



# ASSET MANAGEMENT LEVELS OF SERVICE GUIDE

The Asset Management Toolkit was developed by the Northwest Territories Association of Communities. Work was completed by Kerr Wood Leidal Associates Ltd. in 2018.

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Funded by:



Prepared by:



# 1. About this Guide

The Levels of Service Guide (“The Guide”) was developed by the Northwest Territories Association of Communities (NWTAC). The Guide is designed to help communities use the Levels of Service Template to create documents that are tailored to their local context.

This Guide is part of a Toolkit of resources that have been developed to help communities build their capacity in asset management. The resources that make up this Toolkit include:

- ▶ Asset Management Policy Template & Supporting Guide
- ▶ Asset Management Plan Template, Inventory Template & Supporting Guide
- ▶ Lifecycle Cost Workbooks (2) & Supporting Guides
- ▶ Levels of Service Template & Supporting Guide (this document)
- ▶ Playbook Worksheet, Annual Schedule Template & Supporting Guide
- ▶ Smart Management Practices (5)

Each component is designed to be used together with the other components of the Toolkit, which can be found online at: [www.nwtac.com](http://www.nwtac.com)

## Purpose

This Guide provides information and resources to support communities in the Northwest Territories as they document customer Levels of Service. It is designed to help communities interpret and adapt the Levels of Service Template.

## Intended Audience

This Guide has been developed for representatives of communities in the Northwest Territories, including staff, senior management, and decision-makers such as Mayor, Chief, and Council. This Guide may also be of interest to members of the public who would like to learn more about asset management practices in their community.

## Guide Structure

This Guide provides a starting place for communities to develop their own levels of service. It includes sections describing each component of the Levels of Service Template. The Guide also provides support to communities interested in tailoring the template to meet their needs.

The Guide is made up of five major sections:

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|--|--|
| <b>1. About this Guide</b>                       | Information on the purpose and structure of this Guide.  |
| <b>2. Background</b>                             | Details on what Levels of Service are and they fit with existing strategies and practices in the Northwest Territories.            |
| <b>3. Documenting Customer Levels of Service</b> | A description of each section in the Levels of Service Template.   |
| <b>4. Putting it into Practice</b>               | An overview of next steps for integrating customer Levels of Service into your Asset Management Plan and asset management program. |
| <b>5. Glossary</b>                               | A list of key terms used throughout the report, and their definitions.   |

## 2. Background

### What are Levels of Service?

Levels of Service (LoS) are specific parameters that describe the extent and quality of services that the municipality provides to users. Levels of Services link an asset's performance to target performance goals and can be broken down into the following categories:

1. **Legal Requirements:** Statutory, Regulatory and contractual requirements are the minimum levels of service that must be provided.
2. **Community (Customer) Levels of Service:** Community Levels of Service define how a service is perceived by the user, with non-technical measures for service goals.
3. **Asset (Technical) Levels of Service:** Asset Levels of Service are specific and quantifiable measures for service targets.

### Definitions

<b>Asset Type</b>	Major group of assets (e.g. watermains, pump stations, roads, sidewalks, streelighting).
<b>Current Performance</b>	The level of service that is currently provided (which may be more or less than the level of service commitment)
<b>Indicator</b>	A specific property of service that can be objectively evaluated
<b>Level of Service</b>	The level of service the municipality aims to deliver to its customers. This is usually subjective or descriptive for community levels of service and may be quantitative for asset levels of service.
<b>Linear Asset</b>	An asset inventoried by length, typically as part of an interconnected system or network such as watermains or roads.
<b>Performance Measure</b>	The means used by the municipality to assess a level of service. The following measures are indicated in Tab 3: <ul style="list-style-type: none"> <li>▶ O&amp;M data: operating logbooks, sample test results, SCADA data, work order or CMMS data</li> <li>▶ complaints: records of numbers and types of comments received from users by telephone, mail, front counter, website, email or social media</li> <li>▶ expert assessment: Evaluation based on analysis by a competent staff member or consultant, using specific and repeatable criteria and methodology</li> <li>▶ service contract: enforceable terms of a contract with a third party that provides a service on behalf of the municipality (e.g. biweekly residential waste collection)</li> <li>▶ OH&amp;S records: workplace inspection, accident, lost time and near miss records</li> <li>▶ program data: utilization rates of facilities or equipment, spare capacity, range of services supported by the assets</li> </ul>
<b>Service Area</b>	A major division of municipal service delivery (e.g. waterworks, sanitary sewer, transportation)
<b>Service Characteristic</b>	General property of service delivered by an asset or group of assets (e.g. safety, capacity, regulatory compliance).
<b>Vertical Asset</b>	An asset inventoried by item (not by length), such as a treatment plant or traffic light.

### 3. Documenting Customer Levels of Service

Levels of Service can be evaluated by measures such as customer complaints per certain number of people, customer surveys, community outreach, collected data, or discussions with municipal staff familiar with service operations. The process for documenting levels of service is described according to the seven steps defined in Figure 1 below.

**Figure 1: General Process for Establishing Levels of Service**



This template acts as a customizable tool to help smaller municipalities communicate with Councils, stakeholders, and residents about:

- ▶ The services and levels of service the community currently provides;
- ▶ Any gaps that may exist between the current status and that which is required, desired or expected; and
- ▶ Actions or estimated cost to close gaps.

This template is a customizable tool focused primarily on external levels of service (i.e. regulatory and customer LoS) but also provides opportunities for documentation of internal (technical) levels of service.

The completed template will provide a documented set of levels of service for each service area that are commonly understood by staff, council, and the community.

Categories and subcategories of services that do not apply to the community may be ignored or removed from the template by the user.

#### What are Levels of Service?

The process involves:

- ▶ Documenting current services and current levels of services;
- ▶ Identifying potential gaps between current LoS and that required by legislation;
- ▶ Identifying potential gaps between current LoS and that desired or expected by customers; and
- ▶ Identifying actions and estimated costs to meet regulatory requirements or customer expectations.

Grey cells are locked and designed to auto-populate from previous worksheets.

Blue Text indicates a user input cell. Replace the blue text with information specific to your community.

**NOTE:** all cells except blue cells are locked and cannot be edited. The template can be unlocked so you can customize it by clicking the "Unprotect Sheet" box in the "Review" tab of Excel

## Introduction

1. Enter your community name
2. List your corporate service delivery goals or commitments



## Services and Assets

### 1 Identify your Services

The purpose of this worksheet is to document what services the municipality provides, THEN to identify the assets involved in delivering each service. This ensures that you are organizing your assets based on their function in serving the community, rather than trying to define services based on the assets you have.

1. **List your service areas:**
  - ▶ Modify the defaults as needed
  - ▶ Describe services under each category
  - ▶ Use bylaws, budgets and service plans as your references
  - ▶ *Don't start with the assets!*

### 2 Identify your Assets

1. **List the assets for each service:**
  - ▶ Modify the defaults as needed
  - ▶ Use capital plans and asset registers as your references
  - ▶ *This is not a complete inventory; the purpose is to link asset groups to services.*
  - ▶ Adjust the table to describe the services you provide (delete rows that aren't needed, and add sections if needed for service areas not included in the template)

**NOTE: Changing content in this tab has no influence on the rest of the template.**

## Describing Levels of Service

Not every service needs a service level associated with each characteristic of service. **These characteristics often overlap, and some service levels may reflect more than one of them.**

Thinking about services using these characteristics can help to consider what levels of service need to be documented. Use the provided examples as a basis to develop your own. Adjust wording to suit your own community. Add or delete indicators as needed.

The indicators must be measurable, but not necessarily quantitatively. Community levels of service are usually subjective, since they are intended to reflect how users perceive the service.

### 3 Describe Current Levels of Service

General properties that may be used to describe a service:

- ▶ **Regulatory:** What is the legal minimum?
- ▶ **Capacity/Availability:** How much, where, when and for whom?
- ▶ **Safety:** Protecting people and property
- ▶ **Quality:** How good is it (and in what respect)?
- ▶ **Reliability:** How often is service interrupted?
- ▶ **Sustainability:** How well is the environment protected?
- ▶ **What are the Municipality's commitments to the public?**

### 4 Identify Performance Measures

Four example service levels are provided for each indicator. Does one of them suit your community? Consider:

- ▶ What is the legal minimum?
- ▶ *What commitments have been made in public-facing plans (e.g. community or master plans)?*
- ▶ What is important to the public?
- ▶ *Do not promise more than you can deliver!*
- ▶ Think about the outcome, not the inputs
- ▶ Each LoS should cover only one aspect of the service
- ▶ Avoid technical jargon

Long term cost implications: eg if a lower target is selected, what does that mean for costs down the line (e.g. more frequent, higher risk)

(Note: the service levels might vary depending on the specific asset – e.g. some buildings, aesthetics might matter more than others; hospital or emergency response centre vs. storage building)

## Evaluation of Services

### 5 Identify Performance Gaps

1. Is current performance more or less than the service level target?
2. Can current performance be sustained over time?
3. What can be done to address gaps?
  - ▶ What will it cost?
  - ▶ How long will it take?
  - ▶ Which alternative best meets users' needs?

It can be a problem to perform below OR above a service level goal. If reducing service is acceptable and practicable, it may free up resources (time, money or equipment) that can be reallocated to address a deficiency in another area.

Addressing gaps often involves trade-offs between service levels, costs, and risks over the lifecycle of assets. Informing Council and the members of the community who are affected by those trade-offs is important, so that decisions can be made with full consideration of the implications.



#### **Are there gaps between current performance and LOS goals?**

- ▶ Too low, or too high?

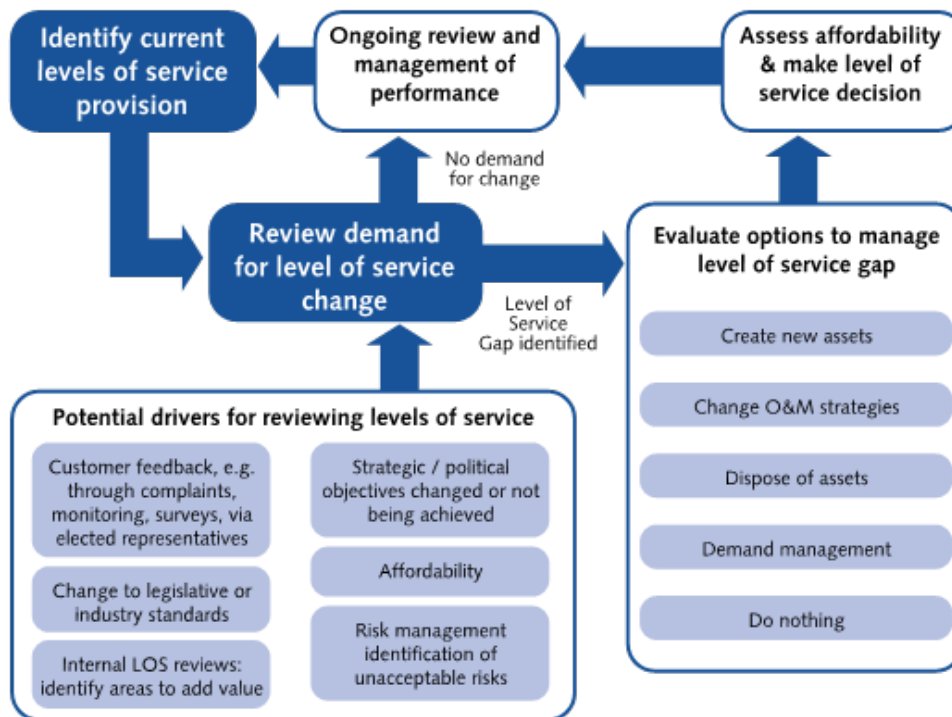
#### **How can gaps be addressed?**

- ▶ Reduce service level commitment
- ▶ Change O&M practice
- ▶ Manage demands
- ▶ Acquire or improve assets
- ▶ Consult Council and the public

#### **Are there foreseeable future gaps between current performance and LOS commitments? Consider:**

- ▶ Changing climate: drought, flood, wildfire, sea level rise, extreme storms
- ▶ Community growth and demographic change
- ▶ Asset deterioration and unfunded renewal needs

What are the best solutions?



Source: Developing Levels of Service and Performance Measures, NAMS New Zealand, 2007

## 6 Develop Strategies to Address Gaps

Describe the Options. Consider:

- ▶ *Master Plans:* Have options previously been developed and costed?
- ▶ Are there ways to meet the community's need without new infrastructure?
- ▶ Is doing nothing acceptable?
- ▶ What level of public or stakeholder communication is needed?

What are the best solutions?

- ▶ Which options are feasible?
- ▶ Which options are affordable?
- ▶ What option has the lowest lifecycle cost?
- ▶ What are the implications for risk over the asset life cycle?

Document lifecycle cost implications.

Make a recommendation.

## Action Plan

### 7 Prepare a Service Delivery Plan

1. Is current performance more or less than the service level target?
2. Can current performance be sustained over time?
3. What can be done to address gaps?
  - ▶ What will it cost?
  - ▶ How long will it take?
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## Reporting Out

1. Use the report to share the outcomes of this process, particularly priorities, with staff and Council
2. Add an annual (recurring) meeting to your calendar for reviewing LOS
3. Clearly communicate level of service commitments to the public if this isn't already being done
4. Address priority actions identified

## 4. Putting it into Practice

Defining and using a performance framework for infrastructure-based community services is one of the most complex aspects of asset management. Start with the most basic levels of service that you provide to the community in each of your main service areas (e.g. public works, recreation, administration and emergency services), and define some specific performance targets for each of the core services you provide. Ask yourself if these are understandable and meaningful to community members, and revise them if not. Then, keep track of your performance in delivering these service levels, and share the results with elected representatives and community members.

When you establish levels of service, it is at least as important to clearly state what you can't do as it is to state what you can do. For example, if some community members expect snow to be cleared from roads immediately after a major storm but you can't get it done in less than 8 hours, it would be appropriate to say you will strive to have snow cleared within one day after a storm event.

