



Advancing Levels of Service in the Context of Uncertainty Halifax Water Overview

**STRAIGHT from
the SOURCE**



Measuring Performance – the Corporate Balanced Scorecard

Organizational Indicators	2019/20 Results	2020/21 Target	2021/22 Target
High Quality Drinking Water			
1 Adherence with 5 objectives of Water Quality Master Plan for all water systems - Percentage of sites achieving targets	82	80-100/100	80-100/100
2 Bacteriological tests - Percentage free from Total Coliform	99.9%	99.3%	99.3%
3 Customer satisfaction about water quality - Percentage from customer survey	87%	85%	85%
Service Excellence			
4 Customer satisfaction with service - Percentage from customer survey	96%	90%	90%
5 Water service outages - Number of connection hours/1000 customers	133	200	200
6 Wastewater service outages - Number of connection hours/1000 customers	1.64	8	8
7 Average speed of answer - Percentage of calls answered within 20 seconds *Revised in 2019/20. Was previously average call wait time.	32%	70%	70%
Responsible Financial Management			
8 Operating expense/revenue ratio percentage	0.780	0.838	TBD
9 Annual cost per customer connection – Water	\$469	\$522	TBD
10 Annual cost per customer connection – Wastewater	\$718	\$721	TBD
Effective Asset Management			
11 Water leakage control – target leakage allowance of 160 litres/service connection/day	176	160-170	TBD
12 I&I reduction - Number of inspections to identify private property discharge of stormwater into the wastewater system *Note 1	1086	*recommended target	TBD
13 Peak flow reduction from wet weather management capital projects *New in 2019/20 *Note 2	Data is not available	34-38 L/sec	34-38 L/sec
14 Percentage of time GIS and Cityworks are available	99.88%	96-98%	96-98%
15 Capital budget expenditures - Percentage of budget spend by end of fiscal year *Note 3	69%	80-90% approved	80-90% approved

Notes:

1. I&I reduction – Halifax Water is considering changes to this OI based on discussions with a NSUARB consultant.
2. Peak flow reduction from wet weather management capital projects was a new OI in 2019/20. The NSUARB approval of the capital project was delayed in 2019-20 so the project carries forward to 2020/21.
3. The data used to calculate the percentage of capital budget spend by end of fiscal year is going through a quality assurance process, and the final result will be available prior to the June 25, 2020 Board meeting.

Organizational Indicators	2019/20 Results	2020/21 Target	2021/22 Target
Workplace Safety & Security			
16 Average score on internal safety audits *New in 2019/20	98%	85-95%	85-95%
17 NS Labour and Advanced Education compliance - # of Incidents with written compliance orders	0	0-2	0-2
18 Lost time accidents - Number of accidents resulting in lost time per 100 employees	1.6	2.0-3.0	2.0-3.0
19 Safe driving - Number of traffic Accidents per 1,000,000 km driven (maximum of 5)	4.2	4	4
20 Training - Number of employees trained or re-certified before due date	81%	80-90%	80-90%
21 Percentage of completed safety talks	81%	80-90%	80-90%
Regulatory Compliance			
22 Percentage of public health and environmental regulatory infractions resulting in a summary offense ticket, ministerial order, or prosecution *Note 4	0 SOTs 4 Warnings 7 Directives	0-2	0-2
23 Percentage of WWTFs complying with NSE approval permits	91.2%	95-100%	95-100%
Environmental Stewardship			
24 Number of ICI properties inspected by Pollution Prevention each year	500	440 *recommended target	TBD
25 Energy management kwh/m ³ reduction associated with capital projects	4.67%	3%	TBD
26 Bio-solids residual handling - Percentage of sludge meeting bio-solids concentration targets	99.2%	92-97%	92-97%
Motivated & Satisfied Employees			
27 Number of arbitrations divided by total number of grievances	0.07	0	0
28 Percentage of jobs filled with internal candidates	65%	80%	80%
29 Employee satisfaction survey result	B+	A-	A-
30 Average number of days absenteeism *Note 5	7.54	<7	<7

4. Percentage of public health and environmental regulatory infractions resulting in a summary offense ticket (SOT), ministerial order, or prosecution – Halifax Water's activities have not changed; however, the tools in which NSE uses to manage permits and corrective actions has.
5. Average number of days absenteeism results for 2020/21 and 2021/22 may be impacted by COVID-19.



Cross Corporate Collaboration

Success with the CBS via Cross Corporate staff:

- development of Mission, Vision and Organizational Indicators
- direct participation in annual success of all Organizational indicators
- sharing of success through financial reward

Opportunity to leverage similar collaboration and success with Asset management:

- participation on Asset Management Implementation Teams (AMIT)
- full executive review and endorsement of Asset Management Plans (AMP)



Level of Service (LOS)

- Connects day to day activities with organization's mission and vision
- Provides basis for service level planning and decision making
 - Set targets for desired state
 - Inform actions that support service objectives and sustainability
 - Measure progress and trends
 - Enables performance measurement and accountability
 - Identify gaps in current and desired service expectations
 - Enable stakeholder engagement



When considering LOS for your organization, ask:

- Who are you serving?
- What will impress them with the service?
- How will you know if you've served them well?
- What can you realistically deliver?
- What can you afford?



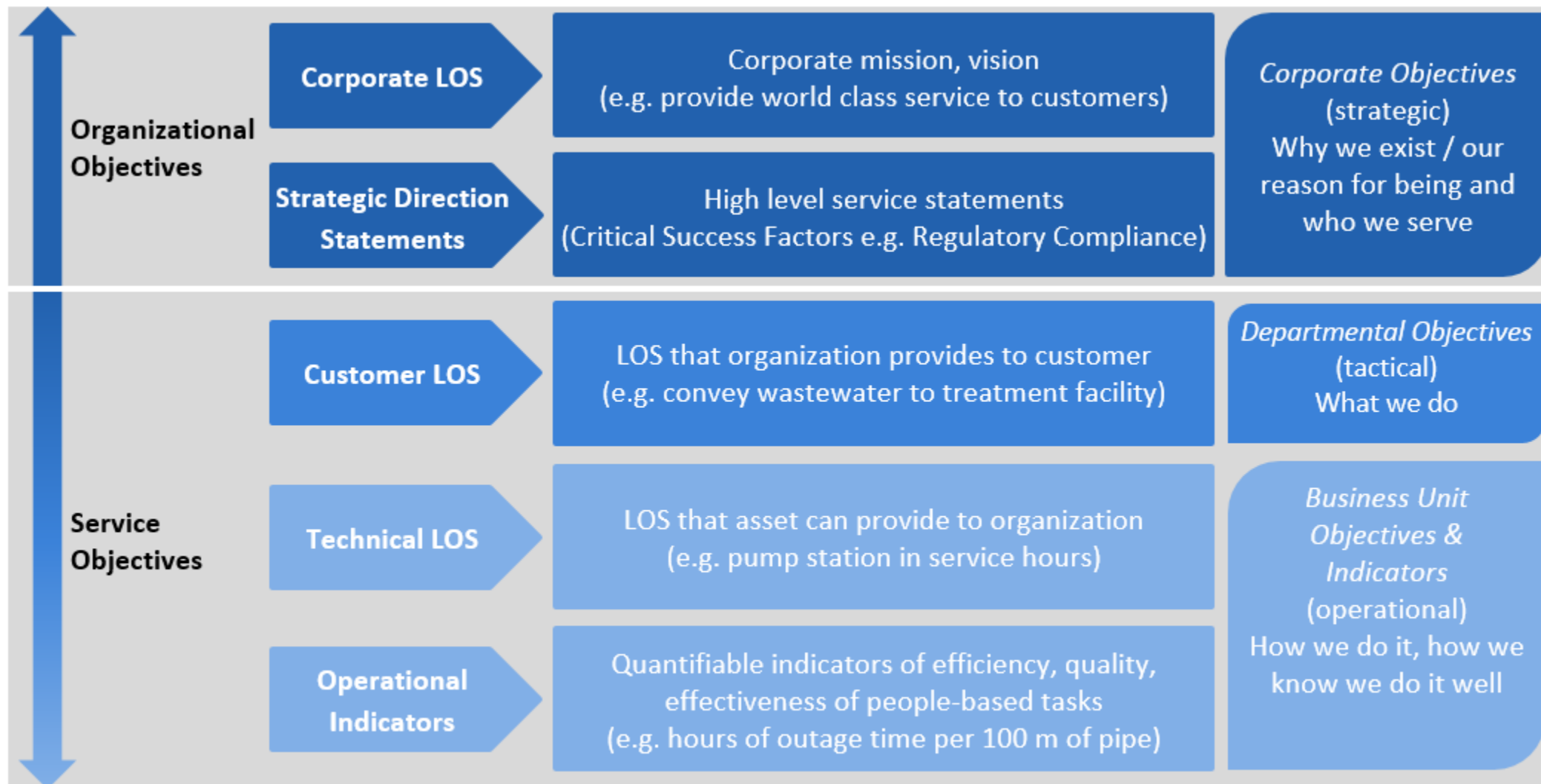
Connection to Corporate Purpose



- Relationship to Halifax Water mission, vision, critical success factors
- Hierarchy
 - Customer LOS
 - Technical (or asset) LOS
 - Operational indicators

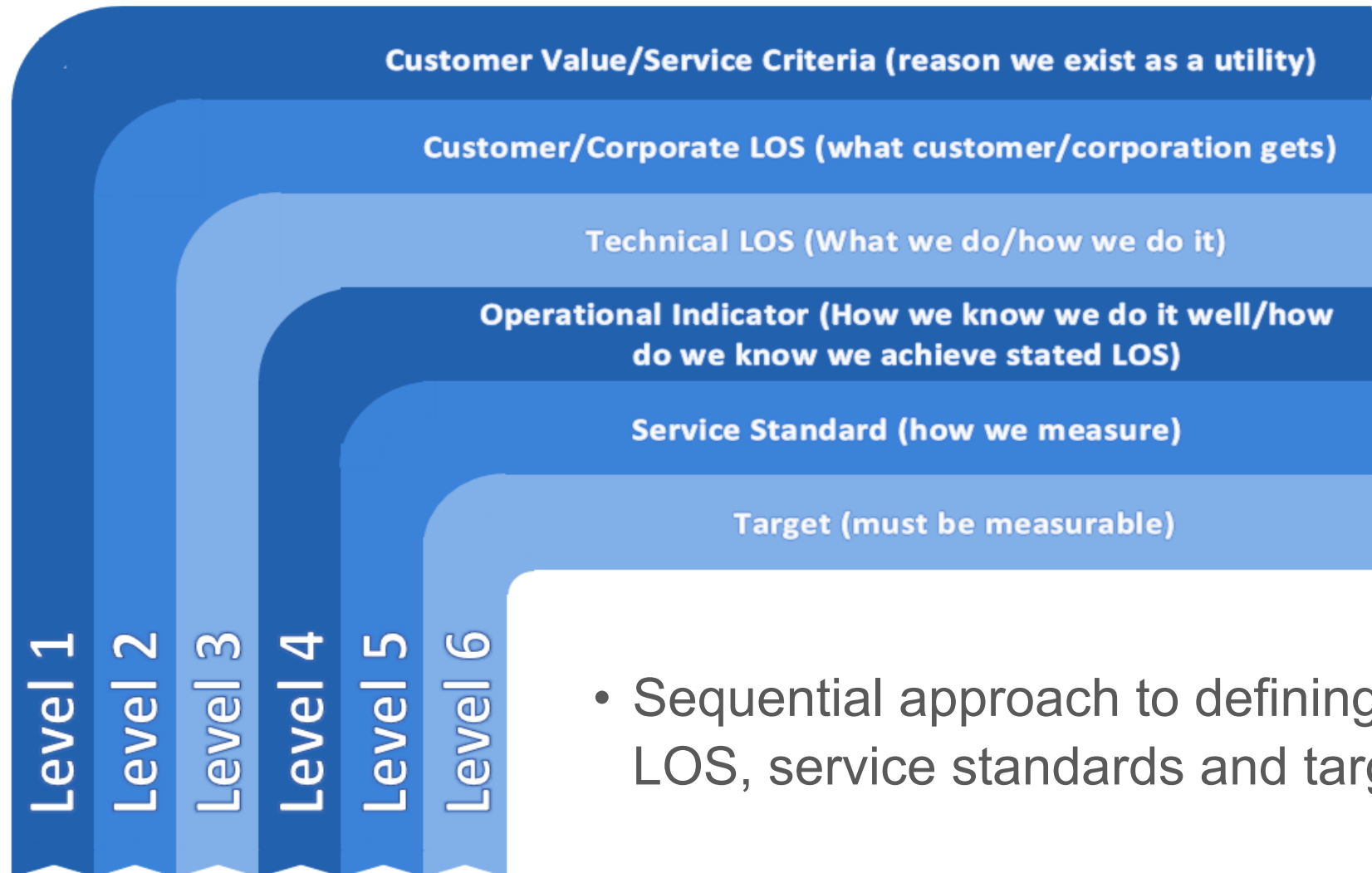


High Level LOS Review



Source: Adapted from Asset Management Awareness Workshop, slide 70 (Canadian Network of Asset Managers, 2020)

Halifax Water LOS Framework



- Sequential approach to defining LOS, service standards and targets

Customer Value / Service Criteria Definitions

Customer Value / Service Criteria	Definitions
Quality Water	Products and services meet regulatory and aesthetic expectations for all waters (drinking water, wastewater, surface water)
System Performance	Products are available when customer needs them at amount, pressure, and time identified in standards
Service Value	Products are delivered cost-effectively while meeting regulations and customer values / service criteria
Customer Service	Customer receives quality services, is assured information privacy, and has issues resolved based on defined service targets / standards



Quality Water Example Using the Framework

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Customer Value / Service Criteria	Customer/Corporate LOS (What the customer/corporation gets)	Technical LOS (What we do / How we do it)	Operational Indicators (How we know we do it well/how do we know we achieve stated LOS)	Service Standards (how we measure)	Target (must be measurable)
Quality Water	Safe drinking water	Meet Halifax Water Water Quality Master Plan	Number of non-compliance events that result in actions from the Regulator	Achieve chlorine residual	0.2 mg/L of 95% on tests at all sites
				Achieve minimum distribution chlorine residual	0.2 mg/L at all locations
				Total coliforms	Achieve 99.3% free of total coliforms (monthly)
				Disinfection by-products (THMs)	<80ug/L at all sites
				Disinfection by-products (HAAs)	<60ug/L at all sites
				Particle removal at all 5 surface water plants	<1.0 NTU 100% and <0.2 NTU 95% of time
			Lead service management program	Lead sampling	90th percentile standing lead sample <10ug/L for all sample sites
				Residential lead levels	Maintain 90th percentile residential lead levels below 15 ug/L
				Number of lead service lines removed	100 public lead service lines per year Removal of all public and private lead service lines by 2050



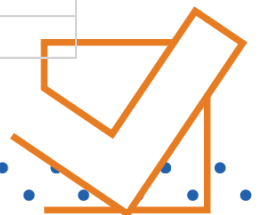
Example Using the Framework

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System Performance	<i>State of good repair</i>	Provide proactive system maintenance	Number of unplanned service outages	Unscheduled Maintenance Hours / Total Maintenance Hours	5%
				# of Unplanned System Interruptions / 100 km Length	10
				Total Customer Days without Service / Total # of Service Connections	0.03
			Infrastructure performance data	Total Corrective Maintenance Hours / Total Maintenance Hours	40%
				# of main breaks / 100 km length	15
				Total Maintenance Hours / km Length	40
				% of valves exercised annually	40%
				System Length Tested for Leakage / km Length	20%
				% of Inoperable or Leaking Valves	0.5%
				% of Hydrants Inspected and Winterized	100%
% of Inoperable or Leaking Hydrants	1%				

Future Goal - Link LOS to Financial Planning

- Incorporate consideration of impact on LOS in capital project prioritization and in long range financial planning

Evaluation of Option to fund the Integrated Resource Plan									
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	
Stability & Affordability									
Bill as a % of median household income	1.70%	1.67%	1.64%	1.53%	1.50%	1.39%	1.47%	1.44%	Lowest % is best
Projected annual residential bill in 2042/43	\$ 2,351	\$ 2,314	\$ 2,266	\$ 2,120	\$ 2,078	\$ 1,931	\$ 2,038	\$ 1,996	Lowest is best
Equitable allocation of costs to current & future users									
% of growth paid for by growth	14.52%	14.52%	28.42%	14.52%	28.42%	100.00%	50.00%	75.00%	Highest % is best
% of asset renewal paid for by depreciation	68.93%	79.61%	79.61%	79.61%	79.61%	79.61%	79.61%	79.61%	Highest % is best
Long term financial sustainability for the utility									
Peak DSR	39.94%	36.80%	36.03%	32.06%	30.78%	24.12%	28.90%	26.47%	DSR Less than 35% is acceptable
Peak Debt to Equity Ratio (% of Capital Funded by Debt)	57.60%	51.48%	48.81%	39.50%	36.83%	23.09%	32.69%	27.89%	Debt should not be more than 40%
Impact on LOS?									



Questions
or
Comments?

