Proposed Levels of Service

Preparing for Compliance with O.Reg 588/17 by July 1st, 2025

March 6, 2025

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O.Reg 588/17 Compliance Requirements for July 1st 2025

Earlier requirements focused on current levels of service, asset conditions, and high-level risk management. The 2025 update requires a forward-looking approach that directly connects risk, lifecycle planning, and financial strategies to proposed levels of service.

Key additions:

- **Proposed Levels of Service** – Define future service targets for each asset category and service
- **Risk Assessment Tied to Service Levels** – Risks must be evaluated in relation to their impact on achieving proposed service levels.
- **Lifecycle Management Strategy** – Plans must detail how assets will be maintained, rehabilitated, and replaced to sustain proposed service levels.
- **Financial Strategy for Service Sustainability** – Outline how asset needs will be funded while meeting service targets over the long term.

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Proposed Levels of Service

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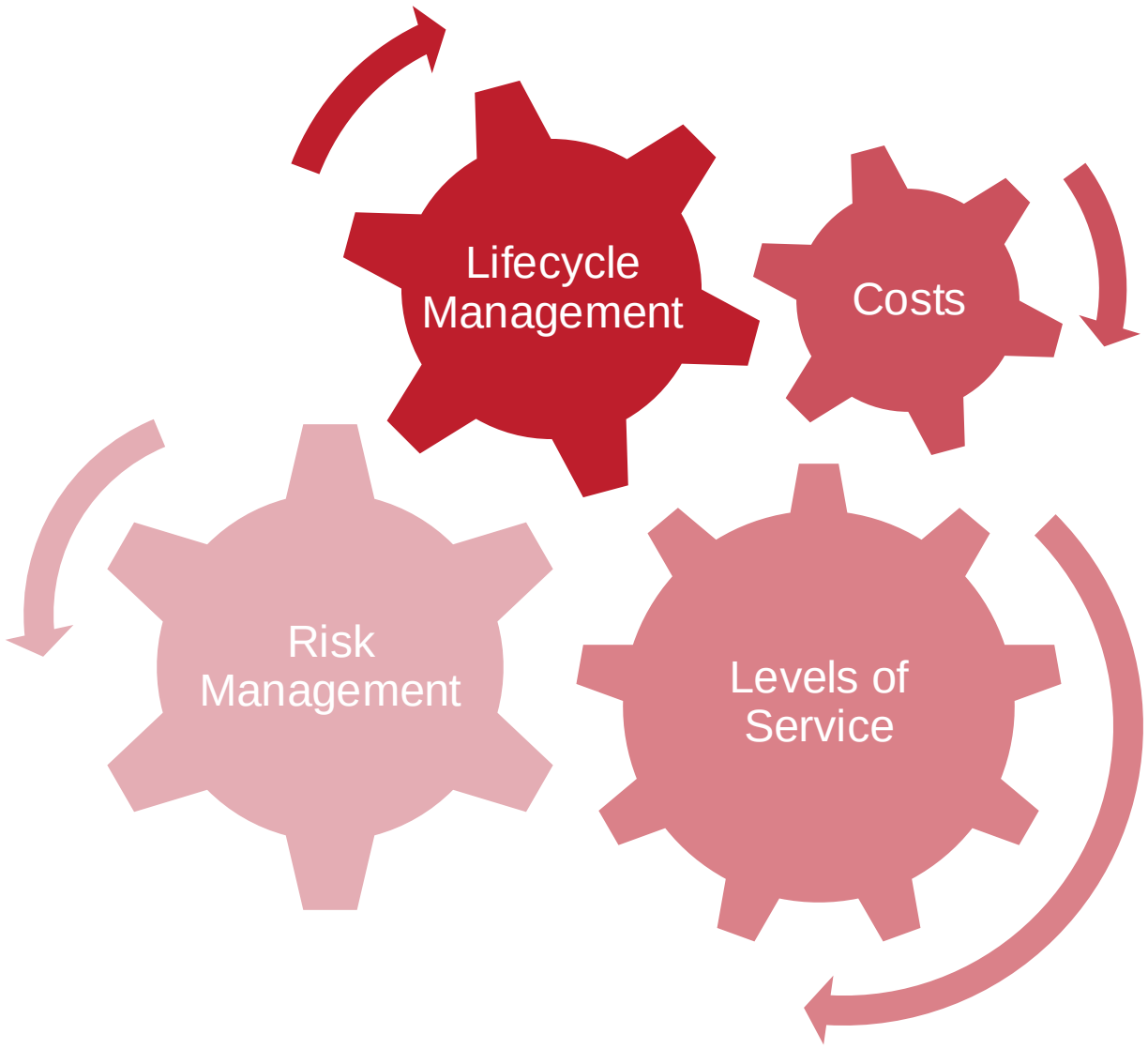
Asset Management Strategy



Each One Impacts the Others

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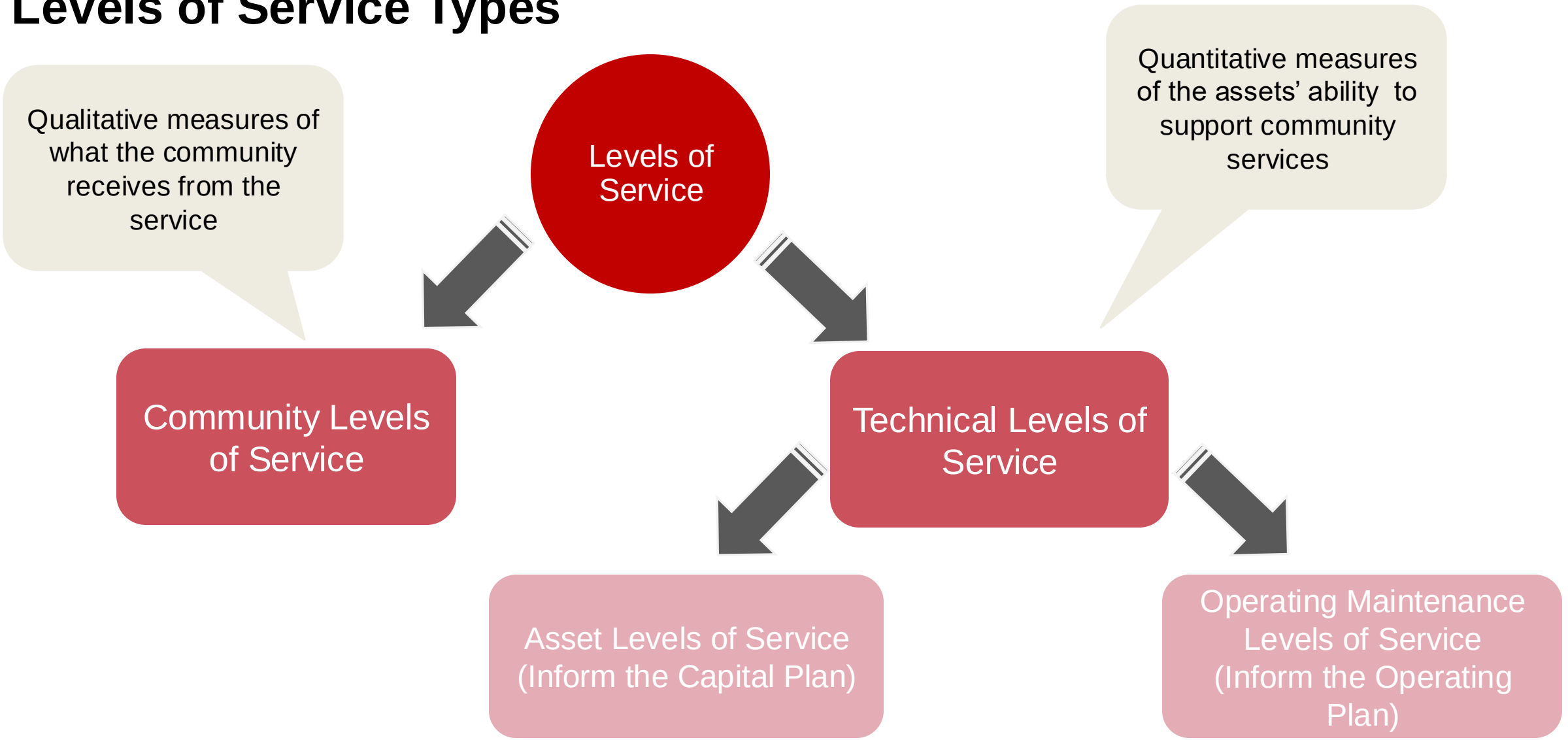
Levels of Service Types



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Current TLOS vs Proposed TLOS

Asset Class	Current TLOS	Proposed TLOS
Groups of like assets serving a similar service function and governed by common LOS measures typically established by industry precedent.	The averaged ratings of all the assets in the asset class. Typically applies only to ALOS.	Targets selected by the municipality to ensure safe, adequate, efficient, effective and accessible services. Used for both ALOS and OMLOS.
Bridges	Average BCI = 65 (Fair)	ALOS: Minimum BCI = 70 (Good) OMLOS: Washed annually
Recreation Facilities	Average FCI = 12% (Fair)	ALOS: Minimum FCI = 5% (Good) OMLOS: Repaint every 4 years

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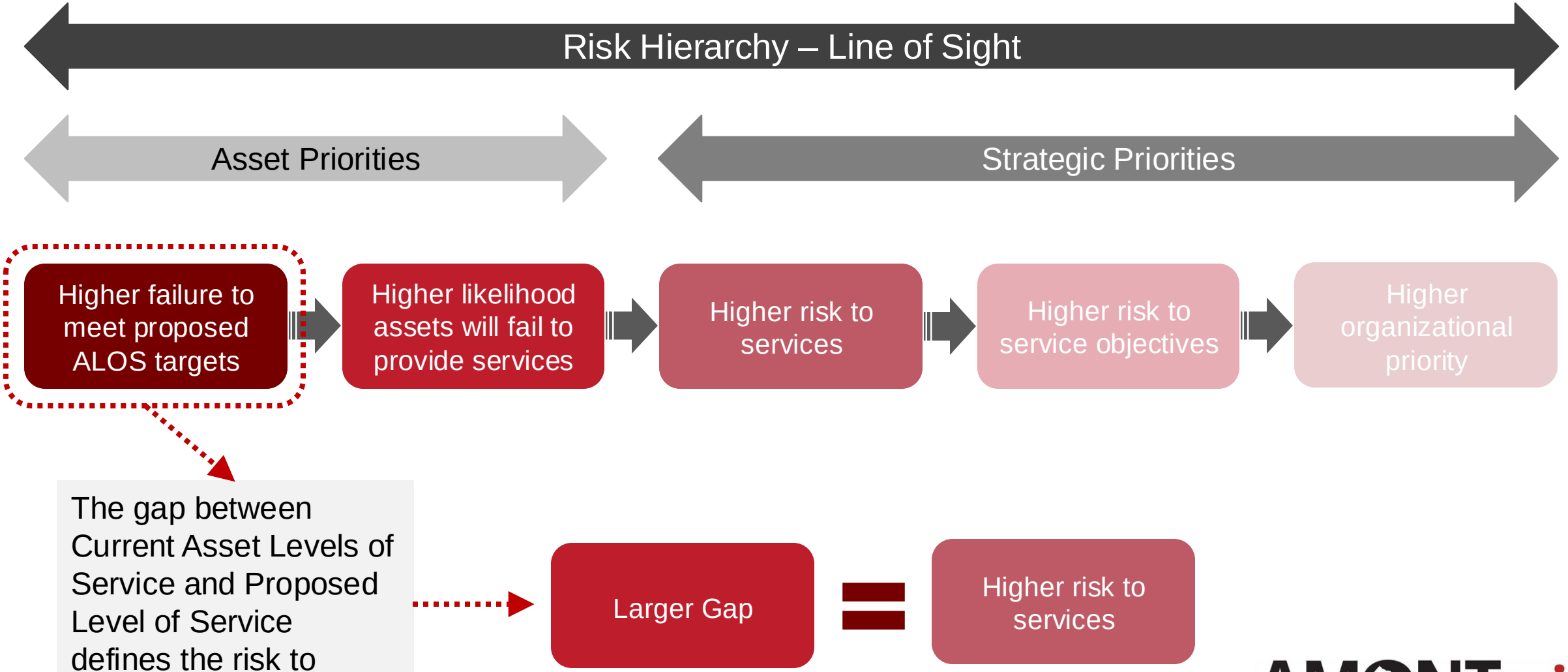
Proposed ALOS informs Enterprise Risk Management



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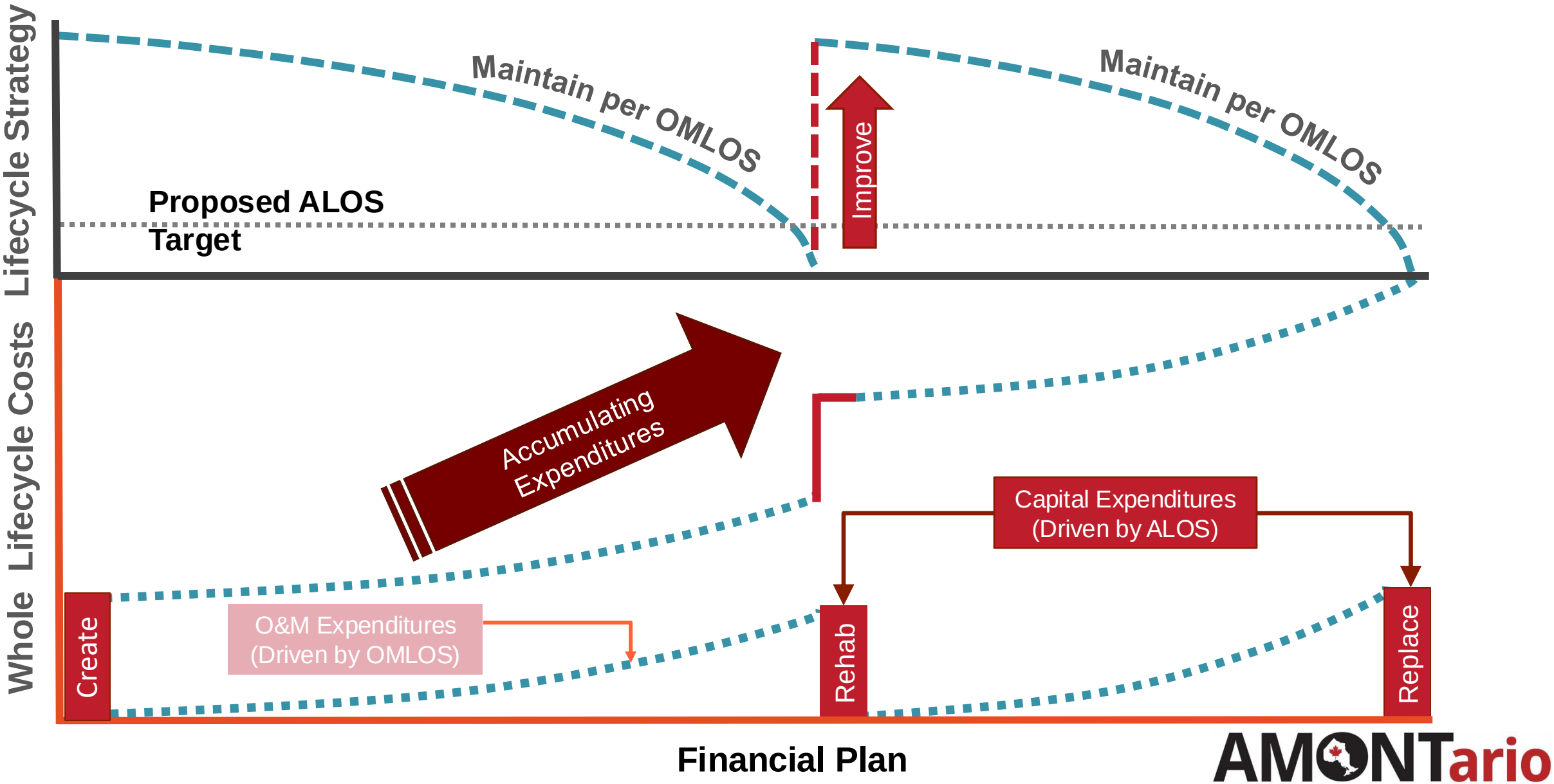
Proposed Levels of Service Drive Financial Planning



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Technical Levels of Service

- Align with strategic service objectives
- Applied consistently across the asset class to measure each assets' ability to provide services
- Maximize asset value
- Provide multifunctional uses for planning & decision making
- Are simple, outcome-based & few as possible
- Use industry precedent & regulations as much as possible when defining LOS

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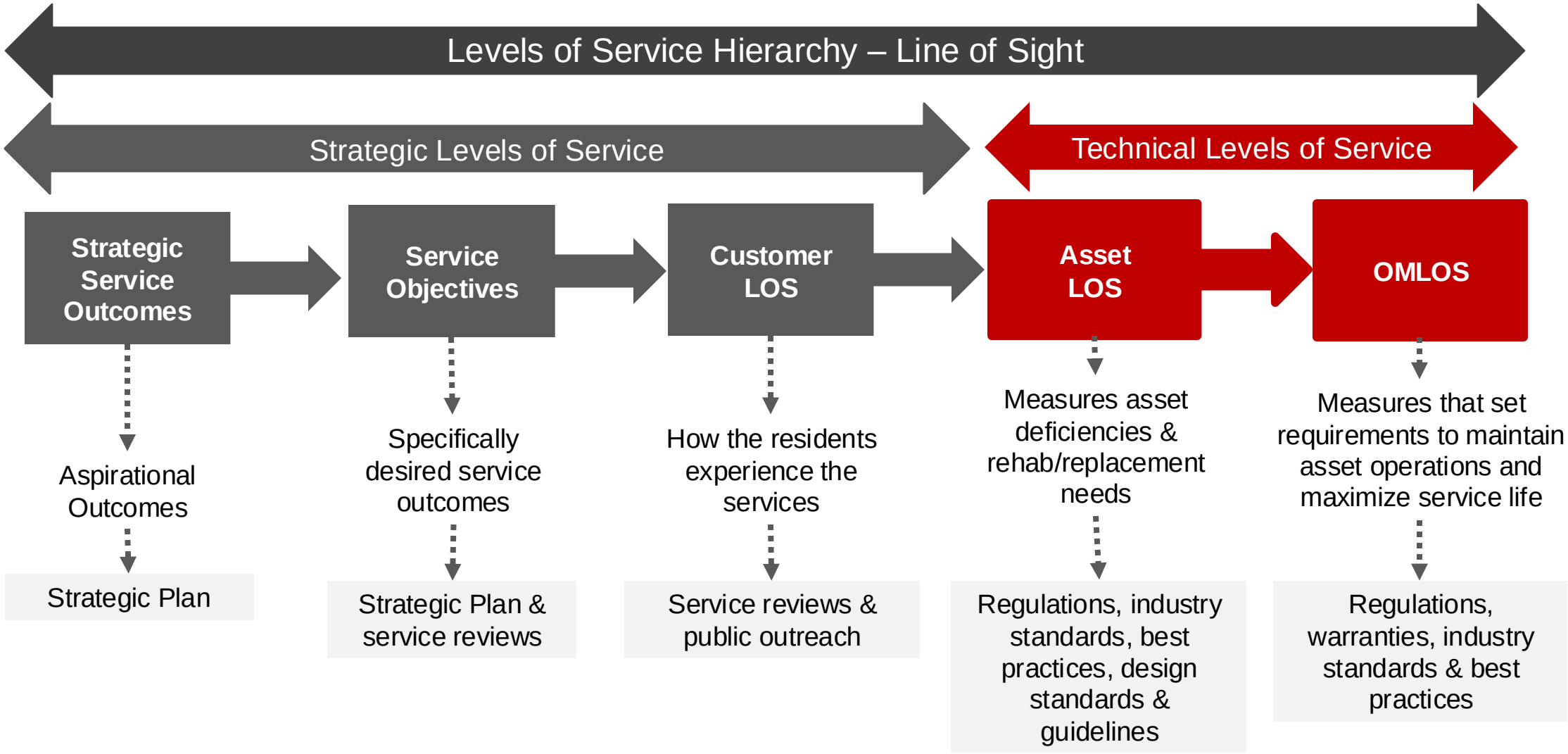
Connecting Service Objectives to Asset Requirements



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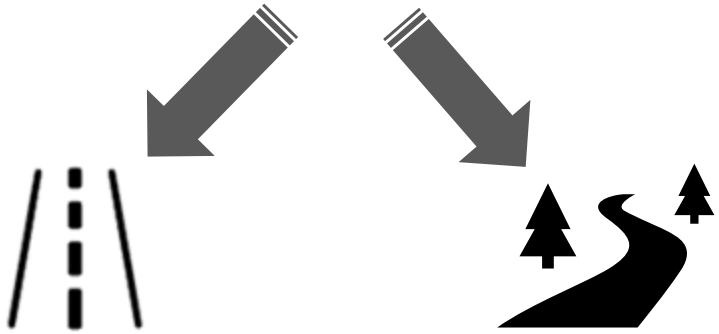
Proposed Levels of Service – Roads

Roads → CLOS → Proposed TLOS

CLOS: A safe, reliable road network that is accessible year-round

Proposed TLOS: ALOS, OMLOS



Condition
Proposed PCI =70 (Good)

Performance
Properly designed geometrics, sightlines and platform width per Geometric Design Standards for Ontario Highways

Repairs, maintenance and inspections meet Provincial Minimum Maintenance Standards

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Proposed Levels of Service – Water

Water → CLOS → Proposed TLOS

I receive adequate, reliable, clean water

ALOS

Condition
Maximum 2 breaks per pipe section per Council directive

Performance
Sufficient Capacity per MOE Design Guidelines

OMLOS

Flush cul-de-sacs and dead ends annually

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AMONTario Level of Service Template Example: Water

Service	Program Service Objectives	Community Levels of Service	Service Division	Supporting Asset Classes	Technical Levels of Service										
					Asset Levels of Service Description (by Asset Class)	Proposed Target	Current Asset Levels of Service							Operating Maintenance Levels of Service		
							Asset Class Average	Distribution by Asset Rating						Activity	Current LOS	Target LOS
								%	%	%	%	%				
Water	Safe, reliable and efficient potable water services	Consistent and reliable water supply	Distribution	Pumping Stations	**Condition**			**Condition**								
					Mechanical Process Systems	Good	Fair		20	80				Vibration Testing	Every 5 years	Every 2 years
					Electrical Process Systems	Good	Fair		10	80	10			Major Equipment Inspection	Every 2 years	Annually
					Distribution Civil Assets	Good	Fair	10	10	70	10			Standby Generator Testing	Annually	Annually
		The system is efficiently designed and managed			**Performance**			**Performance**								
					Operational Functionality	Good	Fair	2	66	5	22	6				
					Capacity to Meet Demands	Good	Good		80	10	10					
					Operational Resiliency	Good	Fair		71	7	15	6				
					Environmental Resiliency	Good	Good		100	50	50					
		The system is efficiently designed and managed		Treated Water Storage	**Condition**			**Condition**								
					In-ground Storage Cells	Good	Fair			80	20			Condition Inspection	Annually	Annually
		The water system is kept in good condition			**Performance**			**Performance**								
					Operational Functionality	Good	Good		60	40						
					Capacity to Meet Demands	Good	Fair		40	60						
					Operational Resiliency	Good	Good		100							
					Environmental Resiliency	Good	Good		100							

Performance Ratings and Corresponding Likelihood of Failure

VERY GOOD	GOOD	FAIR	POOR	VERY POOR
- Exceeds or fully meets performance requirements. - No affect to services	- Meets performance requirements. - No affect to services	- Just meets performance requirements with some limitations - Possible minor affects to services.	- Does not meet several performance requirements. - Minor to moderate and/or sporadic affects to services	- Does not meet many or most performance requirements. - Moderate to significant and/or ongoing affects to services.
Likelihood of Failure Very Unlikely	Likelihood of Failure Unlikely	Likelihood of Failure Possible	Likelihood of Failure Likely	Likelihood of Failure Very Likely or Certain

Technical Levels of Service vs Key Performance Indicators

Technical Levels of Service		Key Performance Indicators (KPIs)
ALOS	OMLOS	
Measures used to assess the state of each asset and to identify specific deficiencies and capital needs.	Measures of the regular ongoing activities to keep assets properly operating and/or maximize service life.	Measures the outcomes of Technical Levels of Service Targets
Proposed Condition ALOS: Minimum condition of Storm Sewer Pipes must be PACP 3 (Fair) or better. ***Decision:*** *All pipes below PACP with PACP = 4 or 5 ('Poor' or 'Very Poor') need relining or replacement to mitigate potential failures.*	**Proposed OMLOS:** Condition assessments are performed on 10% of the stormwater sewer network each year. ***Decision:*** *Are the pipes being inspected frequently enough to mitigate potential failures?*	Percentage (%) of stormwater sewer assets in 'Fair' condition or better. ***Decision*****:** *How are we progressing toward meeting proposed ALOS and OMLOS targets?*
Proposed Performance ALOS: Sufficient urban road storm sewer capacity to accommodate a 5-year storm event. ***Decision:*** *All pipes with less than 5-year storm capacity need upgrading to mitigate excessive overland flooding.*	**Proposed OMLOS:** Inspect and clean catch basins every 2 years. ***Decision:*** *Are catch basins being inspected and cleaned frequently enough to ensure proper operation to mitigate excessive overland flooding?*	Number of road flooding occurrences during 5-year or less storm events. ***Decision:*** *How are we progressing toward meeting proposed ALOS and OMLOS targets?*

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Selecting Effective Proposed Asset Levels of Service

- **A good proposed Condition Asset Level of Service**

  - ***"Maintain recreation facilities at a facility condition index of 5% (Good) or better"***

    - Decision outcomes:
      - Sets a clear target that states that every facility not meeting an FCI of 5% or better requires capital upgrades
      - Provides a measure for determining the risk at each facility
      - Uses a common industry measurement
      - Says to the community that safe, efficient and accessible facilities are important to the municipality

- **A poor proposed Condition Asset Level of Service**

  - ***" Maintain the average FCI of the recreation facility portfolio at 5% (Good)***

    - Decision Outcomes: Incomplete
      - Does not state or require that all buildings need to be to the same standard (some can be "Very Good", and some can be "Very Poor but the proposed ALOS is met if the average is 'Good')
      - Does not say to the community that all buildings are valued equally and maintained to the same standard
      - Potentially understates the portfolio needs and risks complicates decisions.

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Selecting Effective Proposed Operating Maintenance Levels of Service

- **A good proposed Operating Maintenance Level of Service**
  - ***"Public spaces in recreation facilities are cleaned daily"***
  - ***"The interior of the facilities are painted every 4 years"***
  - ***"Critical systems are inspected and/or tested monthly"***

    - Decision outcomes:
      - Defines the specific operating activity and frequency
      - Sets a benchmark against which to evaluate, calculate and validate operating costs
      - Says to the community that safe, clean and appealing facilities are important to the municipality

- **A poor proposed Operating Maintenance Level of Service**
  - ***"Maintain the average operating costs of the recreation facilities at $X per square metre"***
    - Decision Outcome: Unclear
      - Does not set specific activities or targets necessary to maintain facilities at desired service levels or costs.
      - Does not provide the transparency to analyze what is driving costs and what to adjust to manage costs
      - Does not state what is valuable to the customer (safe, clean, appealing facilities)

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LOS and Decision Outcomes – Recreational Facilities

	Service Objectives	Community LOS	Proposed Asset LOS	Proposed Operating Maintenance LOS

Measures	*"Welcoming, accessible recreational services that meet the needs of the community"*
	Measured by:
	• Bookings & registrations
	• Rentals & space utilization
		"The recreation centres provide affordable services that the community wants"
		Measured by:
		• Registration levels
		• Demand for new services
		• Space utilization
			• Facility **condition** using FCI
			• Facility **performance**:
			  • Adequacy of space
			  • Flexibility of space uses
			  • Efficiency & capacity of HVAC, electrical, water & sewer
				• Regular facility inspections
				• Minor maintenance routines (cleaning, painting)
				• Inspection & testing of emergency/critical systems

Targets	• Minimum space utilization = X% / year
	• Minimum Fee collection = X% of operational costs
		Bookings and registrations for programs and services = a minimum of X % of capacity space and program capacity	• **Condition:** FCI = 5% (Good) or better
			• **Performance:**
			  • Facility Spaces = Good
			  • Facility Systems = Good
				• Annual condition inspections
				• Clean weekly, paint annually
				• Test/inspect critical systems monthly

Decisions	Are we meeting strategic goals?	Are we meeting community service expectations?	Which facilities require capital upgrades and what are the costs to support service expectations?	Are the annual operating activities and costs appropriate and sustainable for supporting service expectations?

Tips for Selecting Technical Levels of Service

- Critical assets should be given higher LOS targets
  - i.e. use measures that equate to “Good”

- Use precedent as much as possible when selecting measures and targets:
  - Industry standards and guidelines
  - Regulations
  - Best practices

- Focus on selecting effective Technical Levels of Service
  - Avoid using design criteria: too numerous and detailed
  - Measures must have a clear relationship between the assets and services
  - Should lead to effective decision outcomes
  - Avoid KPIs

- The measures can be applied consistently to each asset in the asset class
  - Strong enough to detect critical deficiencies in the asset portfolio

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AMONTario Levels of Service Strategy

Asset Levels of Service	Measurement Attributes Using Industry Measures, Ministry Design Guidelines, Regulations, & Other Precedents	Proposed ALOS Targets
Condition	Physical state of the asset measured by condition rating systems: • PCI, BCI, FCI, PACP, “Very Good” to “Very Poor,” etc.	Use measures that equate to “Good” or “Fair” depending on asset criticality
Operational Functionality	• Efficiency and effectiveness of service delivery. • Ability to meet minimum current design and/or safety requirements. • Level of operational problems experienced and whether they affect community services. • Compliance with current Regulations and/or Standards (including the level of “grandfathering”). • Whether all required elements are present. • Relevance and effectiveness of technology. • Efficiency of resource consumption.	
Capacity to Meet Demands	• To what degree capacity satisfies current demands and minimum community service levels. • Level of operational problems experienced. • Are there noticeable negative impacts on community service levels or stakeholders.	
Operational Resiliency	• To what degree minimum service requirements are maintained/protected with back-up systems, spare capacity, or alternative supply. • To what extent the assets are secure from acts of vandalism, trespassing, theft, assault, or terrorism.	
Environmental Resiliency	• To what extent the assets are resilient to environmental stresses; e.g., impacts from wind, fire, flooding, excessive rainfall/snowfall, etc. • To what extent are the assets are made resilient to the impacts of climate change.	

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Asset Levels of Service	Predominant Community Service Outcomes					
	Health & Safety	Reliability	Quality	Quantity	Efficiency	Accessibility
Condition	X	X	X	X	X	X
Operational Functionality	X	X	X		X	X
Capacity to Meet Demands	X	X	X	X	X	X
Operational Resiliency	X	X				X
Environmental Resiliency	X	X				X

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AMONTario Levels of Service and Risk Management Strategy

Asset Level of Service and Corresponding Likelihood of Failure							
Condition Levels of Service				**Performance Levels of Service**			
ALOS Measures	**Corresponding Likelihood of Failure Measures**			**ALOS Measures**		**Corresponding Likelihood of Failure Measures**	
Varies by asset type and rating method.	**Likelihood of Failure Ratings**	**Estimated Timeframe**	**% Likelihood of Failure**	Operational Functionality Capacity to Meet Demands Operational Resiliency Environmental Resiliency	**ALOS Rating**	**Likelihood of Failure Ratings**	**% Likelihood of Failure**
Very Good to Good	Very Unlikely	>20 yrs.	<10%		Very Good	Very Unlikely	<10%
Good to Fair	Unlikely	11-20 yrs.	10%-30%		Good	Unlikely	10%-30%
Fair to Poor	Possible	6-10 yrs.	30%-60%		Fair	Possible	30%-60%
Poor to Very Poor	Likely	1-5 yrs.	60%-90%		Poor	Likely	60%-90%
Very Poor	Very Likely or Certain	<1 yr.	>90%		Very Poor	Very Likely or Certain	>90%

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Thanks!

Troy Mander
troymander@amontario.ca

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