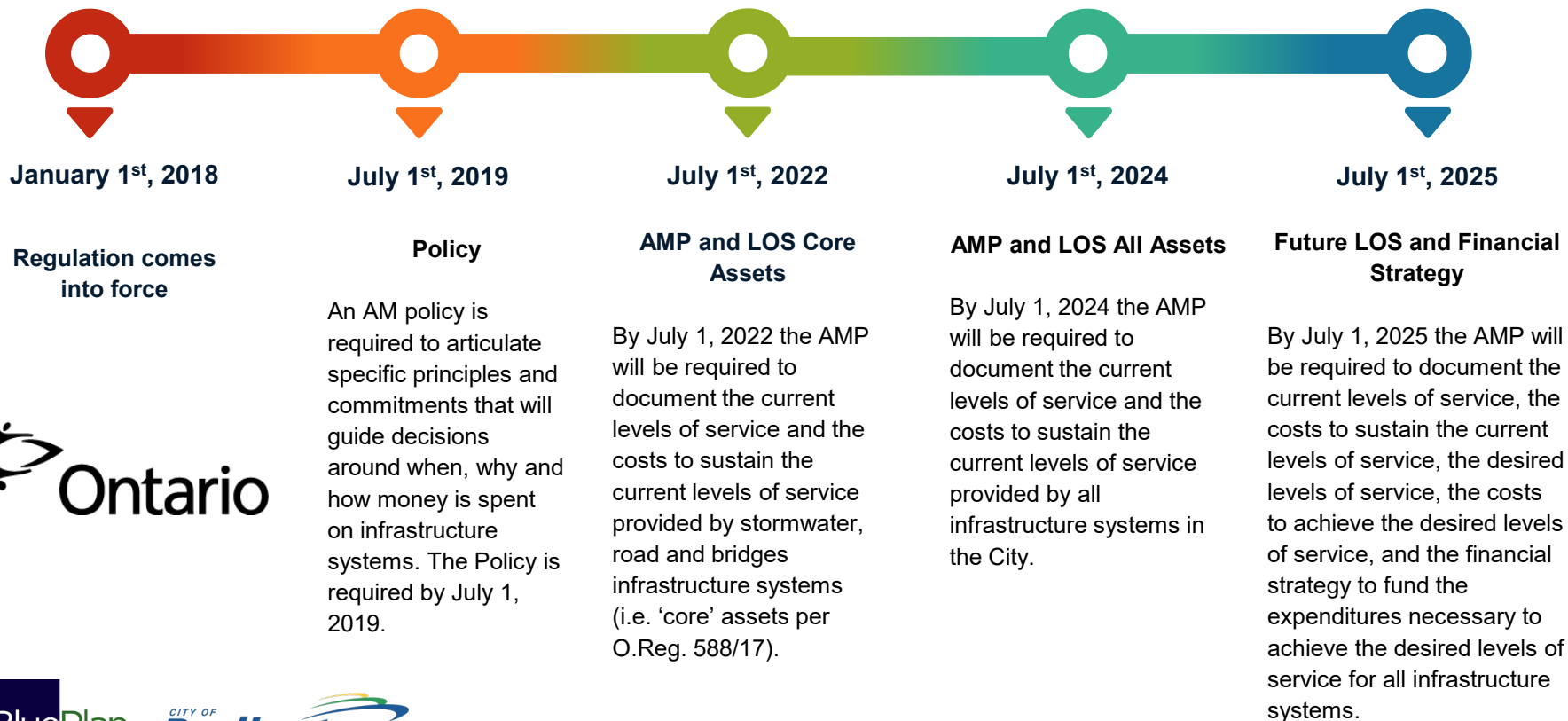
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ASSET MANAGEMENT PLANNING FOR MUNICIPAL INFRASTRUCTURE

Background and O. Reg 588/17 Milestones

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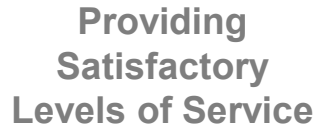
Purpose of an Asset Management Plan

- Written representation of intended AM programs.
- Quantifies service level requirements and the ability to meet them.
- Requirement of federal and provincial funding programs, and regulations
- Demonstrates corporate stewardship and plots a sustainable path forward

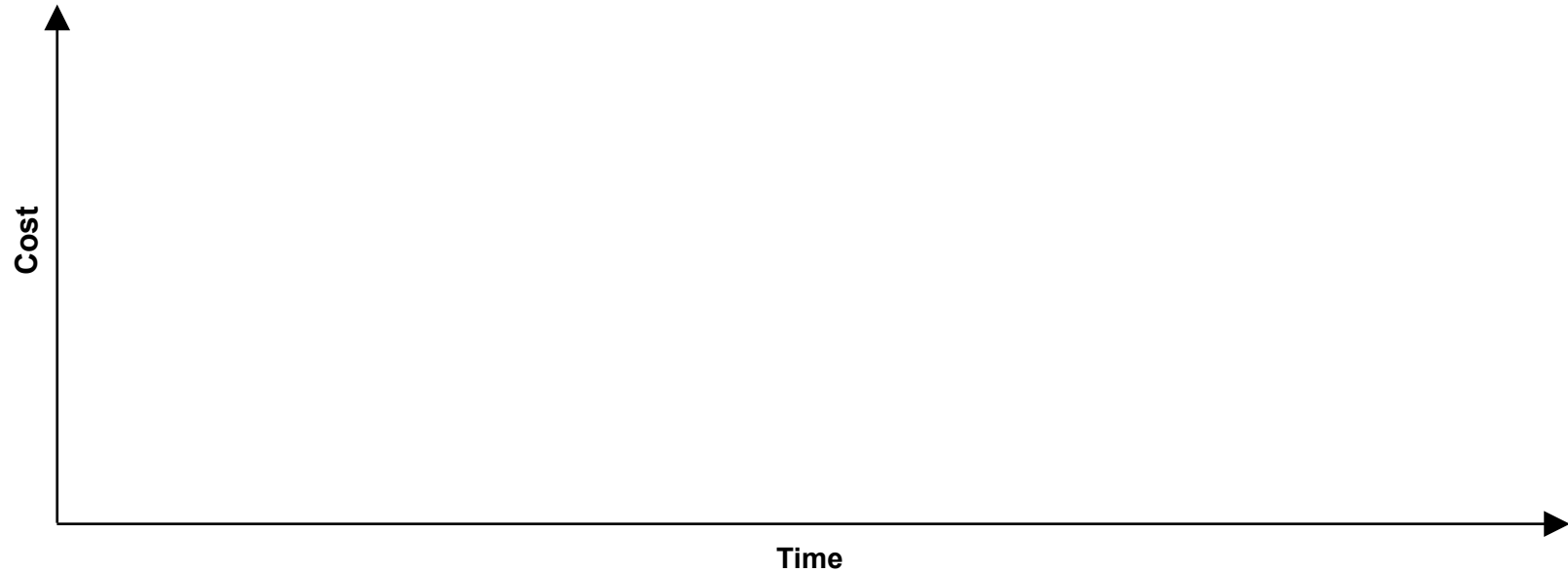




Making the Best Possible Decisions About Assets

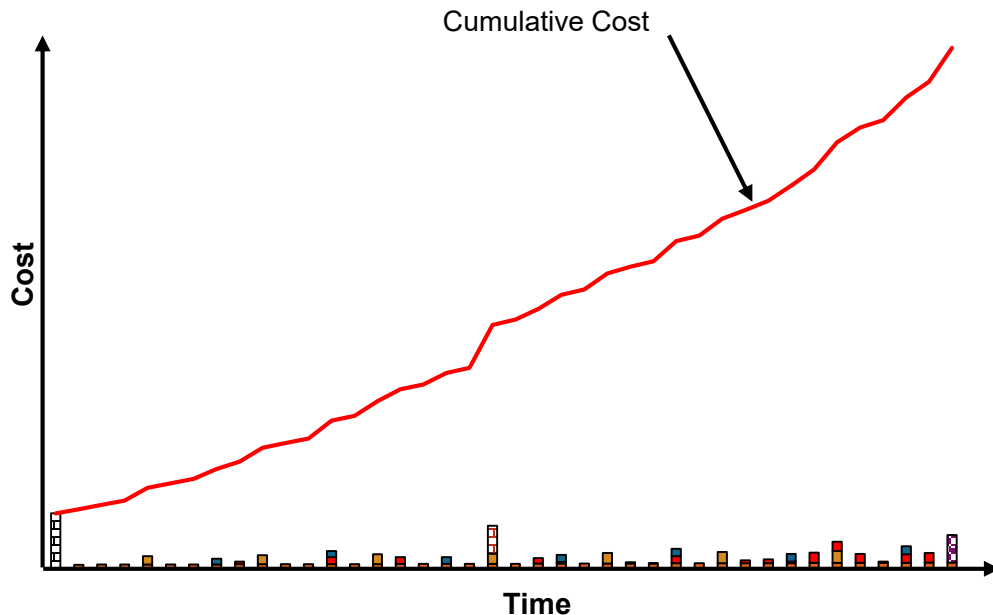


Asset Lifecycle Activities



Cumulative Cost

- Capital Costs (construction, rehabilitation and disposal) are only approximately 20% of the full lifecycle costs.
- However, the highest influence on the cost is early in the lifecycle.
- **For every new asset, there is an operating impact**
- **Sometimes the lowest upfront cost, is not the lowest lifecycle cost**



*Graph for illustration purposes

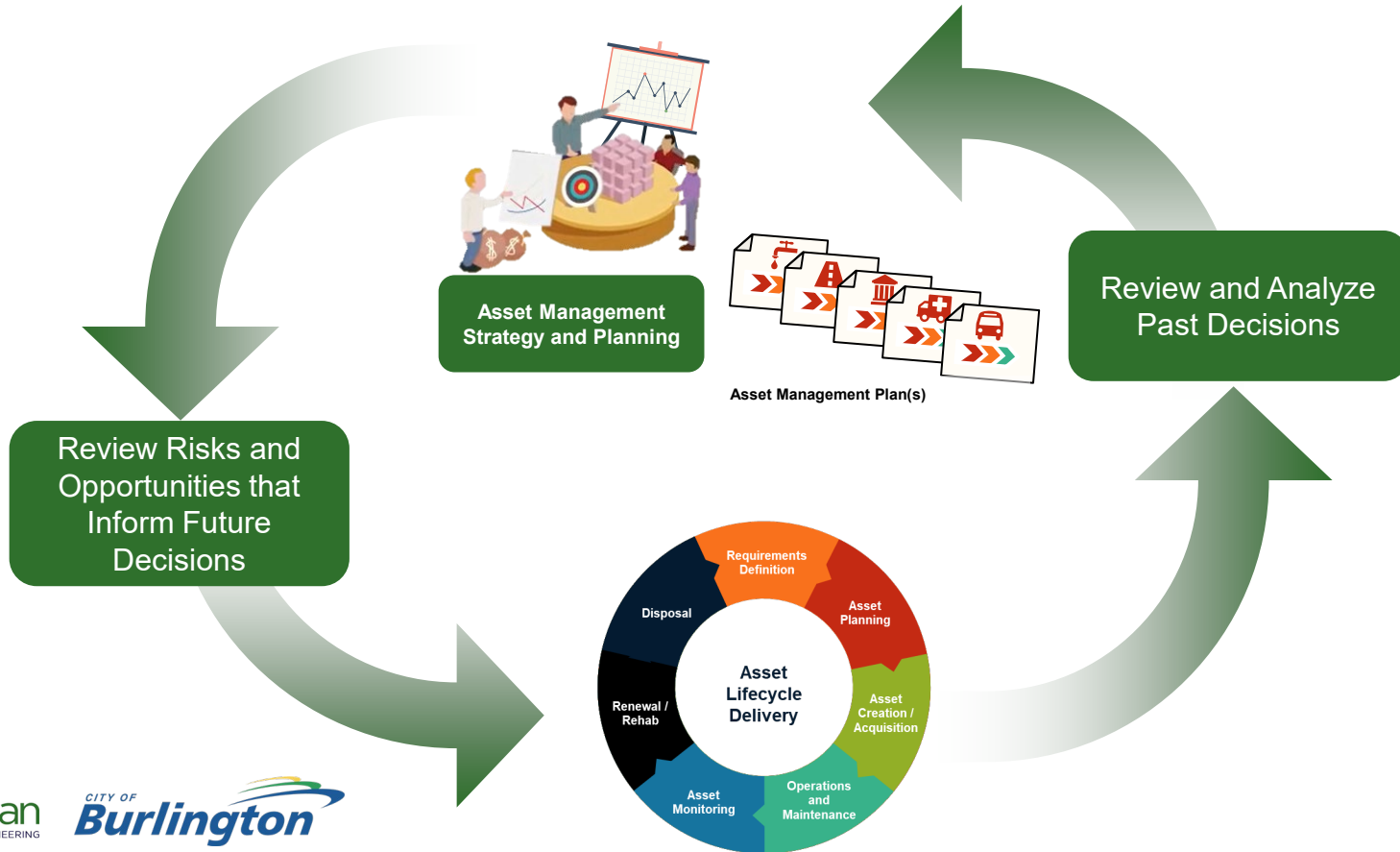
Any questions so far?



All Assets are Part of a Bigger System

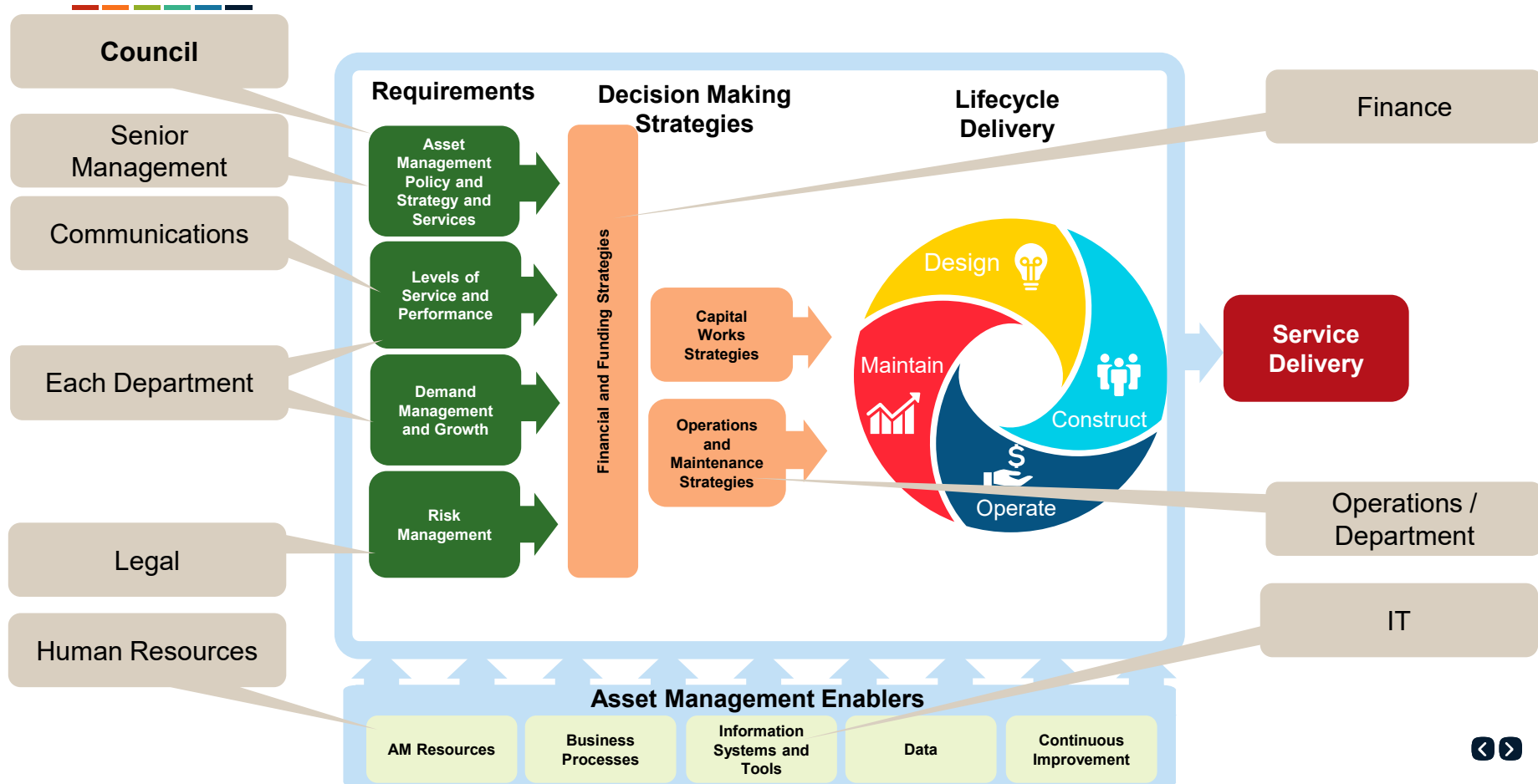


Continuous Learning Cycle

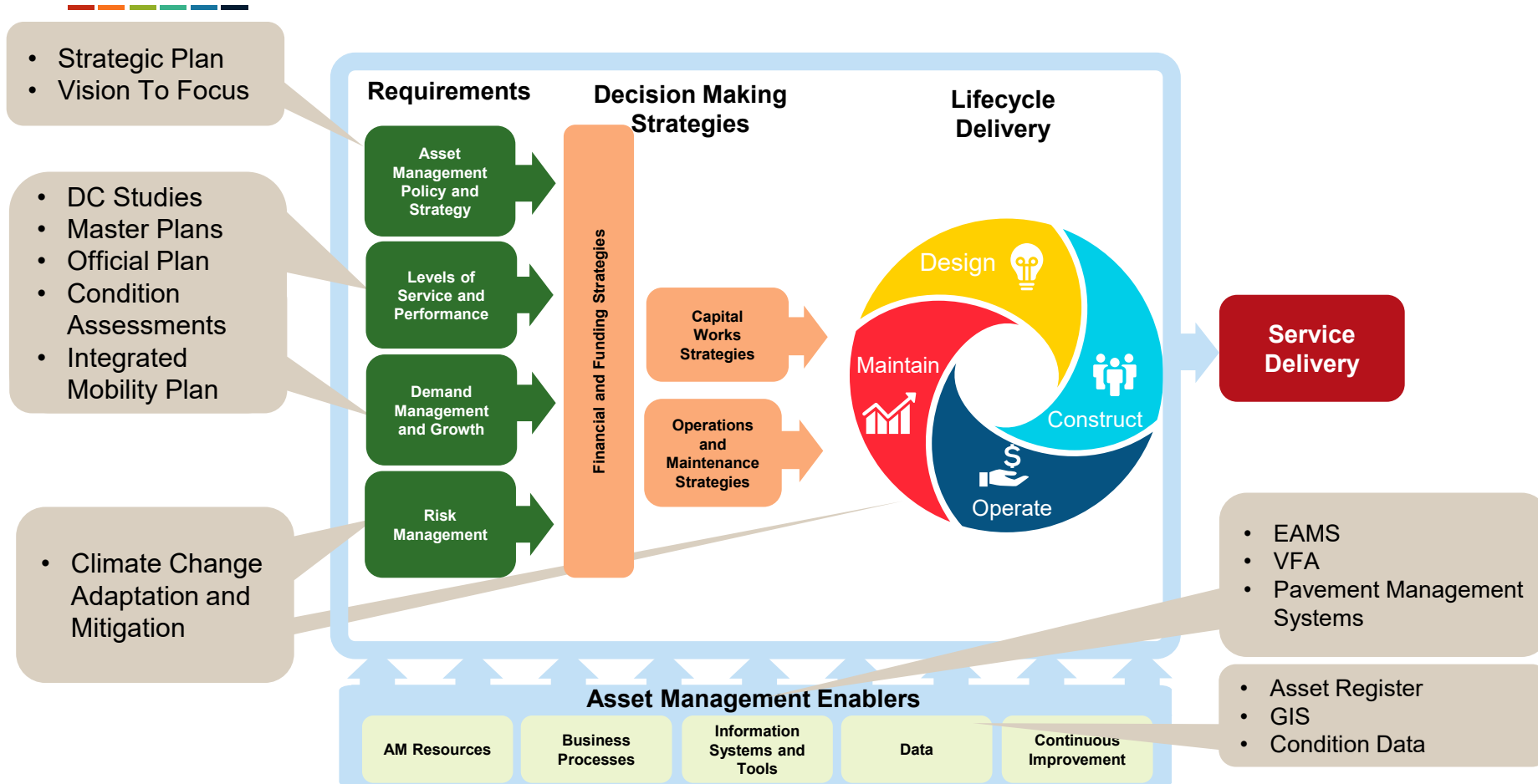


Asset Management is an Organization-Wide Effort

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Links to Other Studies



Key Documents in an Asset Management System



Corporate Asset Management Plan

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Executive Summary

Concise summary of the plan



Introduction

Why we need a plan



State of the Assets

Inventory and condition



Levels of Service

What we provide



Lifecycle Management Strategy

How we provide the service



Financing Strategy

What it will cost and how we will pay for it



Improvement Monitoring

Where we go from here

Asset Management Plan by Service

- This version of the AMP is categorized by service
- This better aligns with the City's approach to presenting information in a service-oriented way
- This provides the link of cost and levels of service to what is received by the community

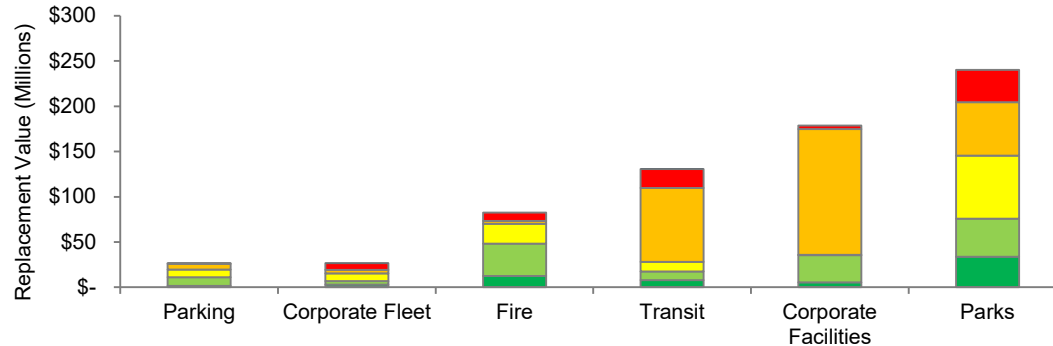
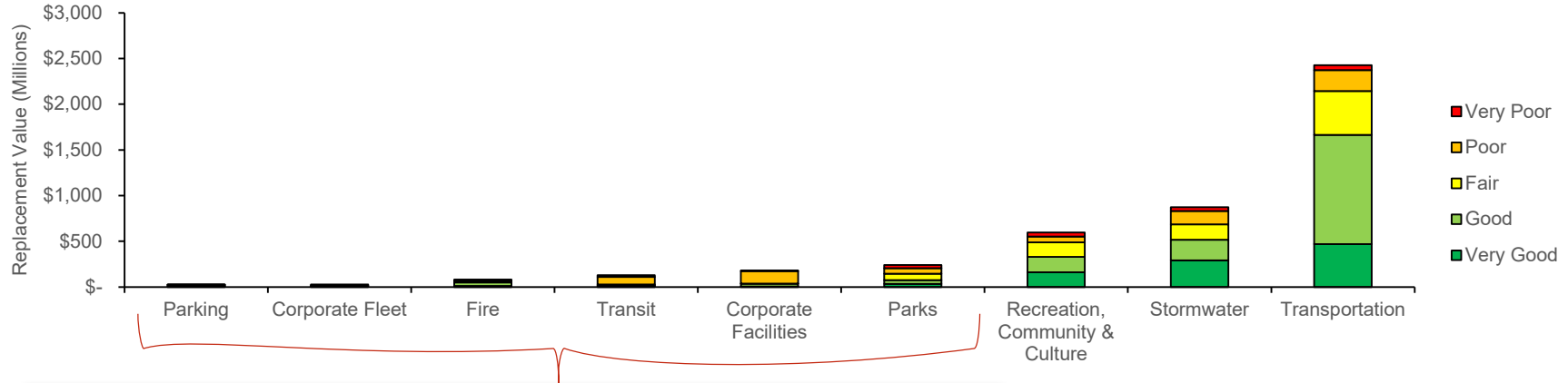
Asset Type	Replacement Value
Transportation	\$2,426,400,000
Transit	\$78,000,000
Parking	\$26,700,000
Stormwater	\$871,300,000
Corporate Facilities	\$178,700,000
Recreation, Community & Culture	\$562,000,000
Parks	\$240,200,000
Fire	\$58,200,000
Corporate Fleet	\$27,800,000
Forestry	TBC
ITS	\$65,000,000
Total	\$4,534,300,000

Note: Numbers are currently being validated and will be finalized when the plan is presented

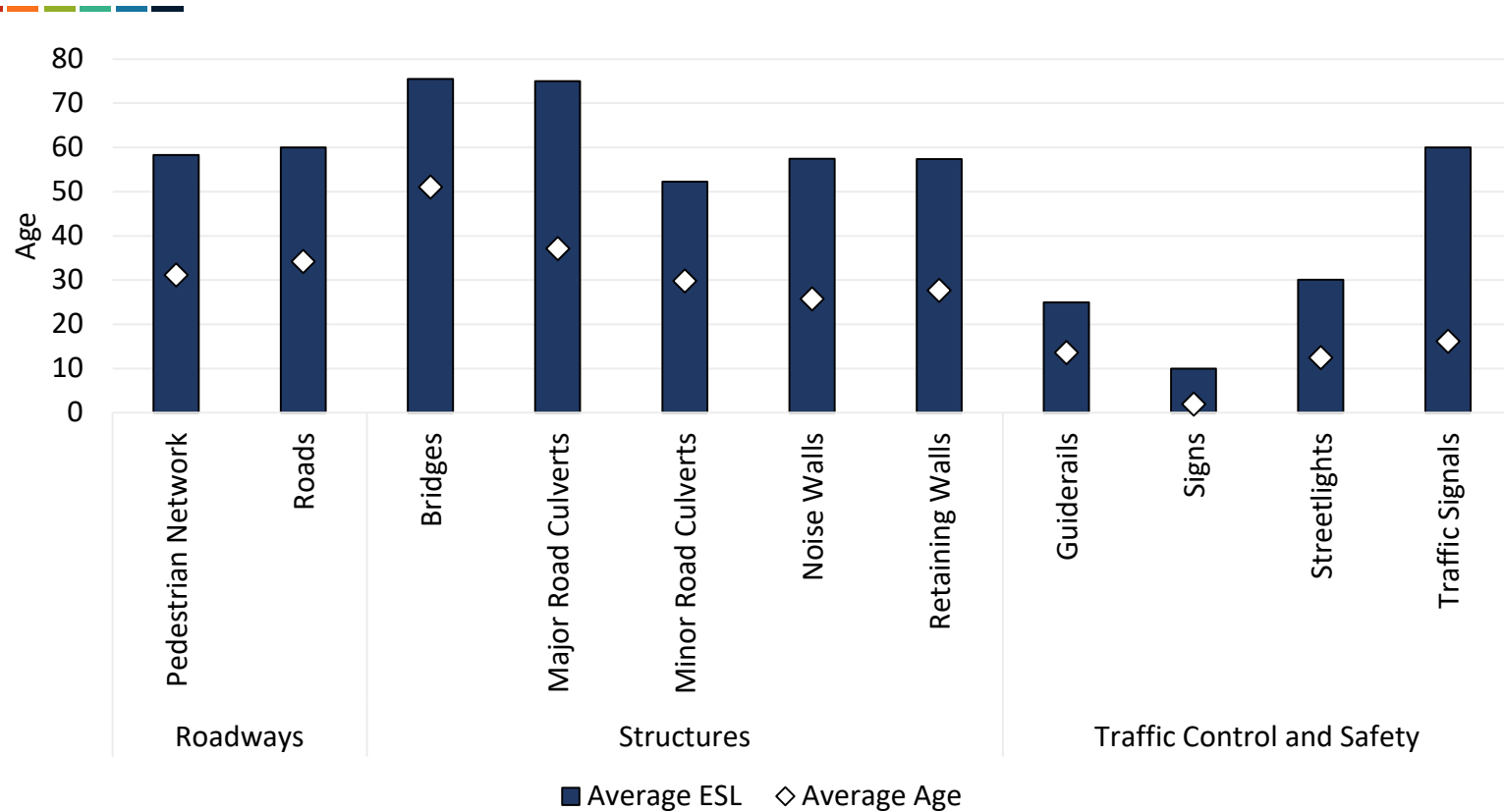
State of the Infrastructure



- This section of the plan summarizes asset quantity and condition



Understanding Remaining Life



Level of Service

- Defines levels of service through performance measures, targets and
- Shows current performance relative to the targets set out.

Service Attribute	LOS Statement	Community Focused Performance Measures
		Performance Measure
Accessibility	Providing an accessible transportation network.	# of vehicle trips, # of cycling trips, # of pedestrian trips. % of transportation network that is AODA compliant.
Availability	Providing a transportation network with reasonable traffic flow and movement.	% of residents satisfied with the traffic flow.
Cost Effectiveness	Providing an efficient transportation network for all modes.	Average asset renewal rate (# years)
		Cost to provide service (\$/household)
Sustainability	Providing a transportation network that is environmentally conscious.	% of streetlights that are energy efficient
		Volume of salt applied to road/lane km
Quality	Providing a transportation network at the appropriate material quality.	% of right-of-ways that meet the target quality level
Safety	Providing an operational road network that is safe for drivers, pedestrians and cyclists.	# of vehicle, cyclist, and pedestrian incidents (complaints)
		Bus prioritization
		Complete Streets (streets that have amenities for all road users: bus, bike, pedestrian, vehicle)
		Operational cost per resident per year

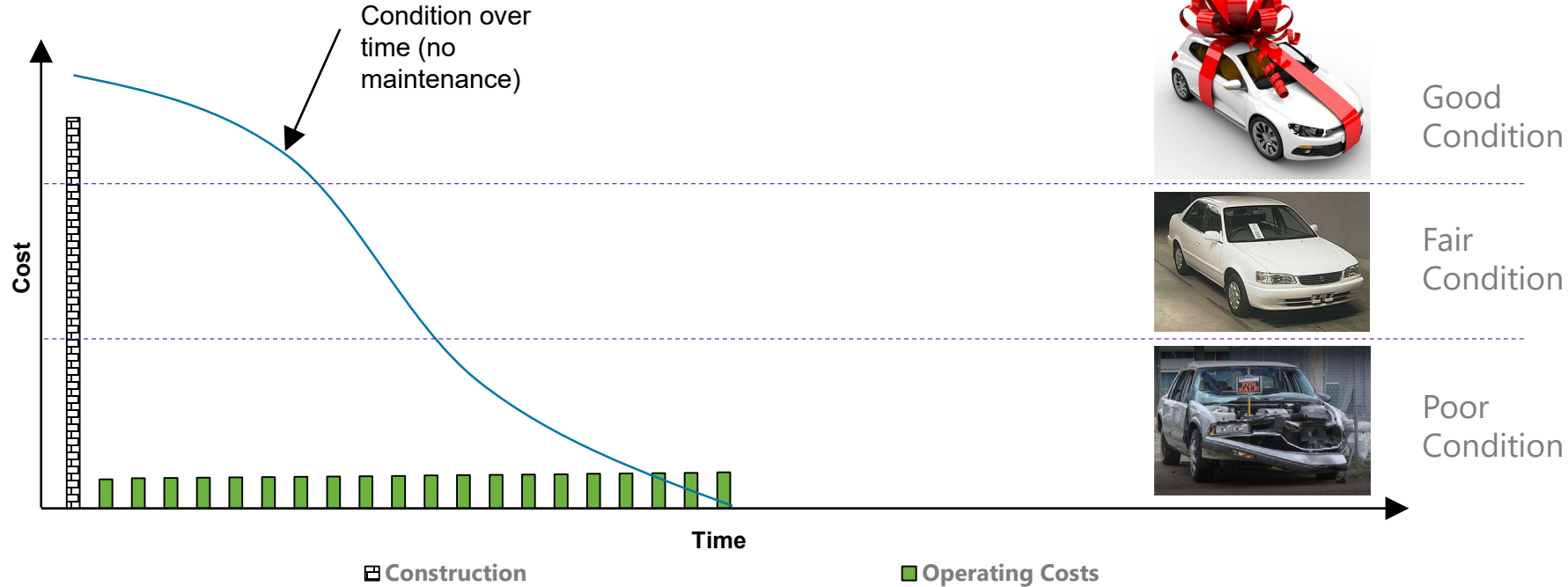
Levels of Service



Levels of Service and Performance

What we provide

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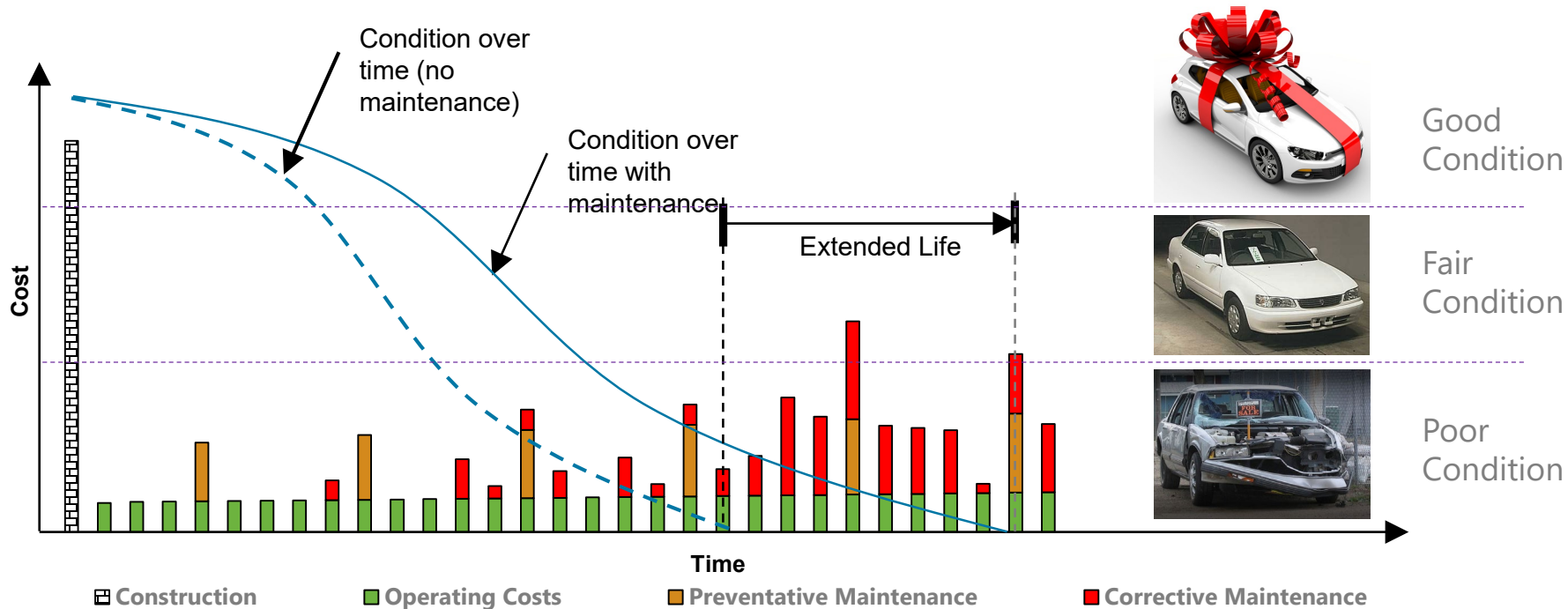


Levels of Service



Levels of Service and Performance
What we provide

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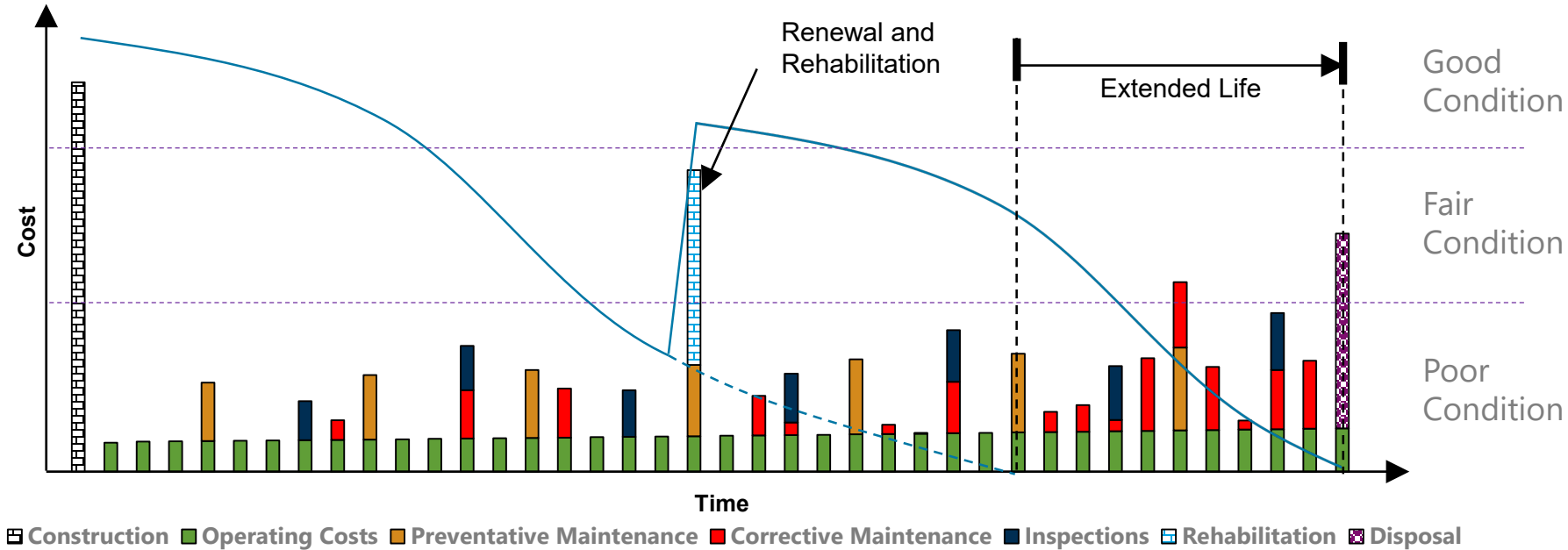


Levels of Service



Levels of Service and Performance
What we provide

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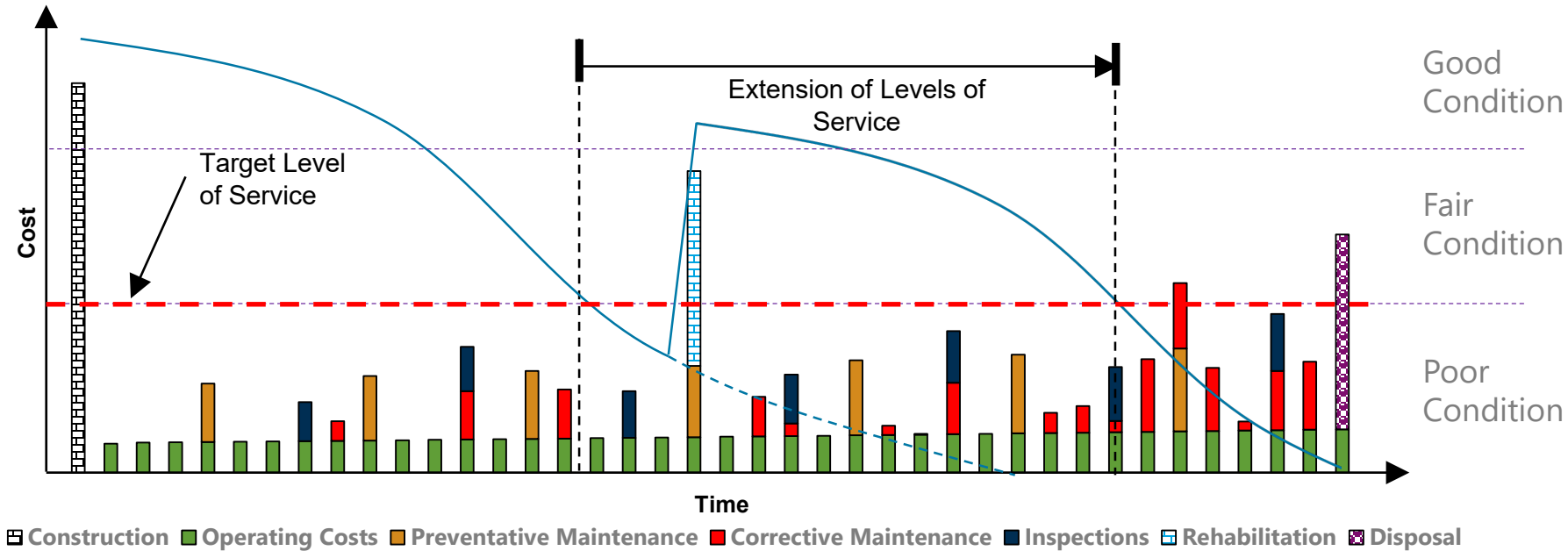


Levels of Service



Levels of Service and Performance
What we provide

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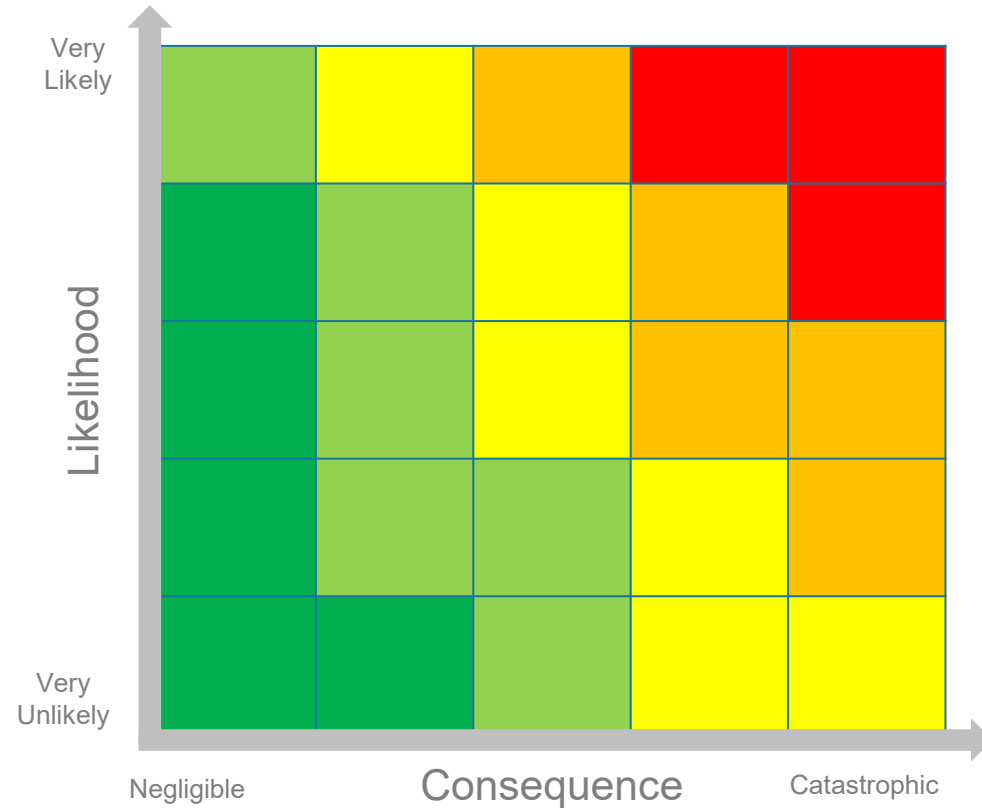
Any questions before we
move on?



Risk Management



- The likelihood and consequence of an event occurring
- Risk = Likelihood of Failure x Consequence of Failure
 - Likelihood is based on actual or estimated condition
 - Consequence is based on assessments of social, environmental and economic factors
- Alignment with the Corporate Risk Framework



Risk Management and Climate



- This is connected to the City's Climate Action Plan
- In alignment with the Climate Adaptation Plan which is in development
- Climate change impacts all asset classes
- Tied to levels of service and risk
- High-level considerations within the asset management plan



Financial Strategy

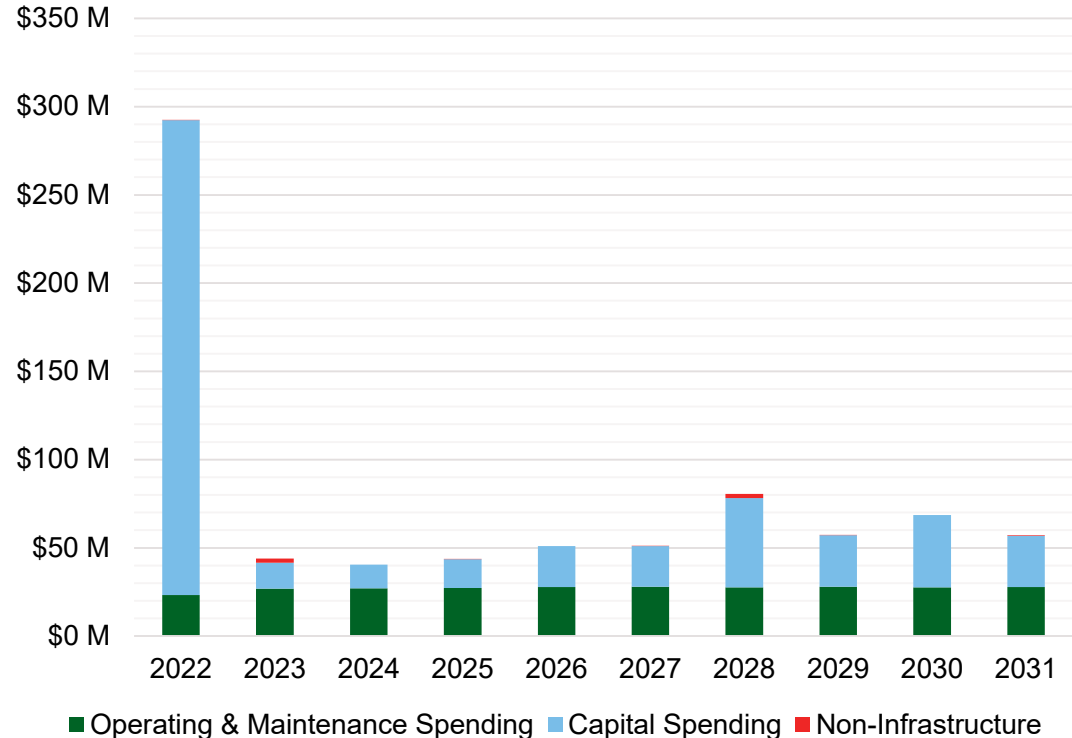
- Financial strategy is to be presented in September
- Shows yearly expenditure forecasts broken down by:
 - Non-infrastructure solutions
 - Maintenance activities
 - Renewal/rehabilitation activities
 - Replacement activities
 - Disposal activities
 - Expansion activities
- The spike at the beginning represents investments that were identified to be required before 2022 and are yet to be completed.
- Within the backlog, there are varying levels of risk and impacts.



Financing Strategy

What it will cost and how we will pay for it

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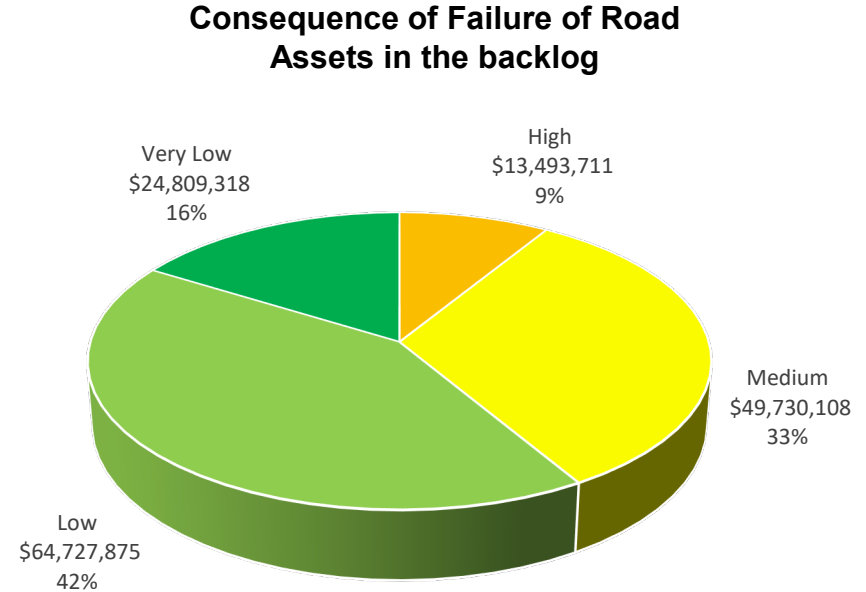


Note: Current analysis, work is ongoing



Understanding Backlog and Consequence of Failure

- Assets in the backlog are beyond their due date for renewal, rehabilitation, or repair
- It is important to understand the risk of the assets in the backlog
- For example, roads are planned to be renewed at a Pavement Condition Index (PCI) of 40 (assets beyond that are in the backlog)
- There are currently \$153m of roadways that are below a PCI of 40 (10% of the road network)
- Not all of these assets present unacceptable risks



Assessment of Funding Options

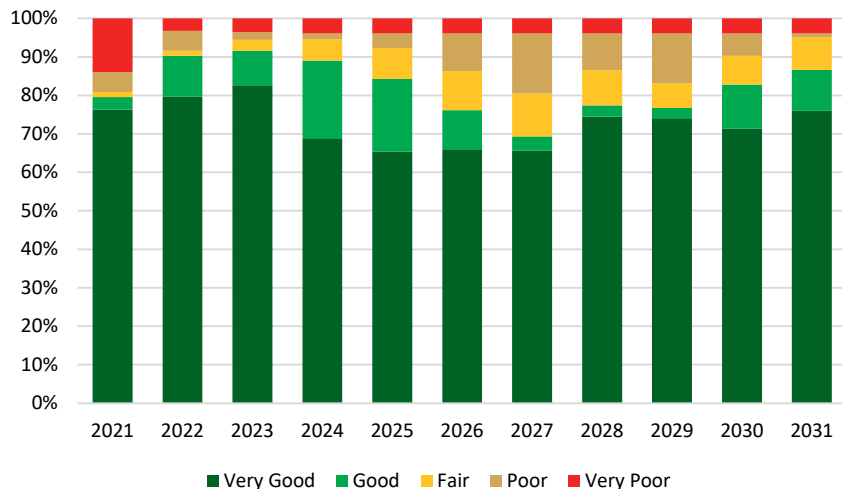


Financing Strategy

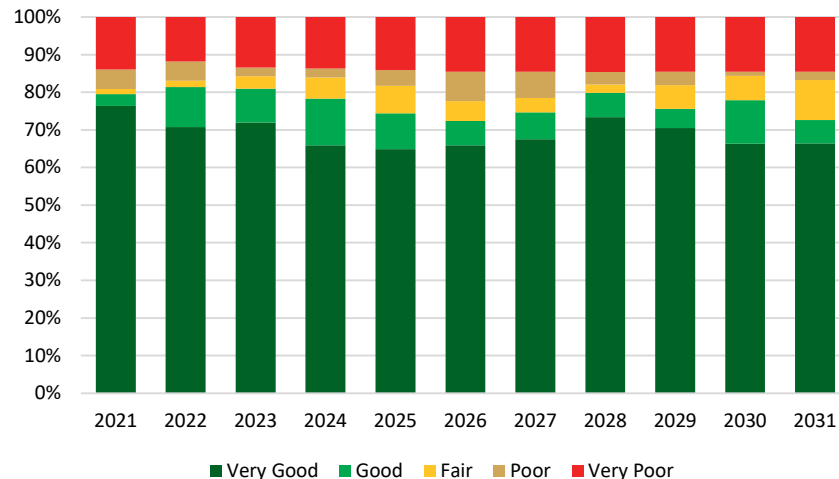
What it will cost and how we will pay for it

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Performance Forecast -
Unconstrained Funding Example



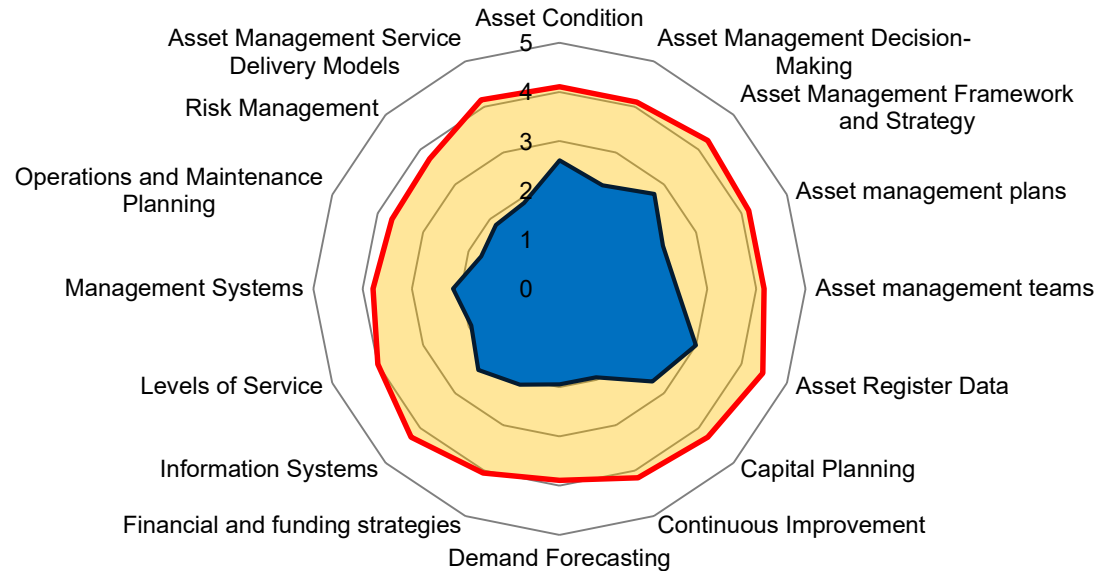
Performance Forecast -
Constrained Funding Example



- Multiple options are to be assessed as part of the financial strategy section of the plan
- Long, medium and short-term forecasts will be generated

Advancing Capabilities

- An improvement plan to advance asset management practices will be presented within the plan.
- Includes refinements of condition information, cost data and overall improvements in data confidence.
- Current initiatives in-progress are advancing the ratings.



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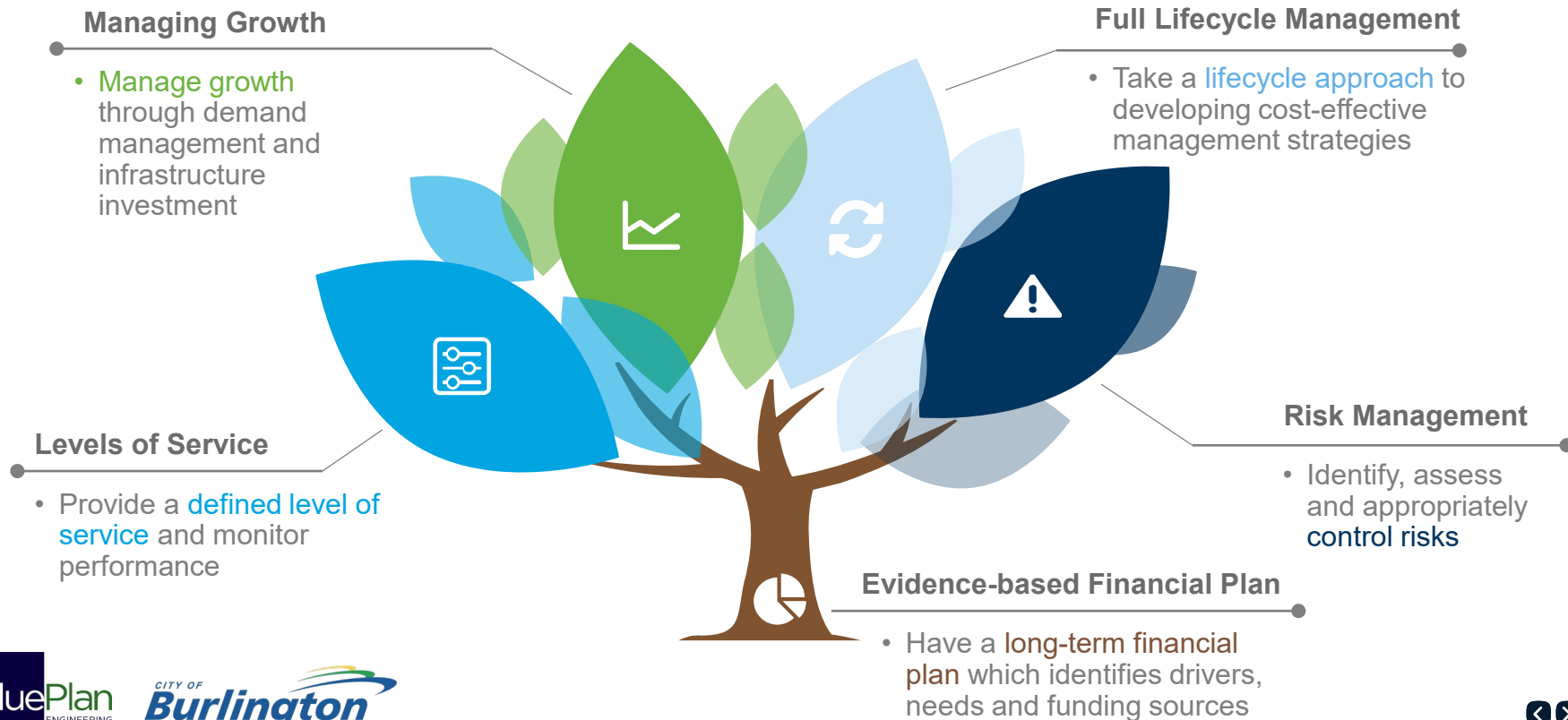
What does success in Asset Management look like to you?



Press S to show image



Closing Remarks



Next Steps

- September Committee
 - Asset Management Plan and Asset Management Financing Plan
- Updated Communication Plan
- Continuous Improvement Plan
- Asset management strategic alignment: Vision To Focus considerations



Top Priorities for Focus Area 3 - Supporting Sustainable Infrastructure and a Resilient Environment				
Top Priority and Goal		Key Action	Achievable Performance Target (4-year workplan)	Aspirational Performance Target (25-year Strategic Plan)
Infrastructure Gap	Reducing the infrastructure funding gap for all city owned assets	Implement the Asset Management Financial Strategy starting in Q3-2019	Decrease the City's infrastructure funding gap by 25% by 2022	Eliminate the City's infrastructure funding gap by 2027

Thank You

Questions and Discussion

