

**DILLON**  
CONSULTING

TOWN OF GEORGINA

# Asset Management Plan

**Non-Core Assets – Executive Summary**

# Executive Summary

## Introduction

Dillon Consulting Limited (Dillon) was engaged by the Town of Georgina (the Town) to develop an Asset Management Plan (AMP) for its non-core municipal infrastructure. The AMP has been developed in accordance with the requirements set forth by O.Reg. 588/17, specifically developing an AMP for other assets (i.e., non-core assets) that is approved by Council and publicly available by July 1<sup>st</sup>, 2024.

The scope of the AMP includes assets spanning eight service categories as presented in Table E-1.

Table E-1: The Town's Non-core Infrastructure Assets

Service Category	Asset Classes
Facilities	Corporate Offices, Community Centres and Halls, Fire Stations, Libraries, Park Washrooms, Picnic Shelters, Recreational, Booths, and Operations Yards
Parks	Neighbourhood Parks, Community Parks, Baseball Diamonds, Basketball Courts, Beach Volleyball Courts, Soccer Pitches, Splash Pads, Tennis Courts, Bleachers, Picnic Shelters, Foot Bridges, Drinking Water, Harbour Dock, and Parking Areas
Fleet	Light Vehicles, Heavy Vehicles, ATVs, Trailers, and Boats
Equipment	Fleet Equipment, Roads Equipment, Water Equipment, Facilities Equipment, Parks Equipment, Recreation and Culture Equipment, Administrative Equipment, Public Works Equipment, Fire and Emergency Equipment, and Library Services Equipment
Active Transportation	Multi-Use Paths
Roadway Appurtenances	Priority Signs, Regulatory Signs, Warning Signs, and Informational Signs
Urban Forestry	Median, Open/Unrestricted, Raised/Planted, Tree Lawn, Woodlot, and Other Trees
IT Assets	Facility Equipment, Tower Sites, Wireless Links, On-Premises Servers, Endpoint Tech, Security Systems, Network/Security Infrastructure, Telephone Systems, Perpetual Software, Subscription-Based Software, and Software Solutions

The objective of the AMP is to provide a financial and technical guide for overseeing the Town's non-core infrastructure. It seeks to enhance the Town's ability to attain maximum benefits from its assets with proactive planning of expenditures while concurrently enhancing the quality of services provided to its community members and staff.

Four technical memorandums were prepared during the project, each dedicated to foundational asset management concepts, and form the main chapters of the AMP including:

- **State of the Infrastructure:** The primary goal of this chapter is to understand and document the inventory of all infrastructure assets considered in the AMP. This includes summarizing how asset information is organized across service categories and informative asset metrics such as age, condition, expected useful life, remaining useful life, and replacement cost.
- **Levels of Service (LOS):** This chapter aims to clearly define what level of service is expected from the assets within each service category, which primarily involves considering both customer and technical (e.g., regulatory) requirements. The chapter outlines performance measures to analyze current levels of service and identifies gaps in achieving desired levels of service.
- **Asset Management Strategy:** This chapter documents the risk model employed for the Town's non-core infrastructure and the existing state of operations and maintenance (O&M). It also establishes strategies for forward looking O&M and condition assessments across service categories.
- **Financial Strategies:** This chapter provides a summary of capital reinvestment requirements for each asset category over a 10-year and a 25-year horizon followed by a summary of anticipated capital and O&M funding needs.

## State of the Infrastructure

Table E-2 provides a high-level summary of the Town's non-core asset inventory, including the quantity of assets and total replacement values. The total replacement value of the entire asset inventory is approximately \$470 M.

Table E-2: Asset Inventory Summary – All Non-Core Assets

Service Category	Quantity	Percentage of Total (by quantity)	Total Replacement Value	Percentage of Total (by replacement value)
Facilities	83	0.21%	\$324,120,000	69.00%
Parks	227	0.58%	\$65,785,000	14.00%
Fleet	122	0.31%	\$27,351,000	5.82%
Equipment	1,842	4.68%	\$21,097,000	4.49%
Active Transportation	25	0.06%	\$5,386,000	1.15%
Roadway Appurtenances	3,960	10.06%	\$1,980,000	0.42%
Urban Forestry	30,934	78.60%	\$18,561,000	3.95%
IT Assets	2,165	5.50%	\$5,456,000	1.16%
Total	39,358	100.00%	\$469,736,000	100.00%

Tables E-3 through Table E-10 provide a summary of the sub-group and assets for each service category.

**Table E-3: Asset Inventory Summary - Facilities**

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Facilities	Buildings	Corporate Offices	4	\$76,539,000
		Community Centres and Halls	18	\$64,775,000
		Fire Stations	4	\$16,312,000
		Pioneer Village	17	\$7,122,000
		Libraries	3	\$16,328,000
		Park Washrooms	5	\$4,614,000
		Picnic Shelters	5	\$1,408,000
		Recreational	12	\$112,914,000
		Booths	3	\$2,146,000
		Operation Yards	12	\$21,962,000
		Facilities Total	83	\$324,120,000

**Table E-4: Asset Inventory Summary - Parks**

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Parks	Public Recreation	Neighbourhood Parks	44	\$11,000,000
		Community Parks	11	\$15,400,000
	Sports Fields	Baseball Diamonds	16	\$19,200,000
		Basketball Courts	6	\$900,000
		Beach Volleyball Courts	3	\$30,000
		Soccer Pitches	11	\$3,900,000
		Splash Pads	2	\$600,000
		Tennis Courts	5	\$850,000
		Pickle Ball Courts	9	\$575,000
	Park Amenities	Bleachers	47	\$564,000

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
		Harbour Dock	2	\$1,500,000
		Drinking Water	7	\$420,000
		Foot Bridges	7	\$2,000,000
		Picnic Shelters	10	\$1,500,000
	Transportation Facilities	Parking Areas	47	\$7,346,000
Parks Total			227	\$65,785,000

Table E-5: Asset Inventory Summary - Fleet

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Fleet	Vehicles	Light Vehicles	44	\$6,231,000
		Medium Vehicles	34	\$4,025,000
		Heavy Vehicles	14	\$13,050,000
		Trailers	28	\$3,095,000
		Boats	2	\$950,000
Fleet Total			122	\$27,351,000

Table E-6: Asset Inventory Summary - Equipment

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Equipment	Operations & Infrastructure Equipment	Fleet Equipment	15	\$580,000
		Roads Equipment	59	\$4,516,000
		Water Equipment	12	\$456,000
	Community Services Equipment	Facilities Equipment	575	\$1,942,000
		Parks Equipment	867	\$9,057,000
		Recreation and Culture Equipment	27	\$1,033,000

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
	General Equipment	Administrative Services Equipment	14	\$111,000
		Public Works Equipment	83	\$2,600,000
	Fire & Emergency Equipment		183	\$750,500
	Library Services Equipment		7	\$51,500
Equipment Total			1,842	\$21,097,000

Table E-7: Asset Inventory Summary – Active Transportation

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Active Transportation	Multi-Use Paths	Hard Surface (Asphalt/Concrete)	15	\$3,015,000
		Crushed Limestone	3	\$229,000
		Gravel	1	\$57,000
		Natural	4	\$1,119,000
		Various	2	\$966,000
Active Transportation Total			25	\$5,386,000

Table E-8: Asset Inventory Summary – Roadway Appurtenances

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Roadway Appurtenances	Roadway Signage	Priority Signs	1,043	\$521,500
		Regulatory Signs	2,025	\$1,012,500
		Warning Signs	887	\$443,500
		Informational Signs	5	\$2,500
Roadway Appurtenances Total			3,960	\$1,980,000

Table E-9: Asset Inventory Summary – Urban Forestry

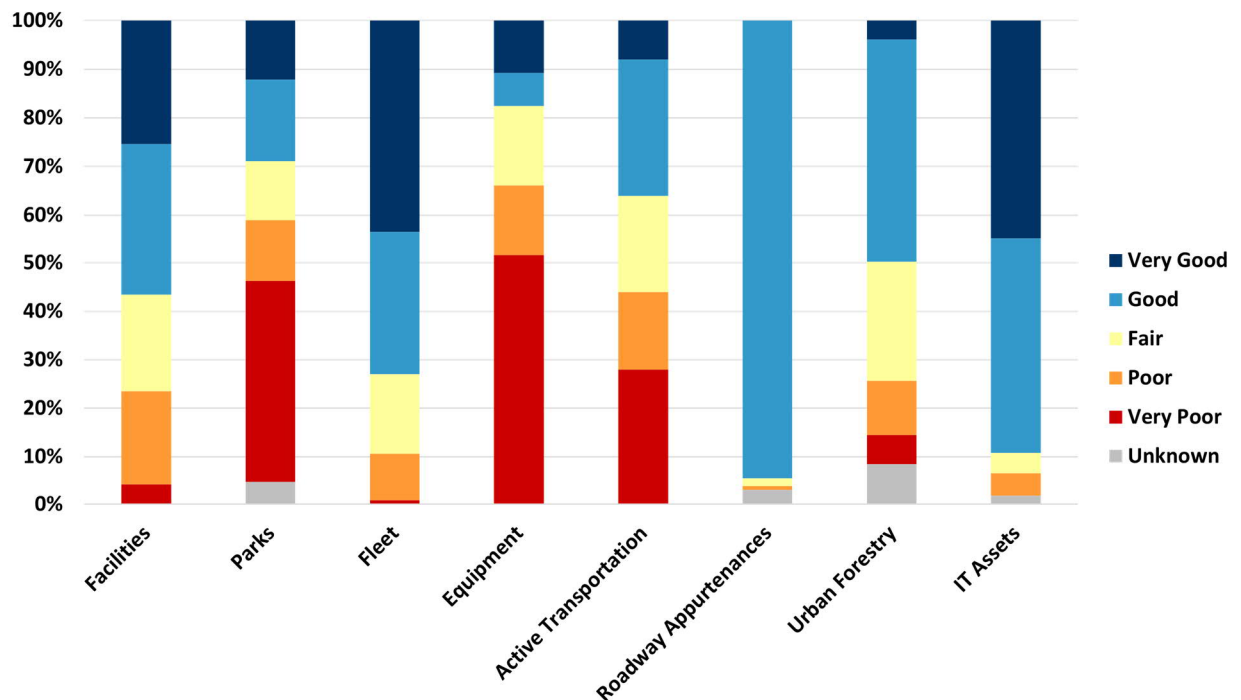
Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
Urban Forestry	Urban Forestry	Median	78	\$47,000
		Open/Unrestricted	7,669	\$4,601,000
		Raised/Planted	5	\$3,000
		Tree Lawn	11,081	\$6,649,000
		Woodlot	655	\$393,000
		Other	11,446	\$6,868,000
Urban Forestry Total			30,934	\$18,561,000

Table E-10: Asset Inventory Summary – IT Assets

Asset Category	Asset Sub-Group	Asset	Quantity	Total Replacement Value
IT Assets	Broadband	Facility Equipment	10	\$193,000
		Tower Sites	14	\$393,000
		Wireless Links	13	\$192,000
	Hardware	On-Premises Servers	29	\$376,000
		Endpoint Tech	1,018	\$752,000
		Security Systems	17	\$306,000
		Network/Security Infrastructure	163	\$609,000
	Software	Telephone Systems	11	\$206,000
		Perpetual Software	86	\$241,000
		Subscription-Based Software	795	\$689,000
IT Assets Total			2,165	\$5,456,000

The asset information was compiled into an asset inventory which was used to report on the condition ratings for the assets. Where condition assessment information was not available, a straight-line asset deterioration allowance was used to calculate the 2023 condition ratings based on remaining useful life. To determine the remaining useful life, a hybrid approach was based on the following information: 1) the age of the asset; 2) expected useful life (EUL); and 3) the last known condition rating assigned to the asset.

Figure E-1 summarizes the condition of assets across each service category based on asset inventory data by count. Approximately 54% of the assets (by count) are in very good condition (6%) and good condition (49%), representing 21,721 assets in the inventory.



**Figure E-1: Asset Service Category Condition Summary (by Count)**

For greater detail on the Town’s state of the infrastructure across each service category please refer to Section 2.0.

## Levels of Service (LOS)

Levels of Service (LOS) measure the services the Town provides to its community through various assets, which influence decisions about those assets based on their impact on the community and the environment. The LOS framework is crucial in advancing the Town's strategic goals. See the Levels of Service framework in Figure E-2.



Levels of Service (LOS) report on and measure the services the Town provides to the community through the use of infrastructure assets and natural assets. The application of the LOS framework plays an important role in supporting the advancement of the Town’s strategic vision, mission, and goals. The line of sight or alignment of LOS with the overarching goals, as outlined in the Town’s Strategic Plan is an essential concept in asset management.



Figure E-2: Levels of Service Framework

The LOS includes the qualitative descriptions and quantitative measures of what the asset is technically capable of delivering and reflect the impact of the municipality’s asset management strategies on the performance of the assets or the quality or capacity of the services they provide.

The developed LOS Framework will be used for future annual reporting, outlining current performance compared to targets, and will be regularly reviewed and updated. Each asset category has identified stakeholder interests and corresponding LOS objectives. The Town’s service parameters and LOS objectives for each of the service categories is presented in Table E-11. For greater detail on the Town’s LOS across each service category, including the technical LOS and the community LOS, please refer to Section 3.0.

**Table E-11: Parameter and LOS Objectives for Each Service Category**

Service Category	Parameter	LOS Objective(s)
Facilities	Quality & Availability	<ul style="list-style-type: none"> <li>To provide an adequate supply of buildings and facilities that are fit for purpose for programming (available to the public) and administration (serving staff working environments and public meeting spaces).</li> <li>To provide a safe, reliable, and well-maintained facilities.</li> <li>To provide accessibility access to and within facilities.</li> </ul>
Parks	Quality & Availability	<ul style="list-style-type: none"> <li>To provide an adequate supply of outdoor recreation spaces that are fit for purpose for programming (organized activities) and community activities (leisure).</li> </ul>
Fleet	Quality & Reliability	<ul style="list-style-type: none"> <li>To provide safe, reliable, and well-maintained vehicles that are fit for purpose.</li> </ul>
Equipment	Quality & Reliability	<ul style="list-style-type: none"> <li>To provide safe, reliable, and well-maintained equipment that is fit for purpose.</li> </ul>
Active Transportation	Quality & Availability	<ul style="list-style-type: none"> <li>To provide an adequate supply of multi-use paths that are safe, well-maintained for community access and provides connectivity through the network.</li> </ul>
Roadway Appurtenances	Quality & Reliability	<ul style="list-style-type: none"> <li>To provide signs that are present and reliable to communicate required messages.</li> </ul>
Urban Forestry	Quality & Availability	<ul style="list-style-type: none"> <li>To provide adequate tree canopy coverage that promotes naturalization, air quality, shade, temperature reduction, noise attenuation, animal habitat, mental health benefits and carbon sink.</li> </ul>
IT Assets	Quality & Reliability	<ul style="list-style-type: none"> <li>To provide IT assets that are fit for purpose and deliver the expected service to users and to provide reliable equipment to meet the needs of the Town.</li> </ul>

## Asset Management Strategy

The Town's asset management strategy considers how the assets deteriorate with time, what other factors contribute to reduced performance, applying a risk model to determine risk scores, and assessing operations and maintenance strategies to deliver expected performance and what investments are required (and when) to improve condition and extend the useful life of assets. Strategies to address risk are presented in Figure E-3.

STRATEGY	PROS	CONS
<b>Replace and Upgrade</b>	Addressing long term risk; Fix all when other strategies can't work	Expensive, complex, removes budget from other strategies
<b>Rehabilitate</b>	Less cost with long term results	Difficult to update or even maintain service level
<b>Maintain</b>	Integrate in annual O&M costs	Incur cost without visible results
<b>Mitigate</b>	Low cost (usually)	Limited application
<b>Accept (do nothing)</b>	No cost	Compromise service level

Figure E-3: Strategies to Address Risk

### Risk Management Strategy

Risk management involves identifying and assessing potential risks and uncertainties while planning ways to avoid or mitigate risk from climate change, natural disasters, public safety threats, and aging assets. The goal of the risk model is to provide a structured framework for understanding and addressing risks that could impact the achievement of objectives.

The risk exposure formula is often expressed as the product of the probability of failure (PoF) and the consequence of failure (CoF). In risk management, this formula is commonly used to quantify the potential impacts of a risk event:

$$Risk\ Exposure = Probability\ of\ Failure \times Consequence\ of\ Failure$$

The PoF represents the likelihood or chance that a particular risk event will occur. The CoF refers to the impact or severity of the risk event if it were to occur. CoF is assessed differently based on the service category.

In determining a risk score for each of the assets included in the asset inventory, a triple bottom line approach was taken and through workshops with Divisional Stakeholders the specific PoF and the CoF factors were established for each asset category based on the uniqueness of the assets and the services delivered by the assets.

Figure E-4 presents the risk scores of all non-core assets organized from highest risk score to lowest risk score across all eight service areas. Over two-thirds of the assets (70.3%) are in the low risk category, with under one-third in the medium-risk (29.5%). A very small percentage of assets are in the high-risk category (0.2%).

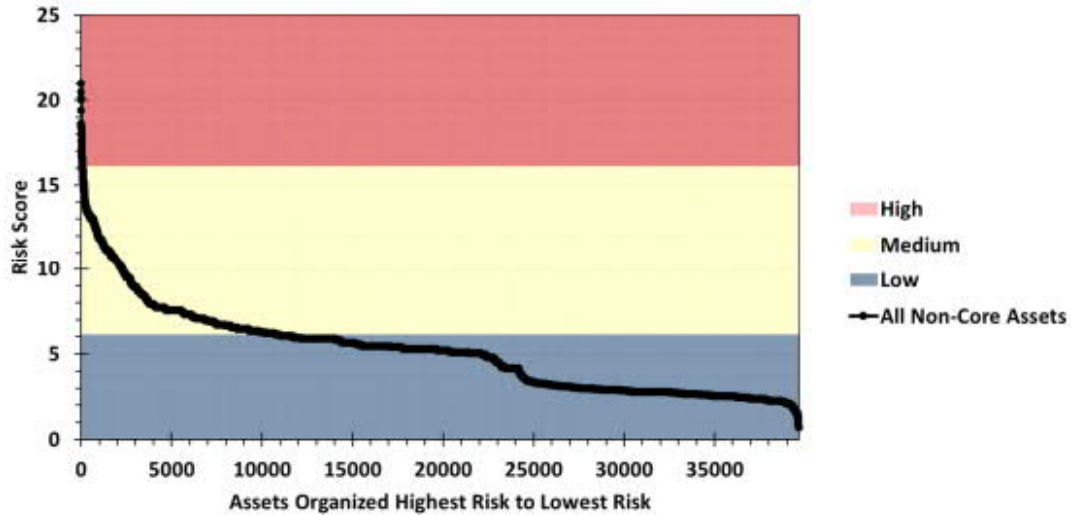


Figure E-4: Risk Profile (All Assets)

Further information on the risk approach, methodology and analysis is documented in Section 4.0. The Town’s Conceptual Risk Model is presented in Appendix C.

### Asset Investment Needs Forecasts

The asset portfolios for each of the service categories were assessed individually across three key investment types: operating and maintenance, condition assessments, and lifecycle replacements. Overall expenditure plans were developed in detail and summarized into annualized average expenditures for the purpose of comparing to financial affordability. See Table E-12 for summary of the annualized average investments needs for operating and maintenance, condition assessments and lifecycle replacements.

Table E-12: Annualized Average Investment Needs

Expenditure Category	Annualized Average (10 Year Period)	Funding Budget	Refer to Report Section
Operating and Maintenance	\$22,778,110	Operating	Section 4.5
Condition Assessments	\$817,163	Capital	Section 4.6
Lifecycle Replacements	\$10,783,722	Capital	Section 5.1

For greater detail on the Town’s asset management strategy across each service category please refer to Section 4.0.

## Financial Analysis and Strategy

The financial analysis and strategy section identifies the annual cost of O&M and capital renewal reserve contributions required to delivery the services provided by the Town's non-core assets and describes how the Town could fund reinvestment needs.

Mitigating funding gaps require either an increase of funds available for infrastructure renewal or a reduction in service levels. The analysis in Section 5.2.1 and 5.2.2 describes the impacts of the project lifecycle costs on Town reserves under two different project scheduling scenarios, the impacts of increasing revenues, and recommends a phased-in approach to support taxpayer affordability and gradually close the infrastructure gap. A summary of the Town's infrastructure funding gap is shown in Table E-13 which reflects current available funding as well as the average annual O&M investment and capital contributions proposed to achieve financial sustainability.

Table E-13: The Town's Non-Core Municipal Infrastructure Funding Gap

Funding Budget	Current Annual Funding	Proposed Annual Funding	Annual Funding Shortfall
Capital	\$7,313,796	\$11,600,000	\$4,286,203
Operating	\$19,300,000	\$22,776,110	\$3,476,110

Please refer to Sections 5.2.1 and 5.2.2 of the AMP for further details on the Town's infrastructure gap with strategies and scenarios to narrow the gap.

## Continuous Improvement

There are 11 continuous improvement initiatives, including several that have been singled out as high priority, recommended for implementation over the next four years prior to the next iteration of the AMP. The summary of continuous improvement initiatives is presented below with recommendation in four categories of asset management:

1. State of the Infrastructure (SOTI)
  - 1.1. Adopt Global Unique Asset ID System for Assets
  - 1.2. Eliminate Pooled Asset Inventories
  - 1.3. Refine Asset Data
  - 1.4. Development of the Informational Sign Inventory
  - 1.5. Develop an Asset Condition Assessment Program
2. Levels of Service (LOS)
  - 2.1. Increase Tracking of LOS Metrics

3. Asset Management Strategies (AMS)
  - 3.1. Refine the Risk Framework
  - 3.2. Transition to a Centralized Database for Tracking of All O&M Activities and Costs
  - 3.3. Standardize Tracking of O&M Activities and Costs in Relation to Individual Assets
4. Financial Strategies (FAS)
  - 4.1. Periodically Assess Replacement Costs and Estimated Useful Lives
  - 4.2. Standardize Tracking of Labour for Completion of O&M Activities

For a detailed account of each initiative, along with guidance on their sequencing and execution, see Section 6.0.