



Town of Gananoque
Asset Management Plan
Schedule B
Strategic Asset Management Policies



June 20, 2019



Introduction	3
State of Local Infrastructure	4
Levels of Service Guidelines	5
Asset Management Strategy by Asset Category	
• Roads	8
• Bridges	10
• Buildings	11
• Water and Wastewater System	13
• Streetlights	13
• Fleet	14
Strategic Plan Initiatives	15
Relationship to other Municipal Documents	16
Asset Management Plan Reviews	17
Asset Management Plan Monitoring	17
Asset Management Plan Improvement	18



Introduction

The Town of Gananoque, the Gateway to the 1000 Islands, is internationally recognized as one of Eastern Ontario's most stunning waterfront communities and is thoroughly enjoyed by residents, tourists and the local business community. The Town's population, based on the 2016 census is 5,200 housed within 2,516 households. The Town is approximately 7 square km, with King St spanning 3.8 km.

The Town of Gananoque was incorporated in 1890. The Town operates as a single tier government in the United Counties of Leeds and Grenville. Gananoque provides municipal services including; police, fire, public works, public utilities, planning, recreation, library, museums and various other general government functions.

Since 2009, the Town of Gananoque has been identifying and valuing its assets to meet the requirements of the Public Sector Accounting Board (PSAB) 3150 requirements, which requires information to be included on the financial statements from 2009 onwards.

The Town developed Roads, Bridges, Water and Wastewater Infrastructure AMP in 2013. The 2016 Asset Management Plan schedule A included Facilities and Fleet Assets. This schedule documents the Town of Gananoque's Strategic Asset Management Policies.



State of Local Infrastructure

To obtain an overview of the Town's current state of assets, asset inventory, valuation, and age are recorded annually. The Town's inventory of assets types and respective current replacement value can be seen below:

Asset	Inventory	Historical Cost	Net Book Value	Portion of Remaining Value
Roads ¹	80 kms	\$35,363,654	\$17,983,754	51%
Bridges ¹	7	\$3,819,584	\$2,392,767	63%
Buildings ²	24	\$33,493,758	\$18,497,332	55%
Water System	33 kms	\$14,778,075	\$6,557,776	44%
Wastewater System	27 kms	\$11,463,973	\$5,678,635	49%
Storm Sewer System ²	20 kms	\$4,363,892	\$1,491,695	34%
Streetlights ⁵	643	\$655,881	\$547,074	83%

Levels of Service Guidelines:

The purpose of the Levels of Service (LOS) Guidelines is to manage assets to ensure they perform optimally in the provision of Municipal services. These best practices, when followed, facilitate decision making regarding the assets, based on the service that they provide rather than simply on their condition.

Some of the more important factors affecting LOS that are considered by the Town include:

- Strategic goals for the Town
- Legislation and regulatory requirements
- Community expectations
- Affordability

The Town will be developing formal LOS measures which will be refined in future schedules of the AMP. An overview of the level of service guidelines for each asset category are detailed below.

LOS Targets:

Department	Assets	Current Level	Target Level
Public Utilities	Water Treatment Plant	Repair and Replace major components as they begin to fail	Inspect major components and plan for replacement as appropriate for the expected life span
Public Utilities	Wastewater System	Meet all legislative requirements	Meet all legislative requirements
Public Utilities	Wastewater System	Partial rate recovery in accordance with 10 year water / wastewater plan 2016	Full cost recovery through rate study
Department	Assets	Current Level	Target Level
Properties	Buildings	Repair and Replace major components as they begin to fail	Inspect buildings every 5 years to plan for annual preventative maintenance at a cost savings over reactive damage repairs
Department	Assets	Current Level	Target Level
Various	Vehicles	Repair and Replace major components as they begin to fail	Annually record condition of vehicles and review annual maintenance costs to accurately compare cost of continued repairs vs purchase of replacement vehicle
Various	Vehicles	Observe regular preventative maintenance, i.e. oil changes, tire rotation, brake replacement	Observe regular preventative maintenance, i.e. oil changes, tire rotation, brake replacement

Some LOS (LOS) for the Town are regulated by documents developed in the industry and by internally focusing on technical requirements that meet generally expected levels of operation and safety:

Asset Management Strategy

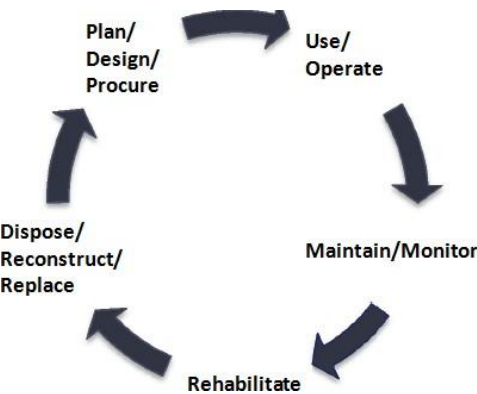
The purpose of the Town’s Asset Management Strategy is to evaluate current practices and establish future practices that will be cost-effective and sustainable, and provide risk management to meet its desired LOS for its residents and other interested parties. This Asset Management Strategy considers asset and maintenance infrastructure solutions. These solutions can be used to identify renewal, growth and improvement, and maintenance projects, and to support the development of a transparent and defensible 10-year plan, optimizing the maintenance of the Town’s infrastructure while continuing to meet target LOS.

This schedule details asset management strategies for the assets from capital maintenance, operational maintenance, effective procurement, and risk management perspectives.

Asset Life Cycle Management

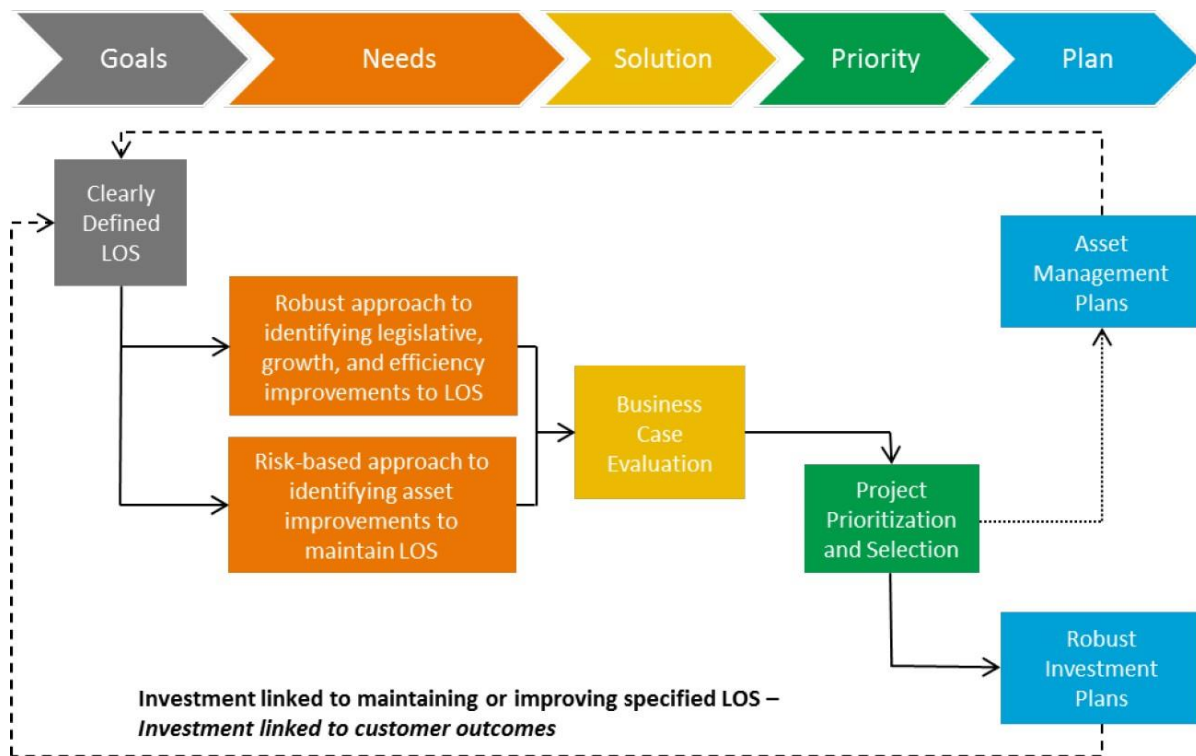
An asset lifecycle management strategy provides a comprehensive and effective approach to asset management (Figure 5-1). It manages and optimizes the cost and performance of an asset by considering the whole lifecycle.

The asset lifecycle management strategy allows the Town to focus on the entire lifecycle of the asset, ‘from cradle to grave,’ and to make better-informed and optimized decisions that consider a wider spectrum of solutions. Key components of this strategy include:



Investment Planning

The Investment Planning Process below supports the Town’s ability to provide target LOS and implement the delivery plan. This process focuses on linking investment decisions on infrastructure to customer-oriented service delivery. Overall, the Town follows the Investment Planning Process by identifying goals/objectives, establishing needs, evaluating a variety of feasible solutions, prioritizing the solutions, and developing investment plans based on the selected options.



Condition Assessment

Investment Planning Process

Accurate and comprehensive data on an asset's current condition are fundamental to good asset management practices. Complete information regarding the infrastructure mitigates premature replacement or failure of assets. Sound management decisions regarding capital expenditures, and operations and maintenance activities are based on a clear understanding of an assets condition and performance.

Integrating condition assessment programs into asset management practices provides many benefits. A better understanding of asset condition leads to more sound management practices, and allows for the minimization of unnecessary expenditures. It also enables accurate asset reporting of asset valuations and service life, contributes to the maintenance of target LOS, and enables better decision making.

Combined with risk management frameworks, it allows for the identification of potential future failures, leading to the establishment and scheduling of repairs, preventative maintenance, and rehabilitation programs in a financially accountable and transparent manner.

Procurement Methodologies

As detailed in the Town's Procurement By-law 2015-087, the Town strives to obtain the best value when procuring goods and services and disposing of surplus goods. The Procurement By-law encourages competition in bids, to obtain the highest quality of goods and services at a cost-effective price and to assure fairness, objectivity, accountability, and transparency in the procurement process.

Purchases greater than \$50,000 are issued for tender and are approved by bylaw. Purchases greater than \$5,000 and less than \$50,000 require 3 quotes.

Where possible, the Town partners with other municipalities for the procurement of goods and services to maximize purchasing power and to avoid duplication of work.. The annual budget is typically approved by Town Council in December of the previous year to allow the tender process to begin early in the year, when contractors are not as busy and pricing is more competitive.

Knowledge Retention

As the Town struggles with Staff retention, it is critical that all documents and studies pertaining to Asset Management are stored in accordance with records retention policy. The Town is currently working on strategies intended to mitigate some of the risks posed by staff turnover and vacancies.

“Affordability” versus LOS

The biggest risk to the Asset Management Strategy is the deterioration in LOS if the annual capital budgets does not support the AMP.

Capital maintenance budgets have increased over the last few years, but current projections suggest that it is still not enough. The Town will need to make an informed decision about the tradeoff between higher spend, and potentially higher taxes, or lower LOS.

The Town is looking to establish an asset lifecycle provision as part of its policies. This will formalize a practice that is already occurring of setting aside a fund reserve for maintaining assets through their expected lifecycle at the time they are purchased.

Strategies By Asset Class

Roads

Current Targets and Goals:

- Expand the Asphalt, Concrete, Milling and Paving Program, as prescribed in the Town of Gananoque Roads needs study.
- Synchronize Road reconstruction projects with Water and Wastewater reconstruction projects.
- Adopt a holistic road maintenance schedule which co-ordinates sidewalk and drainage plans.
- Undertake an updated comprehensive Roads Needs Study every 5 years

Approach to Minimizing Lifecycle Costs:

- Implement small, low cost renewals early in lifecycle.
- Improvements to Asset Management strategy slow the rate of deterioration, but capital maintenance budgets will need to ultimately rise.
 - The Town's current approach to minimizing the roads' lifecycle costs covers both operational and capital activities.
 - Operations staff routinely fill potholes and minor defects. After a period of time, the road surface has deteriorated and road sections are selected for resurfacing

Key Risks to Asset Management Strategy for Roads:

- Deterioration of LOS if capital maintenance budgets remain the same. The Town will need to make an informed decision about the tradeoff between higher spending, and potentially higher taxes, or lower LOS.
- Climate change resulting in severe weather events may cause damage to municipal infrastructure. Drainage systems may be unable to cope with strength and frequency of storms. In recent years repetitive freeze thaw cycles have damaged roads, particularly around culverts.

Coordination with Utilities and Other Municipalities

The activities of water and wastewater utilities have a big impact on the road surface and traffic disruption. An integrated schedule of construction projects is fully coordinated, and underground utilities projects are completed in conjunctions with major resurfacing or reconstruction work.

The Town also coordinates maintenance and renewal activities with other municipalities where boundary roads exist

Bridges



Current Targets and Goals:

- Maintain the safety and serviceability of bridges and culverts, in accordance with engineer recommendations in the bi-annual OSIM inspection reports. OSIM inspections are performed by qualified structural engineers in accordance with the Provincial guidelines and regulations, as set forth by the Ontario Structure Inspection Manual. In addition to the formal inspections, operations staff perform monthly, routine visual inspections of roadway surfaces of bridges.
- There is a backlog of maintenance issues arising from the inspections that will be gradually dealt with through the capital maintenance program.
- The Hudson bridge will be completely replaced in 2019.

- The King St pedestrian bridge is slated for full replacement by 2025 due to structural failures.
- Occasionally it may be determined that the function of a bridge no longer justifies the cost of replacement as the priority relates to other asset needs. Decommissioning of the asset should then be considered by Council.

Buildings



Current Targets and Goals:

- The Town will implement a planned maintenance program that uses external service contracts with licensed professionals who perform maintenance to meet legislative standards.
 - Every five years, an external consultant completes condition assessments and audits of the facilities and their components. The results of the assessments separate the needs across a 25-year time span, identifying the current needs, i.e. addressing and health and safety issues and future needs which are used to inform the budget forecast. The Town is actively incorporating the requirements for legislative items, such as the Green Energy Act, as a part of their facility condition audit to help identify corrective actions that need to be addressed. Additionally, the Town performs an Accessibility Audit bi-annually to identify areas where retrofit is required or there is a need for accessibility to conform with AODA requirements. The condition assessments are used to monitor the performance

of an asset and compare its notional remaining service life with its actual remaining service life, to better inform the timeline for maintenance or replacement/rehabilitation activities.

- **Current** operational work is completed with the intention to defer capital, and to extend the life of and/or to improve overall performance of the facilities and their respective components. The facilities staff has a comprehensive overview of the current state of the facilities, and regularly evaluates critical areas where a failure could cause service interruptions. They use this assessment to inform and validate the forecasting and planning process.
- **The Town** has a planned maintenance program that uses external service contracts with licensed professionals who perform maintenance to meet legislative standards. The maintenance program includes a work plan which supports inspections and maps out preventative maintenance activities on a daily, weekly and monthly schedule. Maintenance work is optimized to consider coordination with external contracted work, seasonal effects, and scheduled around programs to minimize service disruptions.
- **An area** of improvement the Town has identified for their operational maintenance practices is to proactively identify the utilization of the various facilities on a regular basis. Doing this will better inform maintenance planning decisions, and validate whether the Town is meeting aspects of its target customer LOS.

Approach to Minimizing Lifecycle Costs:

- Preventative Maintenance Contracts – Recommendations from the preventative maintenance inspections inform the capital planning process of actual remaining service life of the assets and validate the forecast model in the Capital Plan

Investment Decision Considerations

The facilities staff integrate customer needs into decisions by considering public opinion and having ongoing discussions with program staff. These discussions enable the identification of emerging trends, program needs, or changes in program content that result in changes in the facility and are considered in the capital planning process.

Occasionally it may be determined that the function of a facility is no longer desired by the general public, resulting in declined usage. Decommissioning of the asset should then be considered by Council so that further investments into the facility can be redirected to other assets.

In addition to asset condition and customer needs, investment decisions may also be driven by the availability of grant programs. A project slated for future years may displace a current or subsequent year project due to the availability of a subsidizing grant.

Key Risks to Strategy for Facilities

Reserves for Replacement

Past practice has been to fund facility replacement on a pay as you go basis. Capital reserves contribution are not indexed by replacement costs. In particular, there are no reserves for replacement of the arena. Starting in 2020, the Town will index reserve and capital funding to replacement costs.

Water and Wastewater Systems



Current Targets and Goals:

- Synchronize Road reconstruction projects with Water and Wastewater reconstruction projects.
- Enact the user fee schedules and capital replacement schedules as detailed in the 10 year water wastewater plan which is submitted to the Province within the application for license to provide Municipal drinking water.
- Complete annual inspections of above ground infrastructure to identify necessary preventative maintenance to avoid costly replacements, which include rentals of critical equipment during repairs.

Approach to Minimizing Lifecycle Costs:

- Implement small, low cost renewals early in lifecycle.
- Improvements to Asset Management strategy slow the rate of deterioration, but capital maintenance budgets will need to ultimately rise.

Key Risks to Asset Management Strategy for Water and Wastewater Systems:

- Water standards are legislated by the Province and must be achieved.

Streetlights

The Town undertook a comprehensive streetlight LED conversion in 2016. The streetlights are expected to have a 22 year lifespan. After the 5 year loan for the Streetlight Project is satisfied, the amount of the annual loan payments will be transferred to capital reserve in anticipation of the 2038 replacement. The hydro cost savings are funding the loan payments, which provides an excellent return on investment.

Fleet



Preventative Maintenance

The Town's fleet undergoes regular day-to-day maintenance that follows a regimented preventative maintenance system. The system is monitored through commercial vehicle operation registration. The schedule is based on the kilometres of service and is prescribed based on legislative, commercial, and manufacturer-suggested vehicle maintenance.

Current maintenance work is completed with the intention to defer capital, and extend the life of and/or improve overall performance of the vehicles.

How Infrastructure Supports the Town's Goals

Municipalities are unique compared to most businesses, in the sense that they provide a multitude of services. To effectively deliver these services, they require a diverse portfolio of infrastructure assets.

Asset management will support the delivery of the Town's strategic goals by enabling a better understanding of the existing assets' current lifecycle costs and providing a better understanding of the trigger points for future investment

The Town's Strategic Plan 2020, adopted by Bylaw 2015-085, details the following goals and associated objectives which pertain to Asset Management:

Strategic Initiative #1

Assess the Town's current infrastructure to ensure sufficient capacity exists to support future growth.

Actions

A) Expand the Asset Management Plan to list and prioritize infrastructure replacement based on age, state of repair, number of homes serviced.

B) Identify all municipal services and document their existing conditions. Map the Town's infrastructure using Geographic Information Systems (Piggyback on County system). Verify "as built" vs "construction designs – location verification. Streamline the updating process.

C) Develop a plan to require homeowners to divert sump pump discharge. Realign storm water discharge. Investigate a (Submerged Attached Growth Reactor) SAGR system to enhance the

- efficiency of the Lagoon System.

Strategic Initiative #2

Identify ways to connect the Downtown to other parts of Town.

Actions

A) Identify future parking lot needs and opportunities.

C) Create accessible pathways when constructing or reconstructing roads and sidewalks.

D) Create bicycle pathways when constructing or reconstructing roads and sidewalks.

Strategic Initiative #3

Identify ways to increase Transient Dockage to support tourism and revenue generation.

Actions

- A) Investigate ways to increase day use slips.
- B) Investigate the creation of additional docks for seasonal dockage to address the current 3 year waiting list. – William Street South with parking.
- C) Investigate outside breakwater opportunities for transient docking (Seadoos).
- D) Explore public/private ventures of leasing or building additional docks.

Strategic Initiative #4

Identify ways to improve Gananoque's Road Design.

Actions

- A) Investigate implementing sidewalks on only one side with parking on the other side.
- B) Conduct a Drainage Study to identify proper storm sewers and along alleys/lanes and roadways.
- D) Design a typical road construction standards

Strategic Initiative #6

Seek ways to reduce energy costs at Town-Owned infrastructure.

Actions

- B) On an ongoing basis participate in a municipal energy tracking system of all Town buildings/property.
- C) Explore Solar Power opportunities on Town-owned buildings. Example: Net metering program.

SECTOR #3

Financial Sustainability

Strategic Initiative #1

Ensure that Gananoque is and remains an affordable place to do business and raise a family.

- J) Address the Infrastructure Gap through the development of a long term capital financing plan.

Relationship to Other Municipal Planning and Financial Documents

The AMP contains strategic information that integrates with other corporate planning documents such as:

- **Town of Gananoque Official Plan** – The AMP will use and influence policy directions for long-term growth and development as outlined in the Official Plan.
- **Annual Budgets** – The AMP will identify construction, operation, maintenance, rehabilitation, replacement, expansion, and disposal of assets, which will be considered in the development of annual capital and operating budgets.

- **Facility Infrastructure Inspections** – Regular facility infrastructure inspections will provide data for the AMP in regard to the condition of facility assets and the funding requirements to maintain, rehabilitate, replace, or expand assets to meet defined LOS.

Asset Management Plan Reviews

The AMP should be a living document that will continue to reflect the evolution of asset management practices within the Town. A key aspect of good asset management practice is to continually evaluate, review, and enhance its practices. This continual improvement approach will result in periodic updates to the AMP, as a better understanding of the asset base and its needs are obtained.

The AMP is also a strategic document that should ultimately encompass the full lifecycle of the assets included herein. The AMP will continue to be further developed to include information about all Town- owned assets. This AMP will be updated every 4 to 5 years to coincide with other strategic planning documents. If significant changes arise within this timeframe that impact the AMP, an interim review could be undertaken.

The proposed frequency of reviews for the AMP and associated documents.

Document	Frequency
Asset Management Policy	Every 10 years
Asset Management Plan	Every 4 to 5 years
Capital Budget	Annually

Plan Monitoring

The AMP is a living document that will continue to reflect the evolution of asset management practices within the Town. A key aspect of good practice asset management is to continually evaluate, review and enhance its practices. This continual improvement approach will result in periodic updates to the AMP as a better understanding of the asset base and its needs is obtained.

The following indicators can be monitored to measure the effectiveness of this AMP.

- Compliance with legislative requirements
- Quality of Service Delivery –100 percent compliance with service targets or targets exceeded
- Capital project delivery outputs delivered to schedule (or better) and on budget (or better)
- Operational and maintenance budgets met (or better)
- Quality of Risk Management—No events occurring outside the risk profile

- benchmarking with comparable Departments in other municipalities—Maintain performance

AMP Improvement

The proposed regulatory framework as outlined in the current draft regulation provides fairly prescriptive multi-year targets for the Town that will result in numerous enhancements to the asset management framework that is currently in place.

- Updated asset condition and lifecycle replacement studies – during the next few years the Town is currently anticipating updates to its existing state of the infrastructure studies in areas such as pavement, bridges and structures, facilities and stormwater. In finalizing the terms of reference for these studies it will be important to ensure alignment with the information requirements from the updated legislation and the forecasting outputs that will allow for less reliance on PSAB for major asset categories.
- Technology – opportunity exists to leverage existing and emerging technological solutions for the purpose of planning, monitoring and reporting on assets, as well as to pursue lifecycle cost savings and deferral opportunities in the delivery of services and rehabilitation of infrastructure.
- Service level measurement – defining service level measures, establishing processes in order to track and report them on a timely basis, and incorporating the resulting information into the Town’s strategic decision making processes offers an opportunity to allocate limited resources in a targeted manner.
- Service Delivery – continue to investigate opportunities to maximize efficiency, create value, manage risk, increase service level and/or minimize overall cost (including infrastructure renewal cost) through service delivery models.
- Resources – the new planning and reporting requirements that are anticipated in the upcoming regulations will create an on-going demand that may need to be addressed through the allocation of new or re-purposed internal staff resources, and/or the allocation of additional funds for expanded third-party services.

Financing Strategy

A long-term financing strategy is an important step in putting the AMP into action. A LTFP that reflects the timely rehabilitation and maintenance of assets allows the Town of Gananoque to identify the financial resources required for sustainable asset management based on long term needs and desired LOS.

The Town of Gananoque LTFP will be adopted in 2019 and will become Schedule C of the AMP.