



Annual General Meeting and  
Readiness Workshop

June 6, 2017

# Level of Service Workshop



Hamilton

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# Workshop Agenda

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- Introductions
- Level of Service Introduction (25 mins)
- Workshop Breakout Sessions (30 min)
- Presentation of Breakout Results (30 min)
- Audience LOS Survey & Present Survey Results (20 min)
- Wrap Up (5 min)





# Workshop Objectives

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- Intent of Workshop is to;
  - Present an overview of Level of Service best practice
  - Start a discussion amongst Ontario asset managers





# Level of Service

Web searches will find that definitions of Level of Service are predominately roads related ...

- Residents see roads
- Residents can relate to LOS of the road network
- Residents have been vocal about roads for a long time!

## LOS C

LOS C provides for flow with speeds at or near the posted speed limit. Freedom to maneuver within the traffic stream is noticeably restricted.



What that means;

- Municipalities forced to manage LOS on roads
- LOS is not very well defined

## LOS D

LOS D is the level at which speeds begin to decline slightly. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort.





# Level of Service

- **Wikipedia:** LOS is a qualitative measure used to relate the quality of traffic service. LOS is used to analyze highways by categorizing traffic flow and assigning quality levels of traffic based on performance measure like speed, density, etc.

LOS	Signalized Intersection	Unsignalized Intersection
A	≤10 sec	≤10 sec
B	10–20 sec	10–15 sec
C	20–35 sec	15–25 sec
D	35–55 sec	25–35 sec
E	55–80 sec	35–50 sec
F	>80 sec	>50 sec

- **IIMM:** Levels of service statements describe the outputs or objectives an organization or activity intends to deliver to customers.



# Asset Management Context



Putting that in the context of asset management

- Services are delivered using assets
- Direct correlation between LOS & asset performance
- LOS Describes the required
  - Quality
  - Quantity
  - Availability of service



# Asset Management Context

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LOS will define how you manage assets

All residents will have a park within a 20 minute walk from home that is safe and in good condition:

- “20 min walk”: Number & location of parks
- “safe”: Replacement/rehabilitation of playgrounds, sporting fields, splash pads, etc.
- “good condition”: Replacement of older assets that are not functional anymore





# Asset Management Context

Current road network rating of C (62) - Fair with some deterioration or defects evident. Function is generally not significantly affected.

<i>2017 – 2026 Road Program Allocation</i>	<i>Funding Requirements (\$M)</i>	<i>OCI-LOS 2026</i>	<i>Service Loss</i>
\$25.5M / year	\$255	54 (D)	-8
\$25.5 + \$3.25M / year	\$401	59 (D)	-3
Maintain OCI of 60	\$463	60 (C)	-2
Maintain OCI of 65	\$617	65 (C)	3
Unlimited Funding	\$1,357	81 (B)	19
Maintain Current OCI - 62	\$521	62.0 (C)	0





# How do you define LOS

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- Know who are your customers?
- What are their service expectations?
- What are they willing to pay for this service?
- How do we measure our performance/customer satisfaction?
- Because we are in Asset Management context:
  - What assets support delivering this service?
  - What performance do we expect from the assets?
  - How do we measure asset performance to ensure our satisfaction?

"SAFE  
DRINKING  
WATER  
FROM ANY  
SOURCE,  
ANYWHERE"





# Level of Service Approach

% Residents @ risk  
of Basement  
Flooding

PACP

$Q_{\text{actual}} / Q_{\text{Design}}$

# Complaints

# Homes Flooded

Average PACP

- Customer Level of Service: “relate to how the customer receives the service in terms that they can understand”

Common Language – Council and Customer

- Technical Level of Service: “how the assets support providing the service”

Technical Language – Engineers, O&M

- Key Performance Indicator: “measurable metric of delivering on CLOS & TLOS”

Finite Metrics – CKPIs & TKPIs



# Transfer Station - Customer LOS & KPIs

- Who are your customers?
  - **Residents/businesses** using transfer stations
  - **Collections Department** transferring garbage
- What is their expectation of LOS?
  - **Reasonable processing time** at transfer station
  - **Safe & reliable** transfer stations
  - **Economical** cost to use
  - Garbage **environmentally** disposed of
- How do you measure this?
  - Average wait times
  - Average processing time through station (scale times)
  - Customer complaints
  - Cost for services
  - Regulatory requirements





# Transfer Station - Customer LOS & KPIs

Customer Levels of Service					
Transfer Station					
Technical Service Group	Customers	Customer Service Statement	Service Provided	Customer KPI	Customer LOS Target
Transfer Stations	Residents/ Business (disposing of waste)	<u>Safe, efficient, accessible sites at the lowest cost.</u>	Safe	Annual # of Building code compliance issues	0
				Number of Health & Safety incidents annually	0
			Efficient	Average wait time to enter facility	10 min
				Number of litter complaints	0
				Average processing time	20 min
			Accessible	Number of site closures annually	0
Lowest Cost	Cost per kg for residential/business users	\$\$\$			



# Technical LOS & KPIs

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- What assets support delivery of service?
- How do assets support CLOS?
- What triggers drive the need to spend \$ on an asset
  - Condition triggers
  - Capacity triggers
- What do you measure against assets?
  - Average condition
  - Annual down time
  - Annual O&M \$/Replacement

- Compactors
- Tipping Floor
- Weigh scales
- Substation/Transformers
- Fire Suppression
- Building Structures
- Site Services
- Security
- Roll Doors



# Technical LOS & KPIs

Technical Levels of Service				
Roads				
Technical Service Group	Asset Group	Key Metrics	Technical KPI	Technical LOS Target
Roads	Pavement	OCI	Network OCI Average	70
		Capacity	Highway Capacity Manual score (A-F)	C
		Roughness	Roughness Index	60
		Maintenance	Maintenance Costs per lane km	\$\$\$



# Breakout Sessions

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- Divide group into 5+ groups:
    - Roads (including structures)
    - Water
    - Wastewater
    - Facilities
  - Identify key CLOS & TLOS Metrics for service areas
  - Is LOS different for small, medium and large municipalities?
  - Is LOS different for northern, rural and urban municipalities?
  - Provide a 3 to 5 minute summary of your findings.
- Fleet
  - Waste Management
  - Parks & Rec
  - EMS/Police/Fire
  - Other?



# Breakout Sessions

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# LOS Survey

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- Do Technical Levels of Service already exist for the Service Area i.e. Provincial Regulations?
- For both Customer Levels of Service & Technical Levels of Service:
  1. Does your municipality have clearly defined Levels of Service?
  2. Rate your experience on a scale of 1 (difficult) – 5 (easy) on developing these & explain why.
- Do you believe that target Levels of Service should be developed provincially?
- Should a provincial working group be established to develop target levels of service?
- Would you be interested in attending an AMONtario workshop on Developing LOS?
  - If Yes, what duration: Half day or Full day



Hamilton

# Closing

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Thank You