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to

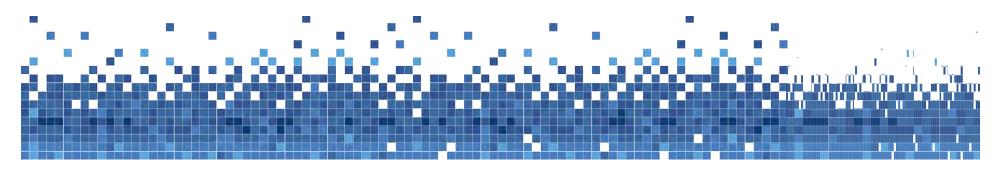
Practice



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Plan a P

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Overview

- > Asset Management
- > Where do we start?
- Change Management
- > Risk Management
- ➤ Asset Management Plans
- > Future Focus





The Asset Management Landscape

It is changing

But it is challenging to move from Theory to Practice

Key requirements:

- > Understand the imperative
- ➤ Gain sponsorship
- > Demonstrate successes
- > Communicate
- > Have clear direction



The Imperative

Because we have to

- Direction in Ontario
- Direction in Alberta
- ➤ Ministry of Infrastructure letter

Because of scarce resources

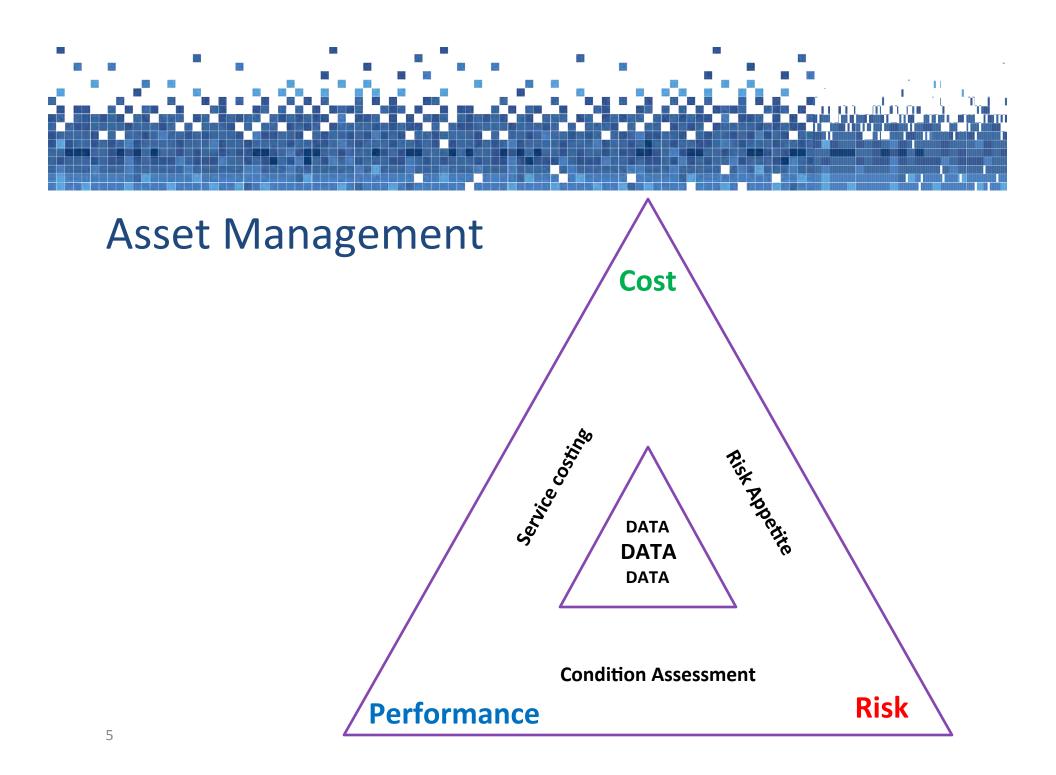
Economic downturn

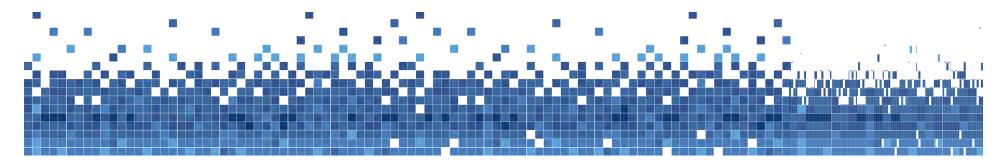
Because of ageing infrastructure

> Future renewal requirements

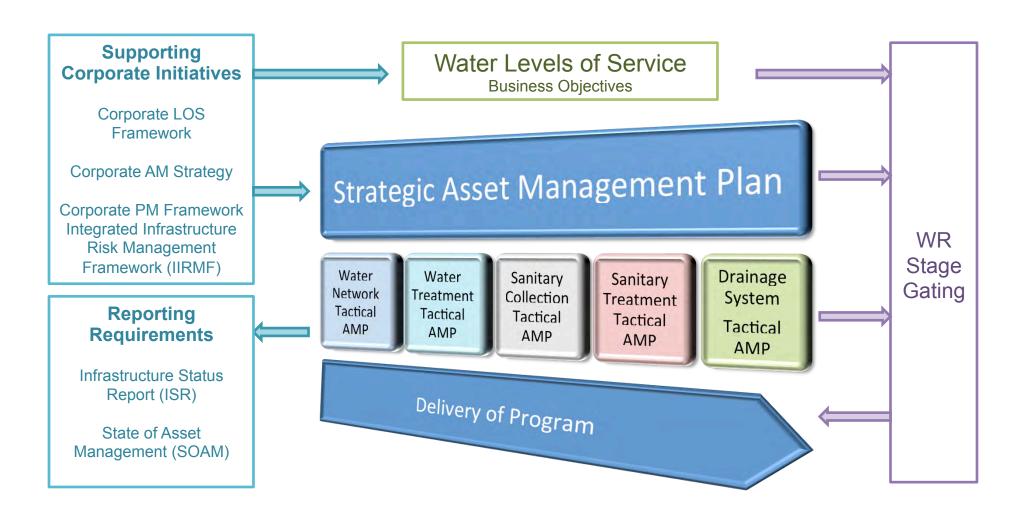
Because it is a good thing to do!

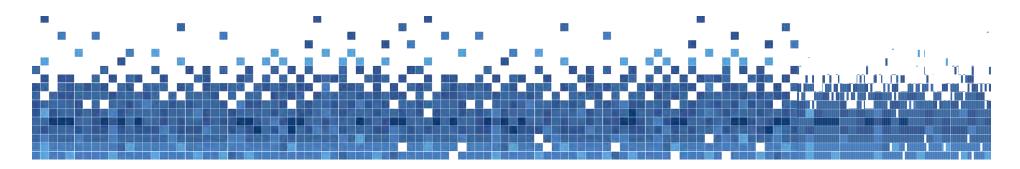
You, me, all of us paying our taxes and bills!





Water Resources AM Framework





Where do we start?

- Leverage existing Information
 - > Condition Assessments
 - ➤ Infrastructure Performance History
 - > Tangible Capital Assets information
 - > Capital Programs
 - ➤ Growth Forecasts
 - Business Objectives
- Document ongoing initiatives that could inform or influence the AM process

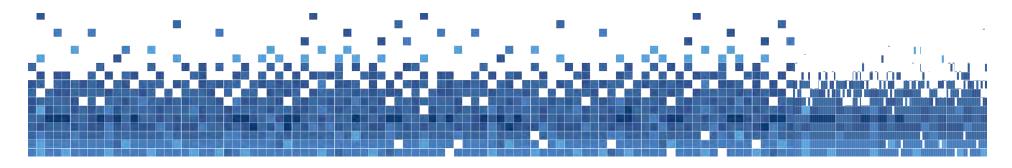


Our Assets

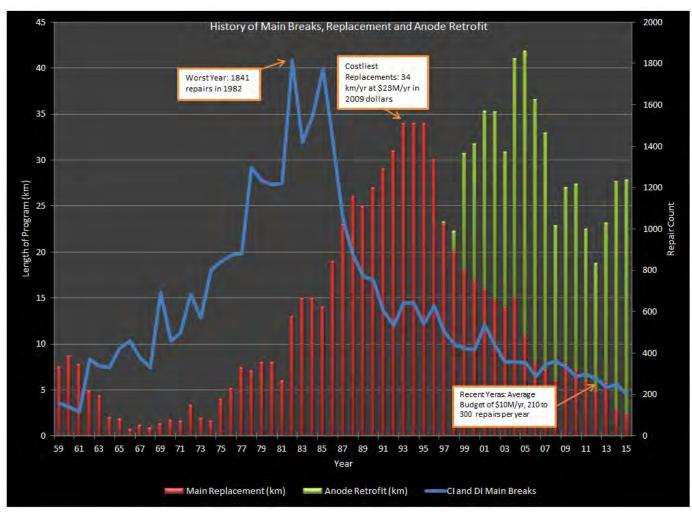
- > \$40.2 billion of assets (current replacement value) approx. 60% of the City of Calgary's total asset portfolio replacement value
- ➤ Over 90% of our assets are rated "Good to Very Good" Physical Condition. Higher for Demand and Functional Condition







Leveraging Successes





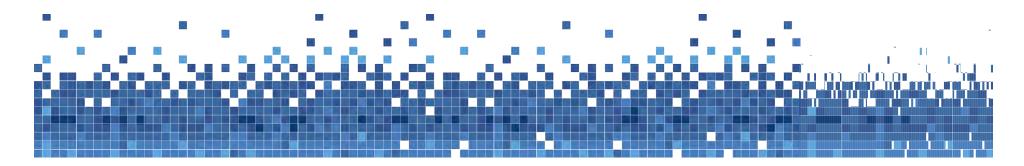
Another example – Sanitary lining program





Rehabilitation – 30 km/year

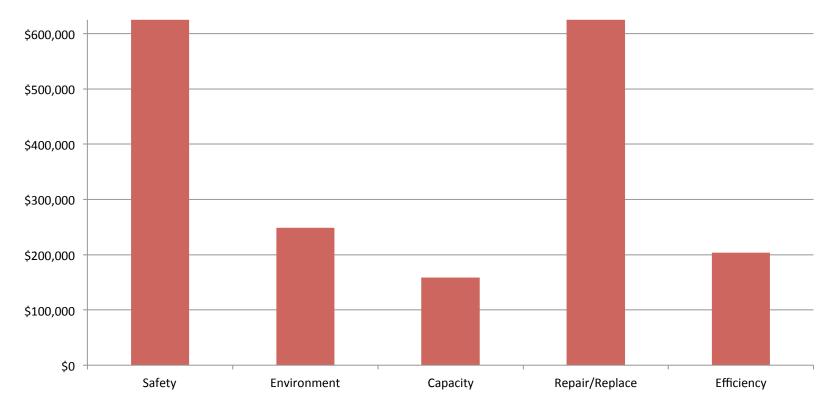
Replacement – 1km/year

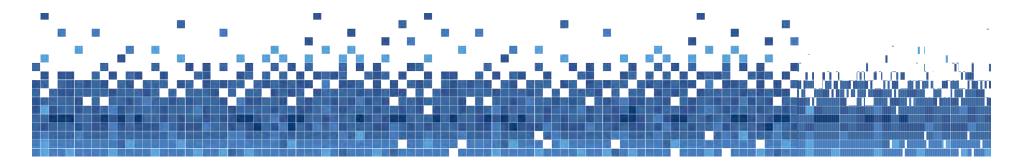


Risk Management

Risk and criticality assessments

Criteria Score Summary





Risk Management

Monitoring the condition of aging infrastructure



Risk Management – Condition

Assessments



FeedermainsConcrete pipe inspections



Distribution Watermains Metallic main inspections



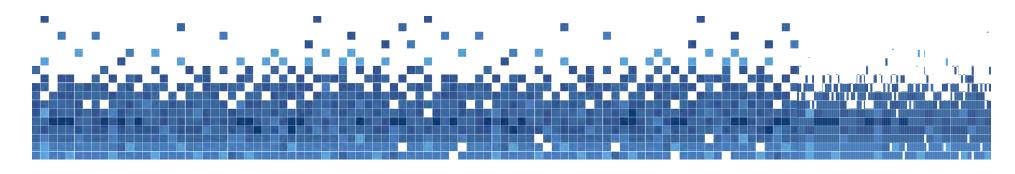
Risk Management – Infrastructure



Bonnybrook WWTP expansion

Glenmore WTP upgrades





Risk Management – Criticality

High Probability Impacts
(lower cost); develop/refine
preventative maintenance

Probability

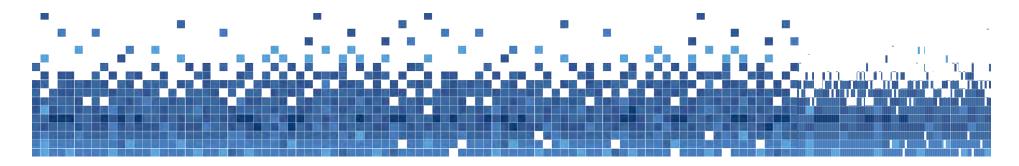
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Acceptable; no immediate
action required

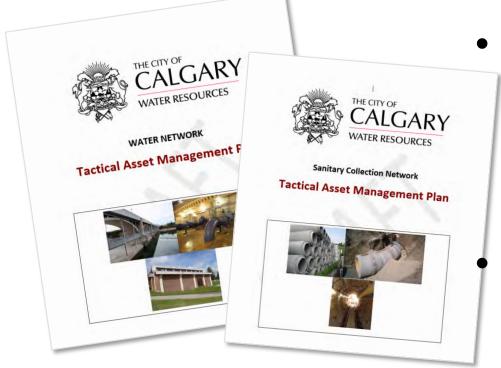
High Cost Impacts (low probability); develop/refine preventative maintenance

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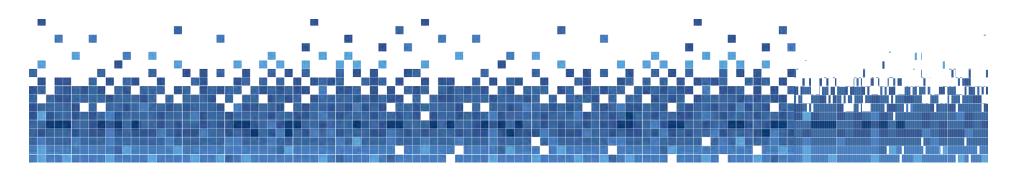
IMPACT



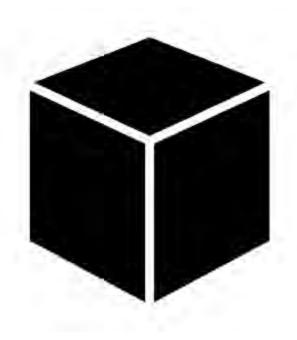
Asset Management Plan

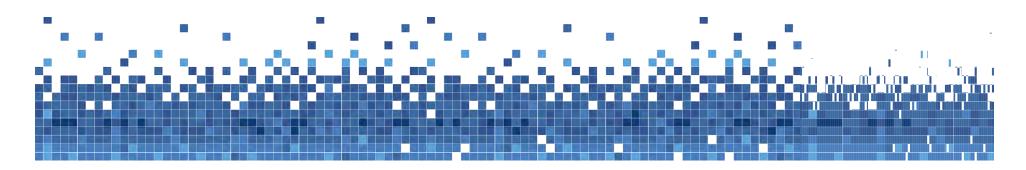


- Provides a means of communicating
 - **≻**Internally
 - **≻**Externally
 - It's a plan and is only a snapshot!



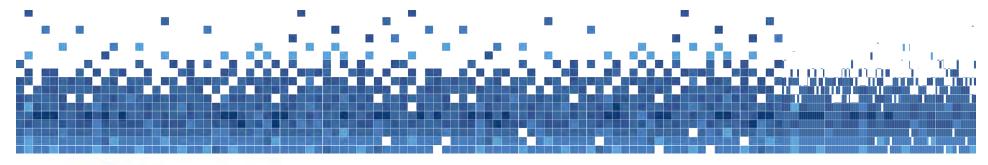
An AMP is not a black box





Future Focus

- Level of Service review and strategy
- Support continuous improvement in asset management practice.
- ➤ Manage the impact of growth through demand management and infrastructure investment.
- Manage the impact of changes in Regulatory requirements
- ➤ Hone in on lifecycle practices to develop cost-effective management strategies.
- Energy Management





Thank you for listening



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