

The Evolution of Asset Management In Canada

7th IWA Regional Workshop: Yokohama, Japan



www.calgary.ca call 3-1-1



THE CITY OF
CALGARY



Agenda

- Drivers for Canadian Asset Management
- Recent Initiatives and Trends
 - Municipal Government Engagement
- Communicating to Customers:
 1. Asset Management Planning
 - Defining Levels of Service
 - Determining Risk Exposure
 - Quality Rating
 - Benchmarking
 2. State of Infrastructure Reporting – Calgary
- Challenges and Learnings

Recent Canadian Drivers for Asset Management

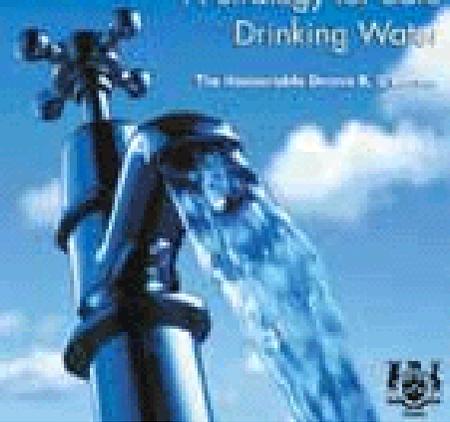


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REPORT OF THE WALKERTON INQUIRY

A Strategy for Safe Drinking Water

The Honourable Dennis R. Austin



Original Artist available from Stock.com





Canadian Asset Management Initiatives & Trends

- Canadian Network of Asset Managers:
 - www.cnam.ca
- National Water / Wastewater Benchmarking Initiative:
 - <http://www.nationalbenchmarking.ca/public/consulting/index.htm>
- InfraGuide:
 - <http://fcm.ca/home/programs/past-programs/infraguide.htm>
- National & Provincial Asset Management Working Groups:
 - British Columbia: <http://www.assetmanagementbc.ca/>
- Trends:
 - Provincial regulation requiring asset and financial management (ex. Ontario Drinking Water Quality Management Standards)
 - Municipal AM program implementation, AM planning (level of service, cost & risk), state of infrastructure reporting, customer engagement, development of national infrastructure strategy, etc.
 - Alignment of financial reporting and asset management = TCA



Municipal Customer Engagement

- 3-1-1 (Citizen Service Center), eGovernment, etc.
- Customer engagement campaigns prior to budget.
- Report state of infrastructure
 - Challenge: Information doesn't necessarily provide direction to service level changes or portfolio investment decisions.
- Complete annual citizen satisfaction surveys:
 - Calgary, 2011: improvement in customer service provision (86% satisfaction rating)
 - Challenge: difficult to link service provision to cost and value to customer.
 - Not sure of exactly the “right questions” to ask customers and the language to use.
 - Do not link budget discussions to customer satisfaction (yet).



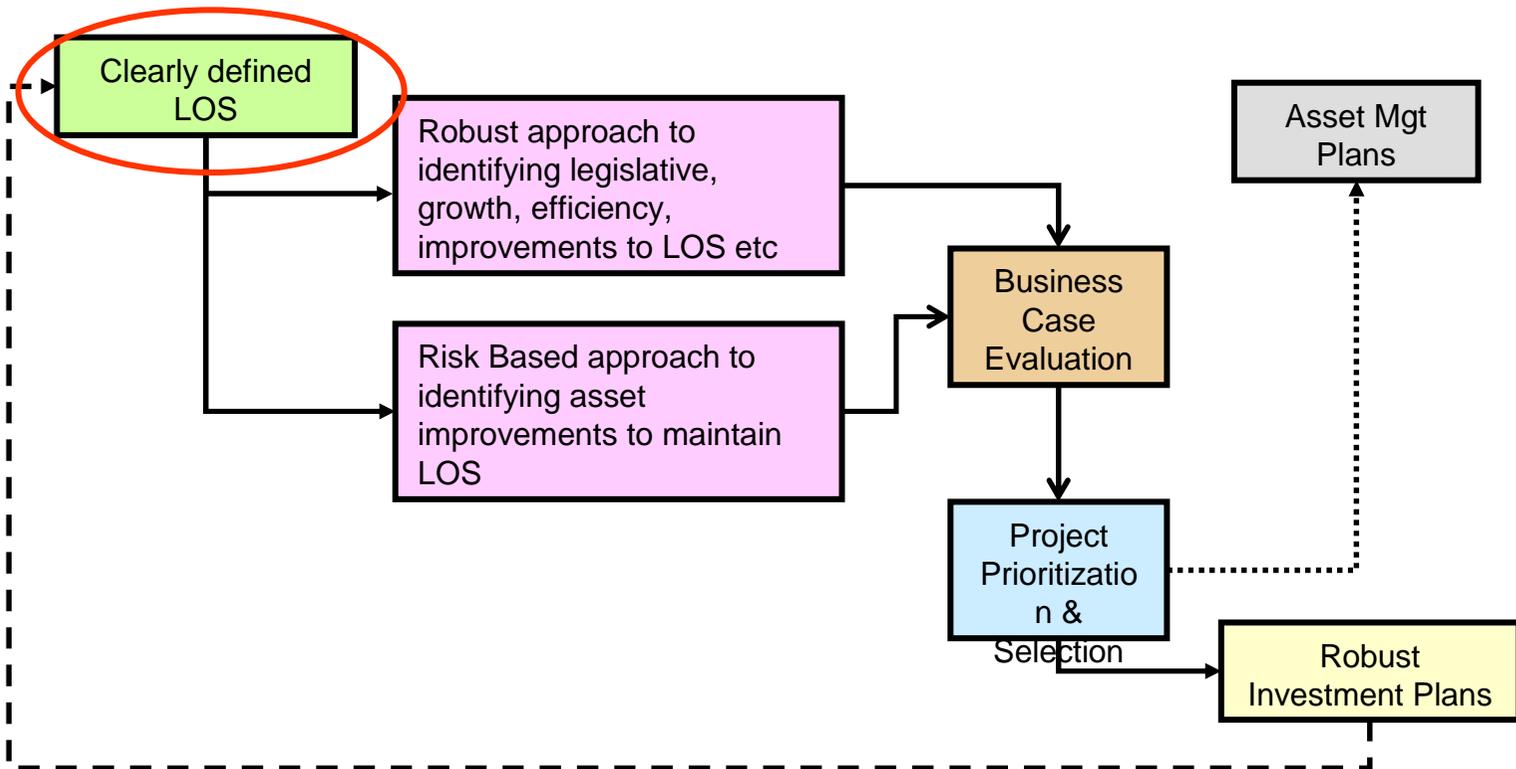
Communicating to Customers

Objective Measures

- Water Services
 - Pressure, Water Quality, Quantity
 - flooding incidents, overflow spills
- Fire
 - Response time
- Roads
 - Pavement Quality Index
- Buildings
 - Facility Condition Index

....But do customer really understand these?
Are these too technical?

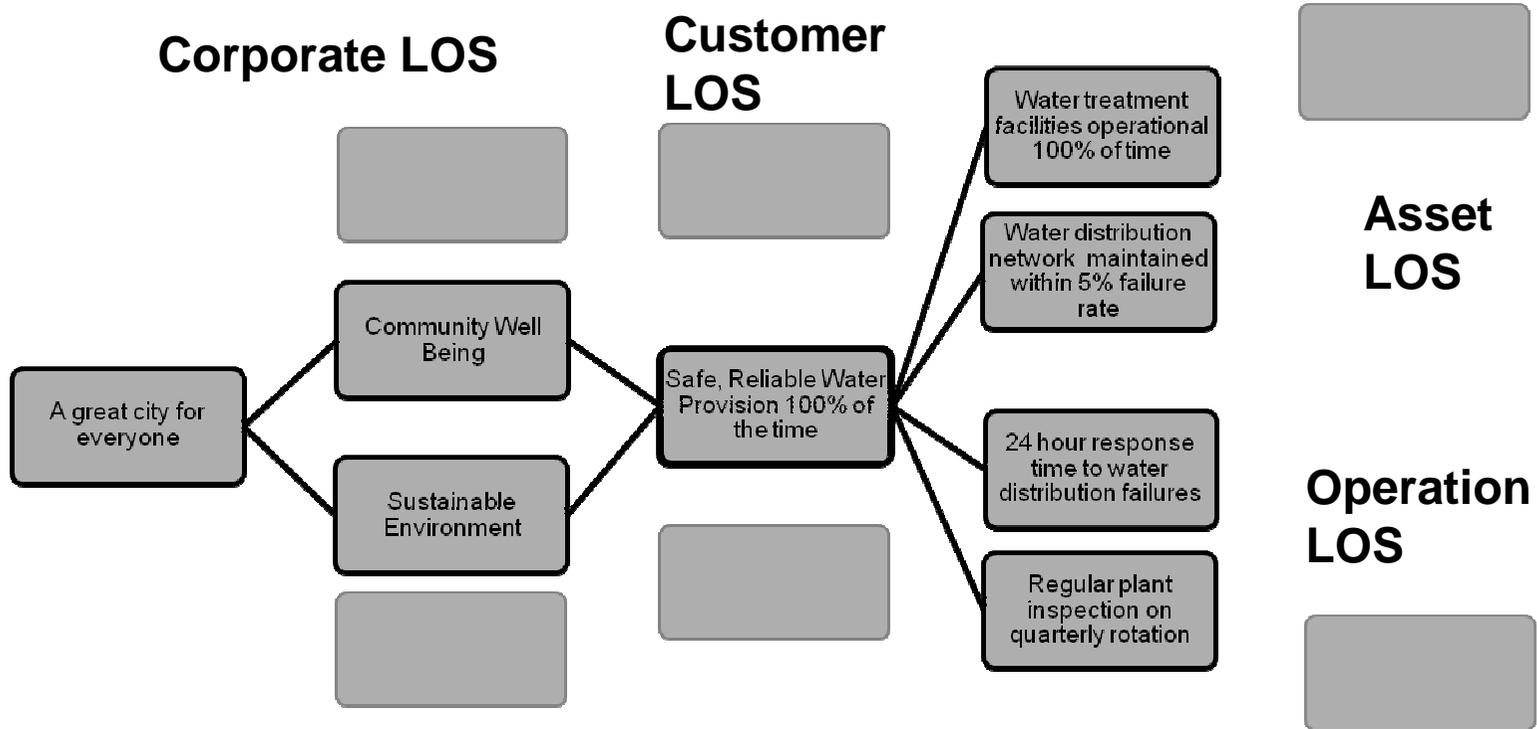
Asset Management Planning: Defining Levels of Service



Investment linked to maintaining or improving specified LOS – *Investment linked to customer outcomes*



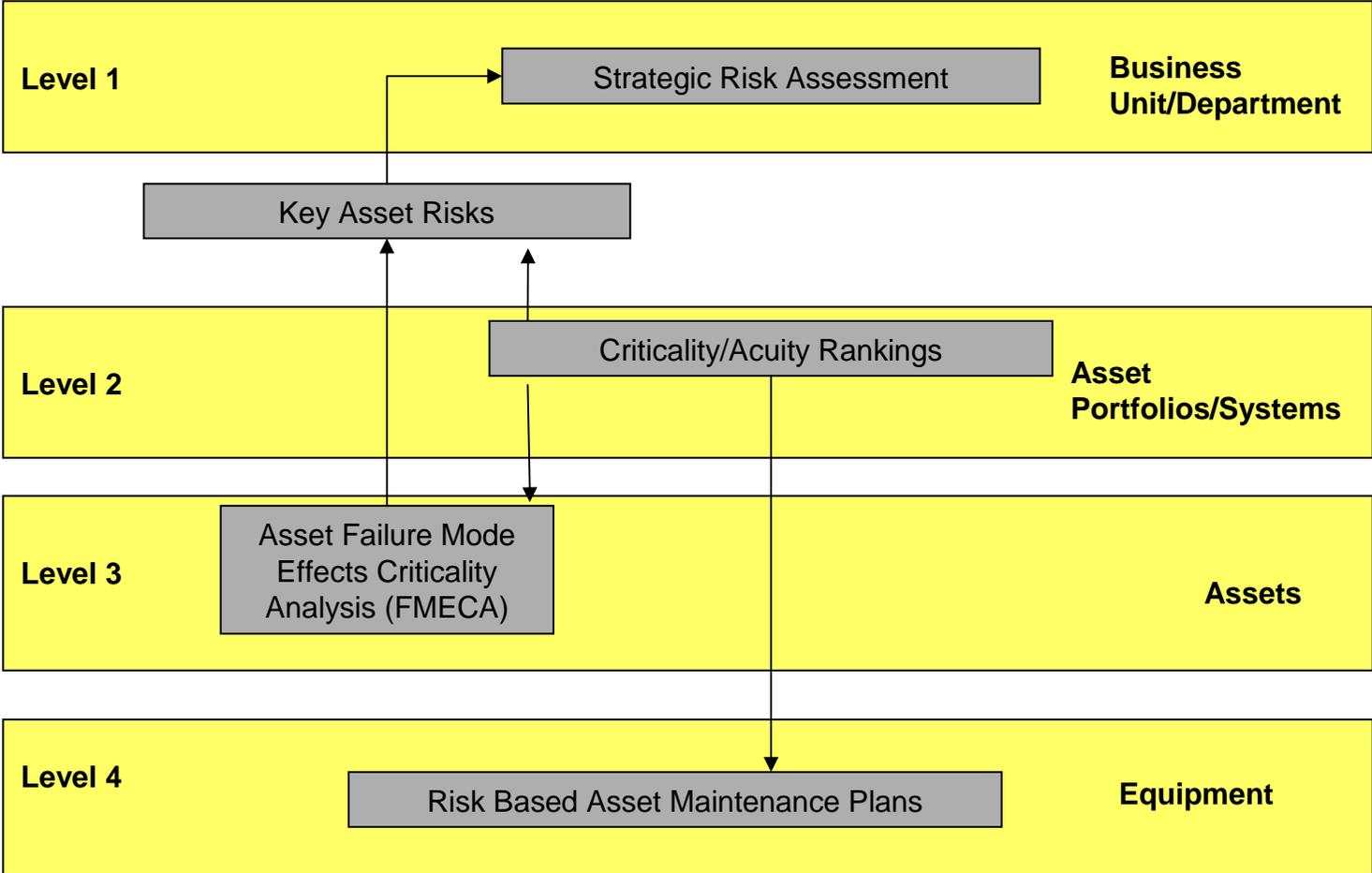
Asset Management Planning: Defining Levels of Service



Understanding service levels is necessary to communicate to customers and to determine cost/resource requirements



Asset Management Planning: Determining Risk Exposure





Quality Rating: Calgary Roads Example



Quality Rating

1. Agree Service Categories & weightings

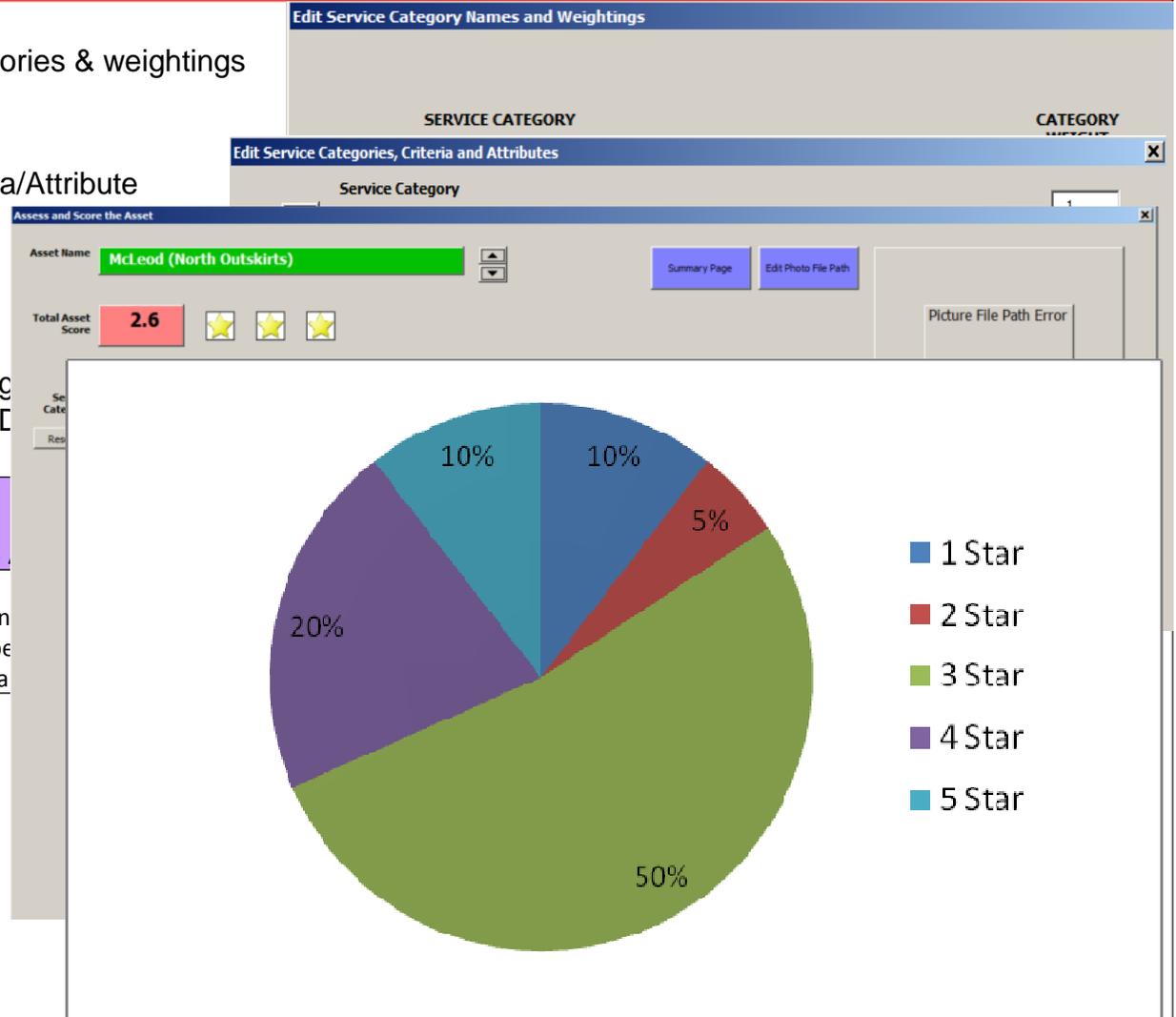
2. Agree Service Criteria/Attribute Weightings

3. Agree Service Categories
Develop 1 - 5 Grades

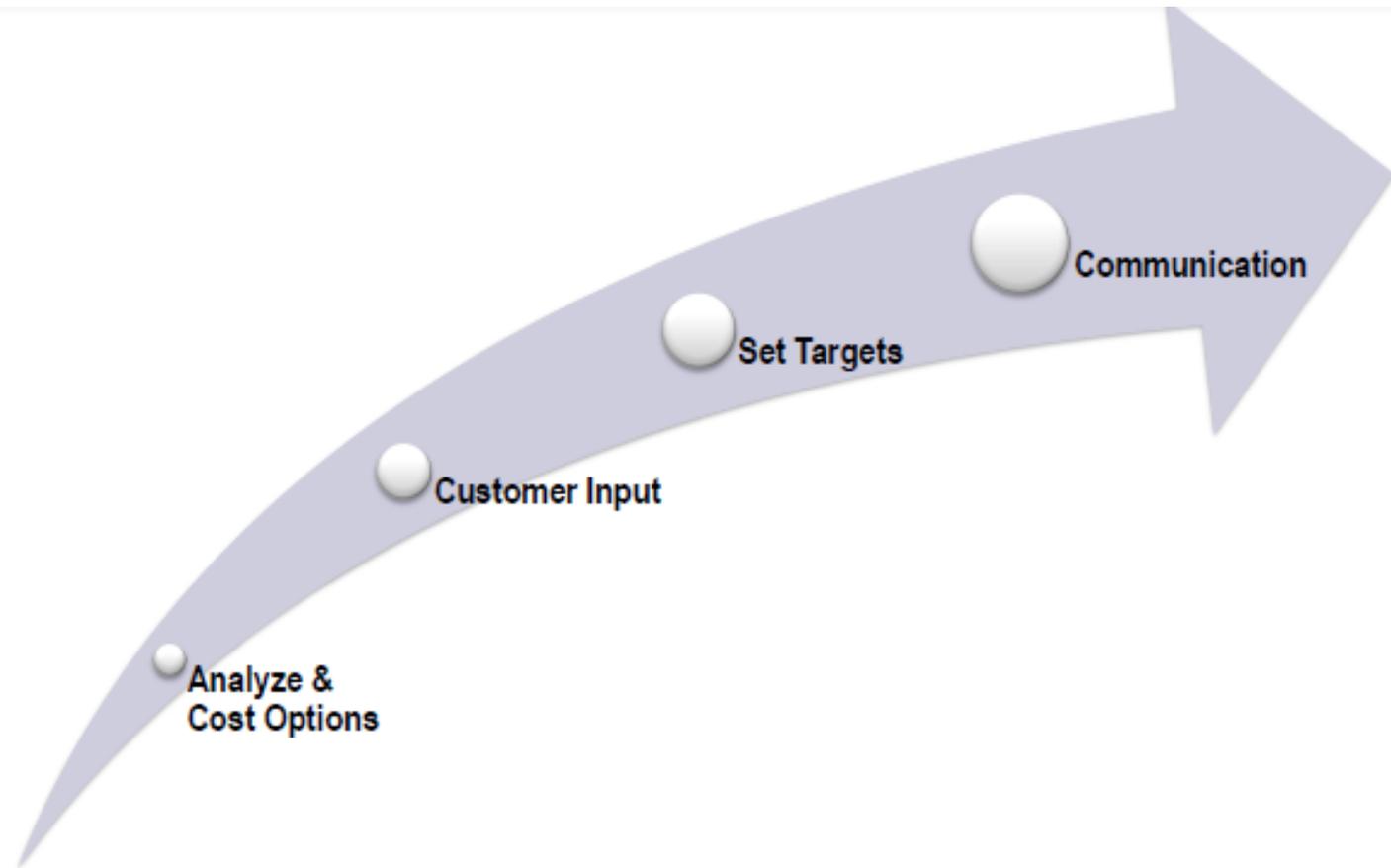
Service Category	Service Criteria/Sub Asset	Service Weighting
Mobility	Pavement / Bridges	No. of lanes per km per maintenance

4. Score Road Segments

5. Results – total, by asset class etc



Communicating to Customers



Performance Measurement & Benchmarking: Calgary Parks

Performance Measure	Target	Methods of Measurement
PLAYGROUNDS: Customer Level of Service rating as affected by the following measures	85% rated 3 or higher	
Safe and in good repair: •% of formal inspections of playground equipment conducted per year	100%	PARIS work orders
Assessed Condition Rating: •% of playground equipment in green or yellow condition	100%	<ul style="list-style-type: none"> • Asset Lifecycle Report • WAM service history

- Service targets / Quality rating used for front-end customer engagement
- Performance measurement from annual citizen satisfaction surveys
- Benchmark service levels, cost, satisfaction: national / international:
 - Ontario Municipal Benchmark Initiative (Canada)
 - Yardstick (Australia)
- Internal benchmarking preferred over external benchmarking

State of Infrastructure Reporting: What do you own and what is it worth?

What do we own and what is it worth?

Current replacement value of assets by business unit***

Business unit	Replacement value – \$billions	Percentage
Civic Partners	0.80	1.33%
Corporate Properties & Buildings	1.46	2.42%
Fire	0.29	0.48%
Fleet Services	0.28	0.47%
Information Technology	0.24	0.40%
Office of Land Servicing & Housing	0.38	0.62%
Parks	1.59	2.63%
Police	0.18	0.29%
Recreation	0.81	1.34%
Roads	12.89	21.38%
Transit	2.42	4.01%
Waste & Recycling Services	0.09*	0.16%
Water Services/Water Resources	33.72	55.94%
Land**	5.14	8.52%
Total	60.28	100.00%

* Does not include landfill cells.

** Not a business unit; multiple City business units are the stewards of land assets.

*** Rounding errors may occur.



State of Infrastructure Reporting: What condition is it in?

Condition of The City's existing infrastructure by value (\$billion and per cent)

	Very good and good	Fair	Poor and critical
Physical condition	43.09 (78%)	8.58 (16%)	3.47 (6%)
Functional condition	50.31 (91%)	3.77 (7%)	1.06 (2%)
Demand condition	49.91 (91%)	4.19 (7%)	1.04 (2%)

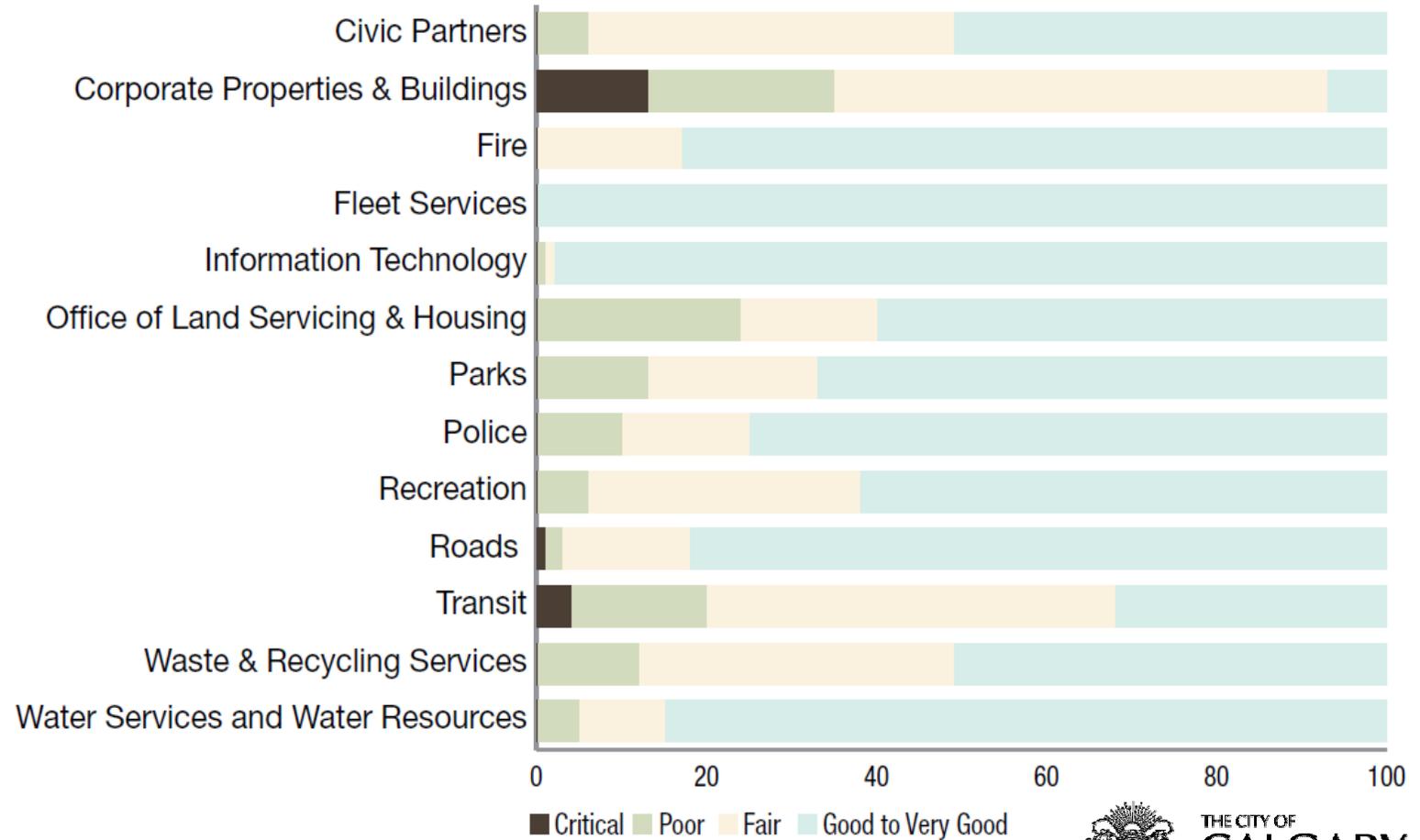
The physical condition of an existing asset is the state of that physical infrastructure that allows it to meet the intended service level based on its original functional and demand criteria.

The functional condition of an existing asset is the state of the design of the physical infrastructure to meet the intended service level as compared to current functional design criteria.

The demand condition of an existing asset is the ability for the capacity of the physical infrastructure to meet the service level required.

State of Infrastructure Reporting: What condition is it in?

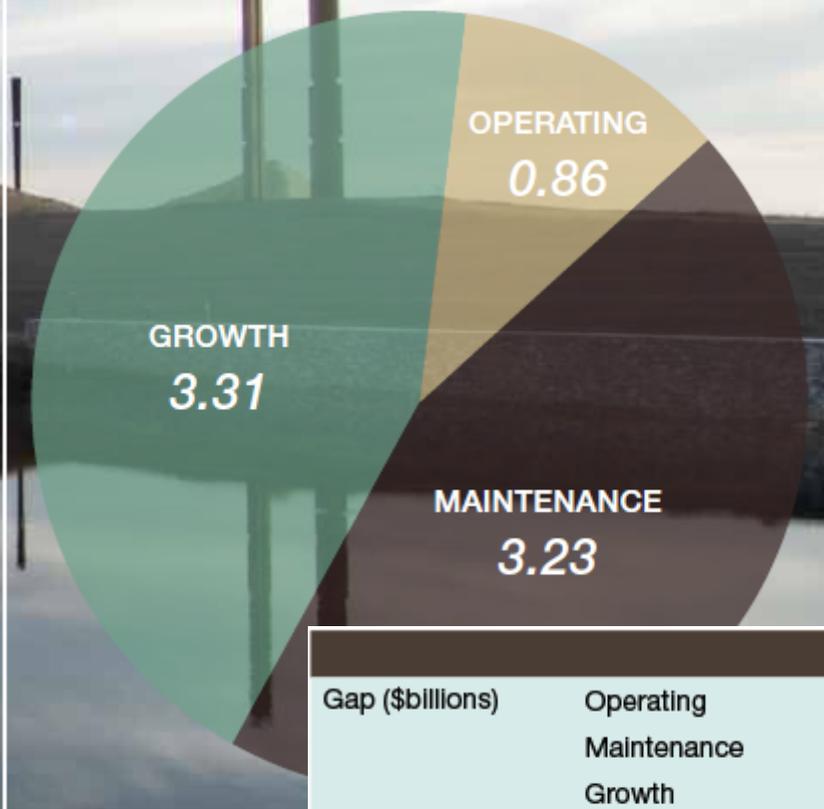
Physical condition by business unit*



*Excluding land.

State of Infrastructure Reporting: 2010 Infrastructure Gap

Infrastructure gap breakout (\$billion)



The infrastructure growth gap has been reduced since 2007, but infrastructure maintenance gap continues to escalate.

		2004	2005	2006	2007	2010
Gap (\$billions)	Operating	0.5	0.7	0.52	0.76	0.86
	Maintenance	2.3	2	1.59	2.67	3.23
	Growth	2.5	2.7	6.04	6.96	3.31
	Total	5.30	5.40	8.20	10.4	7.40
Age (years)	Expected life	68	70	63	65	67
	Remaining life	31	45	30	31	43
Value (\$billions)		27	28	50	54	55



Challenges and Learnings

- No national standards, policy or strategy for water/municipal infrastructure asset management.
- Water conservation efforts, coupled with economy, are reducing revenues and driving need to reconsider service levels.
- Cost of overcoming infrastructure gap is immense: needs new way of looking at problem.
- Tax payers can't relate to the problem: too much money, don't understand technical problems, etc.
- Long term, sustainable solutions are at odds with short term political gains.
- Data rich, knowledge poor.
- Lack of integrated business and technology systems.

Questions?

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