



Deep River Asset Management Plan 2024 (Non-Core Assets)

Version: 1.0
Date: October 19, 2024
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Acknowledgements and credits

As part of the preparation of this asset management plan, staff performed extensive reviews of work done at other Ontario municipalities. While this AMP is “made in Deep River,” staff would like to acknowledge and thank the asset management teams at the City of Ottawa and the City of Guelph, whose work provided excellent examples and references..

1 Introduction

1.1 Background, goals, and objectives

Asset management is the art and science of balancing the **relationship between money, risk, and performance** in businesses that depend on physical assets for their success. It is a **proactive, lifecycle approach** to reducing build, operation, and maintenance costs and risks. This is achieved by:

- Maintaining and/or replacing capital assets using models of the best economy.
- Taking a **system-level, whole-life, whole-cost perspective**, rather than a part-specific perspective
- **Managing risks** rather than specific resources
- Providing **clarity and evidence in our decision-making**, thus ensuring that our stakeholders understand the choices we made

The concept of asset management at the Town of Deep River has expanded and progressed over the Town's history. Council and staff have long regarded the long-term management of assets as critical; the formalisation of integrated asset management practices was initiated in the early to mid-2010's. The Town's first asset management plan was adopted in 2016, followed by a *Strategic Asset Management Policy* in 2019. An updated Asset Management Plan for Core Assets was adopted in 2022, which covers water, wastewater, stormwater and transportation related assets (*Deep River Asset Management Plan 2022 (Core Assets)*).

The Town continues to improve its asset management practices and processes through implementation of best practices, and skills development.

1.2 Ontario Regulation 588/17

Ontario Regulation 588/17 is a provincial regulation under the *Infrastructure for Jobs and Prosperity Act, 2015*. The Act is intended to help address the large-scale problem of aging municipal infrastructure and funding shortfalls by promoting better asset management planning at the local government level. The regulation requires all municipalities to have Asset Management Policies and Plans in place by certain deadlines.

The regulations outline a phased approach. Each of the deliverables must be adopted by Council resolution by the specified dates.

- **July 1st, 2019:** Asset Management Policy
- **July 1st, 2022:** Asset Management Plan for Core Assets
 - Scope includes roads, domestic water supply, wastewater treatment, stormwater management
- **July 1st, 2024:** Expanded Asset Management Plans for all other assets (Non-Core)
 - Scope expanded to include "all municipal infrastructure assets", which includes Buildings, fleet, facilities, etc.

- A full description of the capital and operating costs of implementing lifecycle activities, and an associated financial and funding strategy to implement required lifecycle activities
- A description of the risks and priorities where there are identified funding shortfalls

Deep River Asset Management Plan 2024 (Non-Core Assets) includes all information required by section 5 of Ontario Regulation 588/17, describing the Town’s asset management plan for non-core municipal infrastructure.

This document uses the term “non-core” only to differentiate the asset groups covered by this AMP from those assets categorized as “core infrastructure” in O.Reg 588/17. The Town regards “non-core” assets as necessary to its mandate to provide services to our community.

1.3 Scope of this document

This document describes the Town’s asset management plan for **non-core** municipal infrastructure, as required by Ontario 588/17. It should be read as an extension to *Deep River Asset Management Plan 2022 (Core Assets)*. The general principles described in the Core Asset AMP are applicable to this document, and some sections of the Core Assets AMP have been duplicated in this document for context and clarity.

This document’s scope includes

- Summaries of the asset inventories, condition, and replacement costs of the following asset groups:
 - Facilities (municipal buildings and structures)
 - Parks (improved lands and associated outdoor structures and furniture)
 - Fleet and Equipment (vehicles and capital equipment),
 - Green Assets (trees, forests, unimproved lands, watersheds, etc.)
- The levels of service that each asset group provides.
- Ten-year projections of the lifecycle activities required to maintain current levels of service, and their associated costs.

Note that this document does **not** include the following:

- A detailed description of the Town’s asset management practices. This information is included in *Deep River Asset Management Plan 2022 (Core Assets)*.
- Detailed descriptions of asset management practices for individual asset types. These are developed for each asset type with detailed five-year capital requirements outlined in the annual budgeting processes.
- Financial strategies or funding mechanisms to fully implement the lifecycle activity projections. These will be developed in the next stage of the asset management program (as required by O.Reg 588/17), and in conjunction with updates to the Financial Master Plan, Recreation and Culture Master Plan, Fleet Management Plan, and Energy Demand Management Plan.

1.4 Assumptions, limitations, and constraints

This document was prepared using condition data estimated from asset age and from various inspections performed by a combination of municipal staff and third-party service providers. Where condition data could not be obtained, estimates of the remaining *expected useful life (eu)* were used. More information about how the condition was determined for each asset group is contained in the relevant section.

The ten-year lifecycle activity projections are based on the condition ratings of each asset, and do not imply that the required work can *only* be done in the indicated year. The timing of the lifecycle activities listed in the ten-year projections should be used as input into the rolling detailed five-year capital project plans developed for each asset group.

In particular, the projected lifecycle costs for any specific year should be used as a guide only; the five- and ten-year annual averages provide a better representation of lifecycle costs.

Further, the actual selection of the maintenance / rehabilitation / replacement activity is determined through the analysis of on-the-ground conditions, treatment options, and expert advice from service providers. Where possible, coordinated projects which combine activities across asset groups are the preferred, practical option (for example, aligning replacement of HVAC rooftop units with roofing maintenance work).

2 The Town of Deep River

2.1 Our community today

The Town of Deep River is a lower-tier municipality in Renfrew County with a population of just under 4,200 residents. It is situated between the Ottawa River and the Trans-Canada Highway, approximately 200 km north-west of Ottawa within the Ottawa Valley. The Town was a planned community, originally established in the late 1940's to house employees at Chalk River Nuclear Laboratories and has seen cycles of growth and decline since. Today, the Town is home to a variety of high-tech, retail, and other commercial businesses.

2.2 Service Areas and Asset Classes

The Town of Deep River is responsible for managing public infrastructure which supports the delivery of a large number of services to local residents and the wider north Renfrew community. These include the treatment and supply of drinking water, the treatment of sanitary wastewater, stormwater management, a number of recreational and cultural facilities and programs, administrative services, emergency services, and an extensive network of roads and sidewalks. Table 2-1 summarizes the Town's main assets.

Table 2-1: Assets classes and subtypes

| Asset Class | Asset Group | Quantity |
|---|---------------------------------|---------------------|
| Non-Core Infrastructure | | |
| Facilities, Parks, Fleet, Equipment, and other assets | Facilities and Buildings | 18 |
| | Parks and associated structures | 20 |
| | Fleet and Equipment | 30 |
| | Green infrastructure assets | >1000 trees, >467Ha |
| Core Infrastructure¹ | | |
| Transportation | Roads | 41.1 km |
| | Sidewalks | 5.9 km |
| | Streetlights | 597 |
| | Traffic Signs | 274 |
| Water | Water Mains | 46.7 km |
| | Valves | 287 |
| | Hydrants | 241 |
| | Water Tower | 1 |
| | Booster Station | 1 |
| | Treatment Plant | 1 |
| Wastewater | Sanitary Mains | 28.3 km |
| | Maintenance Holes | 470 |
| | Treatment Plant | 1 |
| Storm Water | Storm Mains | 13.8 km |
| | Catch Basins | 251 |
| | Maintenance Holes | 186 |

1. As listed in *Deep River Asset Management Plan 2022 (Core Assets)*

2.3 Future Growth

The Town of Deep River is anticipated to have population growth of approximately 8% over the next 10 to 15 years. This growth is largely dependent on the two major employers in the area, Garrison Petawawa and Canadian Nuclear Laboratories. Residential housing growth will primarily be within the municipal urban area, and through the development of additional sub-divisions. These will require expansion of core municipal infrastructure (roads, water supply and wastewater collection).

It is not anticipated that the Town will require additional or expanded facilities, parks, fleet, or green assets to continue to provide the current levels of service for this expanded population. ***Therefore, no expansion or additions to the non-core asset inventory has been included in this asset management plan.***

2.4 Climate Change

One focus of the asset management plan is to identify the potential impacts of climate change. While the full effects of climate change are difficult to predict, it is likely that there will be substantial impacts to Town infrastructure and some services delivered by the Town.

The Atlantic Infrastructure Management Network recommends the use of the Climate Atlas of Canada (<https://climateatlas.ca/>) to estimate potential changes in local climate. The Climate Atlas uses data and modelling from the Pacific Climate Impacts Consortium to provide projections of precipitation and daily temperatures at the local level. According to these projections, the Town of Deep River may experience the significant changes to the local climate, including

- An increase in annual precipitation, more frequent high-rainfall and snow days, and an increase in the maximum precipitation per day.
- An increase in annual mean temperature of approximately 2.2°C, and a significant increase in the number of high temperature days.

These changes will have a significant impact on Deep River's non-core infrastructure. In particular, the increase in mean temperature and number high-temperature days will result in increased use of cooling and ventilation systems at the Town's facilities. This may result in shorter than *expected useful lives*. As part of reducing the Town's environmental impact, as buildings are renovated, or systems are replaced, the Town will improve insulation levels, transition from natural gas to electrical heating, and implement smart-building systems where possible.

Further, the Town's Fleet Management Plan includes a target to replace the Town's light- and medium-duty vehicle fleet with low and no-emission vehicles in the next ten years. The Town is also electrifying its small tools and equipment where feasible as they are replaced. (Duty cycles, usage frequency, and "range" are all considered when determining whether an electric replacement is feasible).

Green infrastructure assets are important in reducing the Town's environmental impact, in particular their function in reducing pollutants, heat-dome effects, and stormwater management.

3 Asset Management Planning

3.1 Components of an asset management plan

Asset management plans typically provide information related to describing the assets, their value, their risk and criticality levels, and the activities required to maintain the delivery of service over the life of the asset. The main components of a typical plan are shown in Table 3-1.

Table 3-1: Components of this asset management plan

| Information | Description |
|----------------------|--|
| Asset information | Inventory (list of assets) Attributes (size, material, etc.) Location Estimated current replacement costs |
| Lifecycle activities | Estimated useful life, and typical degradation over time Maintenance, rehabilitation, and reconstruction activities required over the life of the asset Costs of lifecycle activities Long-term projections of required activities and costs Inspection and condition assessment schedules |

3.2 Assessing the value of our assets

This Asset Management Plan relies on *estimated current replacement cost* as its basis for the valuation of each asset rather than *net book value*, which is typically used for financial reporting purposes. Total asset valuation is determined using a bottom-up approach, accounting for individual asset attributes (e.g., type, size, etc.). This approach is preferred for asset management because it is more representative of future funding needs and more useful for decision-making support than historical cost valuation methods.

Town staff have used a variety of methods to develop replacement unit costs for the assets described in this AMP. In most cases, these are based on recent capital project work, recent quotations, and surveys of other regional municipalities.

Town staff will continue to review and update replacement unit costs on a regular basis to ensure that future funding needs remain representative.

3.3 Assessing the condition of our assets

Understanding the condition of an asset is an essential step in identifying the future needs of that asset. Where possible and economical, the Town performs physical assessments of assets using industry-standard evaluation procedures. Condition assessments can involve different forms of evaluations, such as professional opinion, physical testing, and mathematical modelling, and may be completed through a detailed or a very cursory approach.

The Town of Deep River has various methods for assessing the condition of the assets described in this AMP. These are described in the Asset Group chapters below.

Ideally, all assets would undergo physical inspections to determine their condition, and therefore their likelihood of failure. Where this is not feasible, we rely on the asset's *expected useful life (eul)*. The asset's condition is then estimated based on its age relative to its *eul* (refer to Table 3-2).

Note that *expected useful life* only provides an indication of a potential requirement for rehabilitation or replacement – all actual work must be confirmed through performance monitoring, field inspections, etc. For example, many of the Town's assets are reaching the end of their expected life and therefore they are rated in *poor* and *very poor* condition. Many, however, are still fit for purpose, and therefore may not need immediate replacement.

Town staff estimated *expected useful lives* based on local experience, expert advice, and industry knowledge. A survey of asset management plans from other local municipalities was used as a final check of the range of *euls*.

Table 3-2: Description of condition ratings and comparison with Expected Useful Life

| Condition Rating | Definition | % <i>expected useful life</i> remaining ¹ |
|------------------|--|--|
| Very Good | Fit for the Future – The asset is typically new or recently rehabilitated. Very few elements exhibit deficiencies. Regular maintenance is required to maintain asset. | 90% to 100% |
| Good | Adequate for Now – The asset shows general signs of deterioration from normal use; however, the asset is still able to provide its intended function without problems. Few elements exhibit deficiencies. Levels of service are not affected. Regular maintenance continues to be required. | 75% to 90% |
| Fair | Requires Attention – The asset shows general signs of deterioration, likely from normal use but possibly as a result of another deficiency and requires repair or some rehabilitation. Levels of service may be negatively affected. Maintenance needs and costs will increase. | 40% to 75% |
| Poor | At Risk – The asset is approaching its estimated service life. It likely can no longer provide its intended design function, thus levels of service begin to be negatively affected. Major repairs or rehabilitation will be required, with the possibility for full replacement. | 15% to 40% |
| Very Poor | Unfit for Sustained Service – The asset demonstrates evidence of acute deterioration. Service levels will be negatively affected and there may be a risk to health and safety. Major rehabilitation or replacement required. | 0% to 15% |

¹: Indication only. The rate of deterioration differs across assets, and is typically not linear. Condition ratings and % eul remaining will be different for different asset types.

3.4 Assessing the criticality and risk of our assets

The risk associated with any particular asset is determined by assessing the likelihood of a failure (derived from the asset's condition and age) in conjunction with the consequence of that failure (the potential consequence of failure on that asset's ability to fulfill its purpose):

$$\text{Risk} = \text{Likelihood of Failure} \times \text{Consequence of Failure}$$

High risk levels are therefore associated with a high likelihood of failure, a severe consequence of that failure, or a combination of both.

In order to assess the potential consequence of an asset failure, each asset is assigned a *Criticality Index*. The *Criticality Index* defines the relative importance of the asset, and is related to the potential scale of level of service loss. The value of the *criticality index* is defined by a variety of attribute-based and community impact factors.

Attribute-based factors allow us to prioritize assets based on a specific quality or physical attribute (for example the diameter of a water pipe). Community impact factors are defined by location and socio-economic factors, for example, whether a road is a primary route for schools, or whether a waterline directly supplies the hospital. Community impact factors allow us to prioritize assets that have the greatest effect on the community.

Impact factors related to the provision of critical or life-safety services and the potential impact on the asset's Levels of Service were used to determine each asset's criticality.

3.5 Levels of Service

Levels of Service metrics are used to measure how well assets fulfill their intended functions or deliver the intended services. Ontario Regulation 588/17 included several technical and community metrics for core infrastructure that all municipalities are required to report against. No guidance, however, is provided for non-core assets.

For these assets, the following Levels of Service categories were used:

- **Capacity and Use:** the ability of the asset group to support the population
- **Function:** the ability of the asset to meet particular functions or requirements
- **Reliability:** the ability of the asset to fulfill its purpose over time
- **Affordability:** the cost and efficiency of the asset

3.6 Operations, maintenance, rehabilitation, and replacement activities

Throughout this Asset Management Plan, reference is made to *lifecycle activities*. These generally comprise maintenance, rehabilitation, and replacement activities.

Table 3-3: Definition of operations, maintenance, rehabilitation, and replacement

| Activity | Definition | Typical example | Typically funded from |
|----------------------------------|---|---|---|
| Operations | Activities designed to ensure that assets are used to their full potential. | Programming of swimming courses at the community pool; active use of fleet equipment with staff reporting asset deficiencies. | Operations budget |
| Maintenance | Actions necessary for retaining an asset as near as practicable to original condition. Maintenance slows down deterioration and delays need for rehabilitation/renewal. Maintenance activities can be further broken down into preventative, routine, and reactive maintenance. | Regular painting and structures; scheduled maintenance of equipment. | Operations budget |
| Rehabilitation | Rehabilitation activities attempt to return assets to near-original condition. Rehabilitation can be minor or major, depending on the nature of the work completed. | Overhauling of equipment; replacement of sub-components. | Operations or Capital budget depending on size and complexity |
| Replacement for renewal | Where assets can no longer meet the required level of service because the asset can no longer be rehabilitated in a cost-effective way, they be replaced entirely. | Purchase of a new vehicle. | Capital budget |
| Replacement for expansion | Where levels of service have increased such that assets can no longer meet their requirements (even at new condition), they would need to be expanded or replaced with higher capability assets. | Installation of additional ice surfaces; renovation of a facility to convert unused space into program rooms. | Capital budget |

The overall operations and maintenance goal is to maintain the current levels of service and mitigate risk while minimizing cost. While the Town has varying levels of proactive and reactive maintenance built into its operations, this, and improved reporting and data management are critical areas requiring development.

3.7 Developing long-term projections of lifecycle activities and costs

Ontario Regulation 588/17 requires a description and associated costs of the lifecycle activities (i.e. maintenance, rehabilitation, and replacement) that would need to be undertaken for each asset group to *maintain the current levels of service* for a ten-year period.

The ten-year projections described in this document result from an optimization analysis performed using the Town's asset management software (*Decision Optimization Technology* produced by Infrastructure Solutions Inc.). The analysis algorithm performs an iterative process to identify the type and timing of lifecycle activities required for each asset to minimize the overall risk rating of the system while maintaining the overall level of service. Staff then performed a qualitative assessment to validate and adjust these results.

O.Reg 588/17 requires that the Town's asset management plans be updated in 2025 to include more detailed financial analysis of what level of asset investment is affordable and sustainable, and what risks result from underfunding.

Many of the Town's non-core assets have reached or are approaching the end of their estimated useful lives. This means that, from a technical analysis perspective, many of the assets may need to be replaced in the short- and medium-term. However, most are still fit for purpose, and therefore may not need immediate replacement. Effective planning by Town staff is required to distribute the forecasted work over many years, allowing more even resource requirements.

Coordinated projects which combine activities across asset groups (for example, replacing HVAC rooftop units at the same time as roof rehabilitation work) may result in lower overall costs.

3.8 Relationship with Strategic and other plans and policies

The Town has an array of strategic, long-term planning documents that complement each other and work together to direct Deep River's future, including:

- The *Strategic Plan*, which outlines Council's priorities.
- The *Official Plan*, which outlines projected growth and land development.
- The *Recreation and Culture Master Plan* (in development), which guides recreational and cultural service delivery.
- The *Forest Management Plan – 2013*, which describes the town's tree and forest assets and their management. This plan will be updated in 2025/2026.
- The *Financial Master Plan*, which describes financial constraints and strategies for long term financial sustainability.
- The *Water and Wastewater Utility Rates Plan*, which outlines how the Town will continue to provide financially sustainable water and wastewater services.
- The Town's Accessibility Plan, which describes the strategies and actions to remove and prevent barriers to our residents enjoying equal access to our services.
- Etc.

The principles outlined in the Town's *Strategic Asset Management Policy 2019* were used in the development of this Asset Management Plan.

The Asset Management Plan is a dynamic document that will be reviewed and updated as Council and staff identify changing needs or requirements. This will generally occur during the regular strategic plan updates and review cycles. In particular, the *Recreation and Culture Master Plan*

currently in development will directly impact the asset management planning for the Town's facilities and parks.

3.9 Ongoing development of asset management capabilities

Staff have identified the following improvements as specific focus areas:

- The ongoing development of detailed service-level asset management plans, which include detailed five-year plans,
- More detailed analysis of the Town's green infrastructure assets,
- Comprehensive engagement with Council and our community to determine future Levels of Service,
- Improved financial information and more detailed capital planning at the asset group level,
- Improved data collection, specifically regarding maintenance, repair, rehabilitation, and replacement work, and
- Improved communication and knowledge sharing of asset management principles and practices internally and externally.

4 Overall State of Assets

4.1 Asset Valuation and Condition

Table 4-1 shows the replacement value of the various asset groups and their estimated condition.

Table 4-1: Summary of asset valuation and condition

| Asset class | Estimated Current Replacement Value | Average condition of network | % of assets in | | | | |
|---------------------------------------|-------------------------------------|------------------------------|---------------------|----------------|----------------|----------------|---------------------|
| | | | Very poor condition | Poor condition | Fair condition | Good condition | Very good condition |
| <i>Facilities and Buildings</i> | \$89,863,200 | Fair | 23% | 23% | 23% | 24% | 6% |
| <i>Parks and associated equipment</i> | \$11,502,000 | Good | 0% | 0% | 13% | 33% | 17% |
| <i>Fleet and Equipment</i> | \$6,086,000 | Fair | 0% | 20% | 33% | 27% | 20% |
| <i>Green Infrastructure</i> | >\$900,000 ¹ | Good ² | n/a | n/a | n/a | n/a | n/a |
| Overall | \$108,351,200 | Fair | 12% | 23% | 29% | 21% | 14% |

1. Only street trees have been valued. Replacement values for other green assets have not yet been established.
2. The majority of the Town's green assets are in a naturalized state. No detailed condition assessment has been performed.

4.2 Ten-year projection of lifecycle activities and costs

Table 4-2 contains the summary of projected total costs per asset group.

Table 4-2: Summary of projected annual costs over ten years

| Asset class | Average annual cost for ten-year period | Average annual cost for five-year period | |
|---------------------------------------|---|--|------------------|
| | | 2025 - 2029 | 2030 - 2034 |
| <i>Facilities and Buildings</i> | \$443,400 | \$618,000 | \$268,800 |
| <i>Parks and Associated equipment</i> | \$66,500 | \$95,000 | \$38,000 |
| <i>Fleet and Equipment</i> | \$574,100 | \$608,600 | \$539,600 |
| <i>Green Infrastructure</i> | \$15,000 | \$15,000 | \$15,000 |
| Overall | \$1,099,000 | \$1,336,600 | \$861,400 |

5 Facilities and Buildings

5.1 Inventory

The table below summarises the Facility and Building assets owned by the Town of Deep River.

Table 5-1: Facility and Building assets by service area

| Recreation and Cultural Facilities | | |
|---|-------------------------------|--|
| • Arena | • Marina building and docks | • Community Pool |
| • Grouse Park (canteen, washrooms, storage) | • Library | • Lamure Beach Lifeguard Station |
| Community Facilities | | |
| • Community Centre | • Woodworking Building | • Keys Conference Centre (6 and 12 River Road) |
| Administrative and other Facilities | | |
| • Town Hall | • Police Station | • Fire Station |
| Operations buildings | | |
| • Public Works Admin and Garage | • Public Works – Cold storage | • Public works – Salt Shed |
| • Public Works – Small Shed | • Public Works – Walker Shed | • Public Works – Sand Shed |
| • Public Works – Pole Shed | | |

5.2 Inventory not included in the Asset Management Plan

Facilities and structures associated with the water and wastewater treatment plants are not included in this asset management plan. These are included in the Core Assets AMP.

At the time of writing, the Town and County of Renfrew had offered to purchase the unused Keys Public School from the Renfrew County and District School Board. An agreement has not yet been reached, and therefore the school building has not been included in this AMP.

5.3 Levels of Service

Levels of service measure the actual service delivered by an asset group so that decisions can be made about their fitness for purpose, rather than their absolute condition.

The level of service measures for the Town’s Facilities and structures are shown in the table below.

Table 5-2: Levels of service for Facility and Building assets

| Service Attribute | Community Level of Service | Technical Level of Service | Current Overall Performance (2024) |
|-------------------|--|---|---|
| Capacity and use | Provide sufficient capacity to support service delivery | Percent of total facility area which is vacant / un-used on a regular basis | <5% (Mezzanine level at Community Pool; sections of PW-Cold Storage building) |
| Function | Provide accessible facilities | Number of facilities with accessible features (entrances, washrooms, elevators, etc.) | Rec. and Culture: 3 out of 6 Administration: 3 out of 3 Community: 0 out of 3 Operations: 0 out of 7 |
| Reliability | Maintain assets in a state of good repair | Number of facilities in fair or better condition | Rec. and Culture: 3 out of 6 Administration: 3 out of 3 Community: 0 out of 3 Operations: 4 out of 7 |
| Affordability | Provide sustainable and affordable services over the long term | Average annual maintenance / renewal investment (across operating and capital budgets over last five years) | <i>Still to be determined</i> |

5.4 Asset condition and replacement value

All Facility and Building assets were inspected by staff and condition assessments were performed at the Facility component level (using the Uniformat II standard). Third-party inspections are also conducted every four to five years by the Town’s insurance provider.

Replacement costs are estimated based on component-level costing and insured replacement values. The table below also includes estimated actual replacement values for the Town’s large value facilities based on the cost of new builds of similar facilities at other municipalities. The significant differences between the insured values and actual replacement costs reflect changes in building code standards, additional functionality, improved energy efficiency systems, etc.

The condition ratings listed below are an approximate average of the condition of the asset’s components, weighted by their replacement cost. In some cases, the condition of a single, expensive component will “overshadow” the condition of the other components. For example, the ice surface and slab at the arena is in very poor condition, while the mezzanine area is in very good condition.

Table 5-3: Inventory, value and condition of Facilities and Building assets

| Asset | Year built | Estimated replacement cost 2024 | Overall Condition | Comments |
|--|------------|---------------------------------|-------------------|--|
| Recreation and Cultural Facilities | | \$56,679,200 | Fair | |
| Arena | <1960 | \$20,176,000 ¹ | Poor | Ice surface slab in very poor condition. Insured value: \$8,384,800. Includes Olympia ice resurfacer |
| Marina (building, docks, equipment) | 2015 | \$1,305,300 | Fair | |
| Community Pool | 1974 | \$25,000,000 ² | Poor to Fair | Once completed, the ongoing repairs and rehabilitation of the Community Pool's roof and walls will improve the overall condition to Good. Insured value: \$4,717,400 |
| Pat McNulty Park (canteen, washrooms, storage) | 1980 | \$183,100 | Fair | |
| Library | 1995 | \$10,000,000 ³ | Good | Insured value: \$7,402,800 |
| Lamure Beach building | <1980 | \$190,800 | Poor | |
| Community Facilities | | \$2,517,400 | V. poor | |
| Community Centre | <1960 | \$1,752,000 | V. poor | Most building components in v. poor condition |
| Woodworking Building | 1948 | \$622,800 | V. poor | Most building components in v. poor condition |
| Keys Conference Centre (6 and 12 River Rd) | ~1950 | \$142,600 | V. poor | Most building components in v. poor condition |
| Administrative Facilities | | \$25,000,000 | Fair | |
| Town Hall (incl. Police Station and Fire Hall) | 1990 | \$25,000,000 ⁴ | Fair | Insured value: \$8,467,700 |
| Operations Facilities | | \$5,666,600 | Fair | |
| PW – Admin and Garage | 1967 | \$4,500,000 ⁵ | Poor | Admin offices are in v. poor condition. Garage section recently renovated. Insured value: \$1,795,200 |
| PW – Cold storage | 1968 | \$398,100 | V. poor | Building can only be used for cold storage. |
| PW – Salt Shed | 2015 | \$106,000 | Good | |
| PW – Small Sheds | 1960+ | \$64,100 | Good | |
| PW – Walker Shed | 1967 | \$202,900 | Good | |
| PW – Sand Shed | 2016 | \$344,600 | Fair | |
| PW – Pole Shed | 2024 | \$50,900 | V. good | |

1. New twin-pad arena in North Bay estimated at \$60 million (<https://northbay.ca/our-community/sports-facilities/arenas/north-bay-community-recreation-centre/>)
2. New Community Pool and Wellness Centre in the Town of Saugeen Shores estimated at \$50 million (<https://www.saugeenshores.ca/en/news/council-approves-construction-of-aquatic-wellness-centre.aspx>)
3. New library in the Township of Meaford cost \$5.5 million (<https://www.meaford.ca/en/explore-play/new-library-building.aspx>)
4. New Town Hall civic centre in the Township of Tiny estimated at \$25.6 million (<https://www.tiny.ca/township-hall/new-building>)
5. New Public Works garage and admin offices in the Town of Hawkesbury estimated at \$5,000,000 (<https://thereview.ca/2022/09/16/to-build-new-or-renovate-hawkesbury-council-considering-options-for-municipal-garage/>)

| Treatment | Total ten-year projection | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 and beyond |
|---|---------------------------|--------|--------|-------|--------|-------|--------|-------|---------|-------|---------|-----------------|
| Pat McAnulty Park (building) | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | |
| Library | 240,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 45,000 | 5,000 | 5,000 | 5,000 | 155,000 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 50,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | |
| Rehab.: Replacement / refurbishment of HVAC units | 40,000 | | | | | | 40,000 | | | | | |
| Rehab.: Refurbishment of elevator ¹ | 150,000 | | | | | | | | | | 150,000 | |
| Lamure Beach Building | 80,000 | 36,000 | 1,000 | 1,000 | 46,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | |
| Rehab.: Bathroom renovation | 30,000 | 30,000 | | | | | | | | | | |
| Rehab.: Roof refurb. | 40,000 | | | | 40,000 | | | | | | | |
| Community Centre | 242,000 | 1,000 | 36,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 200,000 | 0 | 0 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 7,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | | | | |
| Rehab.: Refurb. of roof and concrete footings | 35,000 | | 35,000 | | | | | | | | | |
| Disposal: Demolition | 200,000 | | | | | | | | 200,000 | | | |
| Woodworking Building | 242,000 | 1,000 | 36,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 200,000 | 0 | 0 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 7,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | | | | |
| Rehab.: Refurb. of roof and concrete footings | 35,000 | | 35,000 | | | | | | | | | |
| Disposal: Demolition | 200,000 | | | | | | | | 200,000 | | | |
| Keys Conference Centre | 40,000 | 40,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Disposal: Demolition | 40,000 | 40,000 | | | | | | | | | | |

| Treatment | Total ten-year projection | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 and beyond |
|--|---------------------------|----------------|----------------|---------------|---------------|--------------|----------------|--------------|--------------|--------------|--------------|-----------------|
| Town Hall (incl. Police and Fire Stations) | 825,000 | 260,000 | 255,000 | 45,000 | 45,000 | 5,000 | 195,000 | 5,000 | 5,000 | 5,000 | 5,000 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 105,000 | 60,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | |
| Rehab.: Refurbishment of roof and parapet siding | 200,000 | 200,000 | | | | | | | | | | |
| Rehab.: Replacement of backup power generator | 250,000 | | 250,000 | | | | | | | | | |
| Rehab.: Replacement/refurbishment of HVAC units | 80,000 | | | 40,000 | 40,000 | | | | | | | |
| Rehab.: Refurb. of exterior masonry and siding | 40,000 | | | | | | 40,000 | | | | | |
| Rehab.: Refurbishment of elevator ¹ | 150,000 | | | | | | 150,000 | | | | | |
| Public Works (various buildings) | 525,000 | 130,000 | 5,000 | 5,000 | 5,000 | 5,000 | 355,000 | 5,000 | 5,000 | 5,000 | 5,000 | 0 |
| Maint.: Minor repairs, interior refinishing, etc. | 50,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | |
| Rehab.: Renovation of Admin building | 125,000 | 125,000 | | | | | | | | | | |
| Replace.: Demolition and replacement of cold storage area | 350,000 | | | | | | 350,000 | | | | | |

1. The timing of the elevator refurbishments has not been determined. Estimated costs have been included at the 40-year age.

6 Parks and associated equipment

6.1 Inventory

The table below summarises the Park and associated equipment assets owned by the Town of Deep River.

Table 6-1: Parks and associated equipment assets by service area

| Playgrounds | | |
|--|----------------------------------|--------------------|
| • Unity Park | • Pat McAnulty Park | • Huron Park |
| • Silvie Park | • Hill Park | • Marina Park |
| • Lamure Beach | | |
| Sports Fields and associated equipment | | |
| • Pat McAnulty Park | | |
| Parkland and Open Space; outdoor furniture | | |
| • Riverbank Park | • Bill Rounding Park | • Hill Park |
| • Riverview Park (downtown) | • Lamure Beach | • Pine Point Beach |
| • Various outdoor furniture | • Huron Park | |
| Trails ¹ | | |
| • Riverbank Park | • East-end trails (Four Seasons) | • West End trails |
| • Various informal urban trails | | |

1. Except for the Riverbank Park trails along the waterfront, the extensive trail network in Deep River is largely informal and not formally maintained by the Town.

6.2 Inventory not included in the Asset Management Plan

The following similar assets are not included in this AMP:

- **The Campus soccer fields:** these are owned and operated by the Renfrew County and District School Board.
- **The baseball equipment in Bill Rounding Park and Hill Park:** these are no longer in use. Removal and disposal costs are regarded as minimal, and have therefore not been included in this plan.

6.3 Levels of Service

Levels of service measure the actual service delivered by an asset group so that decisions can be made about their fitness for purpose, rather than their absolute condition.

The level of service measures for the Town's Parks and associated equipment are shown in the table below.

Table 6-2: Levels of service for Parks and associated equipment assets

| Service Attribute | Community Level of Service | Technical Level of Service | Current Overall Performance (2024) |
|-------------------|--|---|---|
| Capacity and use | Provide sufficient capacity to support service delivery | Parkland and open space area per household (excluding urban forests and unimproved lands) | >150m ² / household |
| | | Residents per playground | 600 residents / playground |
| Function | Provide accessible facilities | Number of playgrounds with accessible features | 2 out of 7 playgrounds at least partially accessible |
| | | Length of accessible trails | 470m trail along waterfront is partially accessible. |
| Reliability | Maintain assets in a state of good repair | Number of assets in fair or better condition | Playgrounds: 7 out of 7 Sports Fields: 1 out of 1 Parkland / Open space: 6 out of 6 Trails: not applicable |
| Affordability | Provide sustainable and affordable services over the long term | Average annual maintenance / renewal investment (across operating and capital budgets over last five years) | <i>Still to be determined</i> |

6.4 Asset condition and replacement value

All parkland and open space assets are inspected by staff regularly. In particular, daily, weekly and monthly inspections of all playground and sporting equipment are performed, as required by legislation.

Replacement costs are estimated based on component-level costing and insured replacement values. Improved lands have been costed at \$50/m², approximately the 2024 cost of restoring topsoil, turf, and tree cover. This rate does not include the cost of the land itself.

Although the majority of the trail network in Deep River (~62km) is not maintained by the Town, the network provides substantial value to the Town. Its replacement cost has been estimated based on the approximate cost of clearing forested land (\$10/m), and where currently in place, the cost of a crushed stone pathway (additional \$50/m).

The condition ratings listed below are an approximate average of the condition of the asset's components, weighted by their replacement cost. In some cases, the condition of a single, expensive component will "overshadow" the condition of the other components.

Table 6-3: Inventory, value and condition of Parks and associated equipment assets

| Asset | Age | Replacement cost 2024 | Overall Condition | Comments |
|---|----------|-----------------------|-------------------|--|
| Playgrounds | | \$529,000 | Good | |
| Unity Park | <10 yrs | \$257,000 | V. good | Accessible playground structure. Including gazebo, skateboard ramps |
| Pat McAnulty Park playground | <10 yrs | \$91,000 | V. good | Partially accessible playground structure. |
| Huron Park playground | 10-15yrs | \$28,000 | Good | |
| Silvie Park playground | 10-15yrs | \$28,000 | Good | |
| Hill Park playground | 10-15yrs | \$39,000 | Good | |
| Lamure Beach | <10 yrs | \$26,000 | Fair | Including shelter area |
| Marina Park | <10 yrs | \$60,000 | Fair | Including shelter area |
| Sports fields | | \$1,950,000 | Fair | |
| Pat McAnulty Park | various | \$1,950,000 | Fair | Including fields, nets, scoreboards, surfaces, bleachers, etc. Based on insured values for equipment and land value. |
| Parkland and Open Space; outdoor furniture | | \$8,375,000 | Good | |
| Riverbank Park | n/a | \$700,000 | Good | 1.25 Ha. Including 2 gazebos and bridge |
| Bill Rounding Park | n/a | \$4,820,000 | Good | 9.64 Ha. Including community gardens |
| Riverview Park | n/a | \$112,000 | Good | 0.22 Ha. |
| Hill Park | n/a | \$1,515,000 | Good | 3.0 Ha |
| Huron Park | n/a | 78,000 | Good | 0.15 Ha |
| Lamure Beach | n/a | 500,000 | Good | ~1.0 Ha. Including rest shelter |
| Pine Point Beach | n/a | 500,000 | Good | ~1.0 Ha. |
| Various outdoor furniture | various | \$150,000 | Fair | Includes >100 benches, tables, trashcans, etc. |
| Trails | | \$648,000 | V. good | |
| Riverbank Park | n/a | \$30,000 | Good | ~470m. Approx. cost for clearing land and crushed stone pathway (\$60/m). |
| East-end trails (Four Seasons area) | n/a | \$475,000 | V. good | ~47.5km. Not maintained by town. Approx. cost for clearing and trail prep (\$10/m) |
| West-end trails | n/a | \$80,000 | V. good | ~8.0km. Not maintained by town |
| Various urban trails | n/a | \$63,000 | V. good | ~6.3km. Not maintained by town |

6.5 Ten-year projection of lifecycle activities and costs

The tables below describe the significant lifecycle activities and estimated cost for each asset group.

Table 6-4: Projected significant lifecycle activities for Parks and associated equipment assets

| Treatment | Total ten-year projection | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 and beyond |
|--|---------------------------|---------------|----------------|----------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|-----------------|
| Playgrounds | 335,000 | 3,500 | 3,500 | 103,500 | 3,500 | 3,500 | 103,500 | 3,500 | 3,500 | 3,500 | 3,500 | 0 |
| Maint.: Minor repairs, painting, etc. | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | |
| Rehab.: Replacement of underlying surfaces | 25,000 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | |
| Replace: Replacement of playground struc. | 300,000 | | | 100,000 | | | 100,000 | | | 100,000 | | |
| Sports field | 310,000 | 62,500 | 177,500 | 52,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 0 |
| Maint.: Minor repairs, surface maint, etc. | 25,000 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 | |
| Rehab.: Replace lighting on diamond | 60,000 | 60,000 | | | | | | | | | | |
| Rehab.: Refurb. bleachers | 50,000 | | | 50,000 | | | | | | | | |
| Rehab.: Refurb. netting | 25,000 | | 25,000 | | | | | | | | | |
| Parklands and Open space | 110,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | 11,000 | |
| Maint.: Tree and turf maintenance, etc. | 50,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | |
| Maint.: Minor repairs, refinishing of furniture | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | |
| Replace.: Replacement of end-of-life furniture | 50,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | |
| Trails | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 0 |
| Maint.: Surface maint. | 10,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | |
| | | | | | | | | | | | | |

7 Fleet and Equipment

This section is a summary of the Town’s Fleet Resource Plan ([link here](#)). The inventory description has been updated for 2024.

7.1 Inventory

The table below summarises the Town’s fleet of vehicles and equipment.

Table 7-1: Inventory of Fleet and Equipment assets

| | | |
|--------------------------------------|---------------------------------|--------------------------------|
| Light- and medium-duty trucks | | |
| • 2008 Chevrolet Silverado | • 2016 Dodge Ram 3500 | • 2012 Dodge RAM 1500 |
| • 2018 Chevrolet Silverado | • 2018 Chevrolet Silverado | • 2014 Ford F150 XLT |
| Heavy-duty trucks | | |
| • 2008 International dump truck | • 2014 International dump truck | • 2023 Freightliner plow truck |
| • 2016 Freightliner plow truck | | |
| Heavy equipment | | |
| • 2006 Komatsu Loader | • 2011 John Deere Loader | • 2014 John Deere Backhoe |
| Operations – other equipment | | |
| • 2024 Trackless | • 2009 Trackless | • 2021 Wood chipper |
| • 2003 Mobile Compressor | • 2007 Sewer Flusher & Rodder | • Steam Generator |
| • 2015 Zero turn mower | • 2017 Zero turn mower | |
| Administration | | |
| • 2019 Tesla Model 3 | | |
| Fire Service | | |
| • 2007 International Tanker | • 2013 International Pumper | • 2024 Freightliner Pumper |
| • 2013 Dodge Ram 1500 | | |
| Police Service | | |
| • 2023 Ford Explorer | • 2020 Chevrolet Tahoe | • 2016 Dodge Charger |

7.2 Inventory not included in the Asset Management Plan

Only equipment with a replacement value of greater than \$10,000 has been included in this AMP.

The following assets are not included in this AMP: small equipment such as lawnmowers, chainsaws; individual computers and IT hardware; office furniture and equipment.

7.3 Levels of Service

Levels of service measure the actual service delivered by an asset group so that decisions can be made about their fitness for purpose, rather than their absolute condition. The level of service measures for the Town’s fleet and equipment are shown in the table below.

Table 7-2: Levels of service for Fleet and Equipment assets

| Service Attribute | Community Level of Service | Technical Level of Service | Current Overall Performance (2024) |
|-------------------|--|---|--|
| Capacity and use | Provide sufficient capacity to support service delivery | Maintain minimum maintenance standards for roads and sidewalks | 100% |
| Function | Safe working conditions | Equipment related injuries resulting in lost time | 0 |
| Reliability | Maintain assets in a state of good repair | Number of assets in fair or better condition | Light/med. duty trucks: 3 out of 6 Heavy trucks: 3 out of 4 Heavy equipment: 3 out of 3 Ops Other equipment: 7 out of 8 Fac. Other equipment: 1 out of 1 Administration: 1 out of 1 Fire Service: 4 out of 4 Police Service: 2 out of 3 |
| Affordability | Provide sustainable and affordable services over the long term | Average annual maintenance / renewal investment (across operating and capital budgets over last five years) | <i>Still to be determined</i> |

7.4 Asset condition and replacement value

The Town’s fleet conditions are evaluated based on the Estimated Service Life (ESL) of the vehicle compared to the actual service life using either the age of the asset or the expected end of service based on usage. All fleet and equipment assets are regularly inspected and maintained by staff and specialist providers. Statistics Canada publishes depreciation rates for commercial use vehicles (refer to table below). Due to low mileage, the Town is able to use vehicles and equipment for longer than average.

Replacement costs are estimated based on market prices for equivalent vehicles and equipment. Insured values are used as a reference.

Table 7-3: Inventory, value and condition of Fleet and Equipment assets

| Asset | Age | Replacement cost 2024 | Overall Condition | Comments |
|-------------------------------------|---------|-----------------------|-------------------|---|
| Light and medium duty trucks | | \$440,000 | Fair | |
| 2008 Chevrolet Silverado | 16 yrs | \$90,000 | Poor | To be replaced in 2024/2025 |
| 2016 Dodge Ram 3500 | 8 yrs | \$90,000 | Good | |
| 2012 Dodge RAM 1500 | 12 yrs | \$65,000 | Poor | To be replaced in 2024/2025 |
| 2018 Chevrolet Silverado | 6 yrs | \$65,000 | Good | |
| 2018 Chevrolet Silverado | 6 yrs | \$65,000 | Good | |
| 2014 Ford F150 XLT | 10 yrs | \$65,000 | Poor | |
| Heavy duty trucks | | \$1,360,000 | Fair | |
| 2008 International dump truck | various | \$340,000 | Poor | |
| 2014 International dump truck | 10 yrs | \$340,000 | Fair | |
| 2023 Freightliner plow truck | 1 yr | \$340,000 | V. good | |
| 2016 Freightliner plow truck | 8 yrs | \$340,000 | Good | |
| Heavy equipment | | \$900,000 | Fair | |
| 2006 Komatsu Loader | 18 yrs | \$300,000 | Fair | Replacement value based on used vehicle |
| 2011 John Deere Loader | 13 yrs | \$300,000 | Fair | Replacement value based on used vehicle |
| 2014 John Deere Backhoe | 10 yrs | \$300,000 | Good | Replacement value based on used vehicle |
| Operations – other equipment | | \$790,000 | Fair | |
| 2024 Trackless | 0 yrs | \$230,000 | V. good | |
| 2009 Trackless | 15 yrs | \$230,000 | Fair | |
| 2015 Zero turn mower | 9 yrs | \$20,000 | Poor | To be replaced in 2024/2025 |
| 2017 Zero turn mower | 7 yrs | \$20,000 | Fair | |
| 2021 Wood chipper | 3 yrs | \$65,000 | V. good | |
| 2003 Mobile Compressor | 21 yrs | \$75,000 | Fair | |
| 2007 Sewer Flusher & Rodder | 17 yrs | \$120,000 | Fair | |
| Steam Generator | >15 yrs | \$30,000 | Good | |
| Administration | | \$45,000 | Good | |
| 2019 Tesla Model 3 | 5 yrs | \$45,000 | Good | |
| Fire Service | | \$2,170,000 | Fair | |
| 2007 International Tanker | 17 yrs | \$700,000 | Fair | |
| 2013 International Pumper | 11 yrs | \$700,000 | Good | |
| 2024 Freightliner Pumper | 0 yrs | \$700,000 | V. good | |
| 2013 Dodge Ram 1500 | 11 yrs | \$70,000 | Fair | |
| Police Service | | \$205,000 | Fair | |
| 2023 Ford Explorer | 1 yr | \$80,000 | V. good | |
| 2020 Chevrolet Tahoe | 4 yrs | \$80,000 | Fair | |
| 2016 Dodge Charger | 8 yrs | \$45,000 | Poor | To be replaced in 2024/2025 |

7.5 Ten-year projection of lifecycle activities and costs

The tables below describe the significant lifecycle activities and estimated cost for each asset group.

Table 7-4: Projected significant lifecycle activities for Fleet and Equipment assets

| Treatment | Total ten-year projection | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 and beyond |
|---|---------------------------|---------|---------|---------|---------|--------|--------|---------|--------|---------|---------|-----------------|
| Maintenance of all vehicles and equipment (~5% of CRV) | 600,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | |
| Replace: Light and medium duty trucks | 440,000 | 220,000 | 0 | 0 | 130,000 | 0 | 0 | 90,000 | 0 | 0 | 0 | 0 |
| Replace: Heavy duty trucks | 1,020,000 | 0 | 340,000 | 0 | 0 | 0 | 0 | 340,000 | 0 | 340,000 | 0 | 0 |
| Replace: Heavy equipment | 900,000 | 0 | 300,000 | 0 | 300,000 | 0 | 0 | 300,000 | 0 | 0 | 0 | 0 |
| Replace: Operations – other equipment | 750,000 | 0 | 0 | 150,000 | 230,000 | 0 | 75,000 | 65,000 | 0 | 0 | 230,000 | 0 |
| Replace: Administration | 45,000 | 0 | 0 | 0 | 0 | 45,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Replace: Fire Service | 1,470,000 | 70,000 | 0 | 0 | 700,000 | 0 | 0 | 0 | 0 | 700,000 | 0 | 0 |
| Replace: Police Service | 516,000 | 86,000 | 0 | 86,000 | 86,000 | 0 | 0 | 86,000 | 86,000 | 86,000 | 0 | 0 |

8 Green Assets

8.1 Inventory

Ontario Regulation 588/17 defines *green infrastructure assets* as assets “consisting of natural or human-made elements that provide ecological and hydrological functions and processes and include natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.” The figure below shows some further examples.

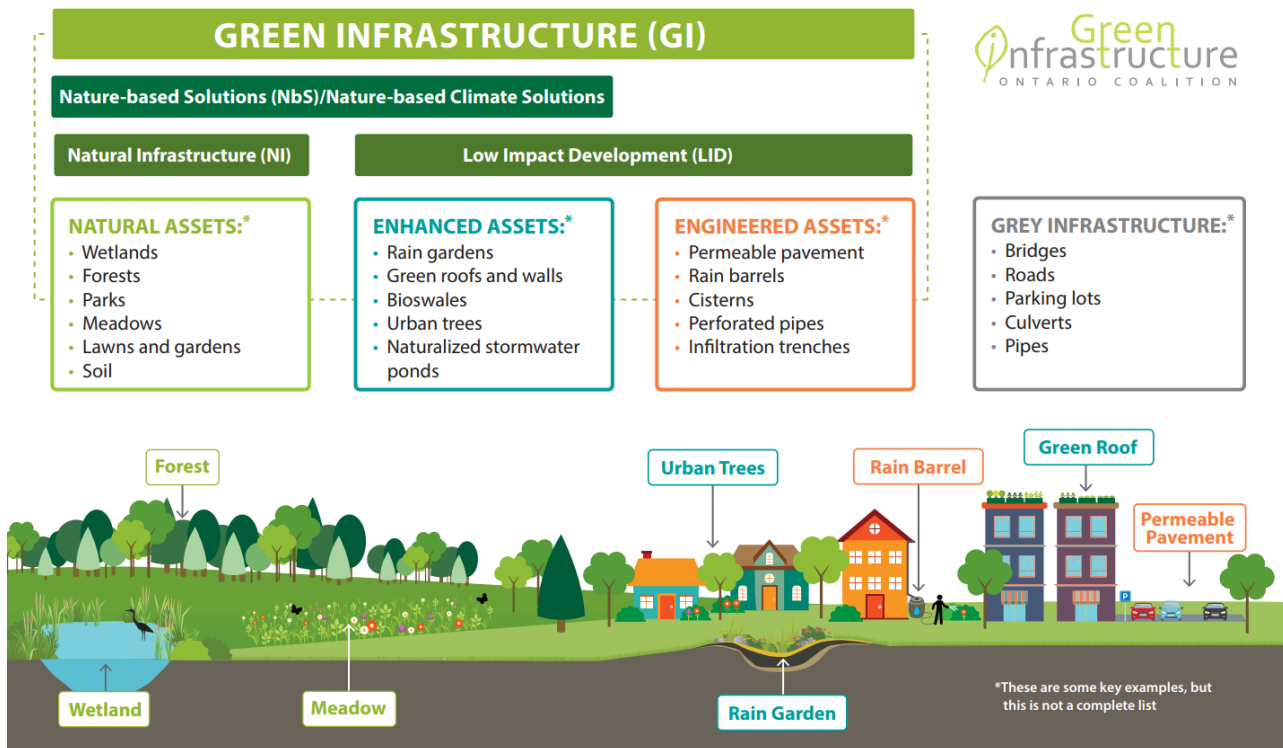


Figure 8-1: Examples of green infrastructure assets (sourced from the Green Infrastructure Ontario Coalition (<https://greeninfrastructureontario.org/>))

Green infrastructure assets provide significant benefits including pollutant reduction, increased biodiversity, stormwater management, reduction of heat-dome effects, and others.

This AMP represents an initial step in better incorporating green infrastructure assets into the Town’s asset management program. The Town’s *Forest Management Plan – 2013* ([link here](#)) describes the Town’s street trees, urban forest patches, and large forest areas, and includes asset management activities. This AMP should be read in conjunction with the Forest Management Plan.

Staff have worked to identify Deep River’s other significant green infrastructure assets. However, at this time, we have not yet performed a more detailed analysis of their long-term value, the lifecycle

activities to manage and expand their benefits, nor determined levels of service. These are areas for future development and improvement.

Table 8-1: Inventory of Green Infrastructure Assets

| Urban forests | | |
|-------------------------|--|--------------------------|
| • Street trees | • Urban forest patches (groups of 10+ trees) | • Large forests |
| Watersheds and wetlands | | |
| • Walker Creek | • Kennedy Creek | • Ottawa River shoreline |

8.2 Inventory not included in the Asset Management Plan

The following similar assets are not included in this AMP:

- **AECL and other private open space or vacant land.**

8.3 Levels of Service

Levels of service measure the actual service delivered by an asset group so that decisions can be made about their fitness for purpose, rather than their absolute condition.

At this time, staff have identified draft Levels of Service for the Town’s green assets based on similar AMPs from other municipalities. Several definitions and methods of determining current performance are still in development.

Table 8-2: Levels of Service for green infrastructure assets

| Service Attribute | Community Level of Service | Technical Level of Service | Current Overall Performance (2024) |
|-------------------|--|---|--|
| Capacity and use | Provide sufficient capacity to support service delivery | Urban forests and unimproved land area per household | >0.25Ha / household (2,500m ² / household) |
| Function | Protect and grow our tree canopy, green spaces and forests | Urban tree canopy coverage | <i>Still to be determined</i> |
| Reliability | Maintain assets in a state of good repair | Percentage of street trees in fair or better condition | <i>Refer to Forest Management Plan – 2013 (to be updated in 2025/2026)</i> |
| Affordability | Provide sustainable and affordable services over the long term | Average annual maintenance / renewal investment (across operating and capital budgets over last five years) | <i>Still to be determined</i> |

8.4 Asset condition and replacement value

Condition of the Town’s green assets has not been evaluated in detail. The Town’s Forest Management Plan will be updated in 2025/2026, and will include a detailed update of the urban tree and forested areas inventory and their condition. At the time of the previous survey, over 980 urban trees were identified. Some of these have since been removed, and new trees have been planted. In particular, a pilot program to grow the Town’s street tree canopy was initiated in 2023, with over 250 new trees planted in the last two years.

Urban forest patches, and the large forests are in a naturalized state, with little maintenance performed. Where necessary, trees or vegetation which are likely to cause person or property damage are removed. This includes invasive species. The Town has not yet established estimated replacement costs for these assets.

The Town’s Official Plan identifies the wetlands and watersheds along Walker Creek and Kennedy Creek, and the shoreline of the Ottawa River as natural heritage features. The Town has not yet established estimated replacement costs for these assets.

Table 8-3: Inventory, value and condition of Facilities and Building assets

| Asset | Number / area | Replacement cost 2024 | Overall Condition | Comments |
|------------------------|---------------|-----------------------|-------------------------|---|
| Urban forests | | \$900,000 | Good | |
| Street Trees | ~1,000 trees | \$900,000 | Good | Replacement value based on City of Ottawa’s replacement rate of \$900 / tree. |
| Urban forest patches | >67 Ha | n/a | Good | As identified in the FMP. Over 50 patches have been identified |
| Large forests | >400 Ha | n/a | Naturalized | As identified in the FMP. Some historical logging activity has occurred. |
| Watersheds | | n/a | Fair | |
| Walker Creek | | n/a | Naturalized | |
| Kennedy Creek | | n/a | Naturalized | |
| Ottawa River shoreline | | n/a | Developed in some areas | |

8.5 Ten-year projection of lifecycle activities and costs

No detailed analysis of future lifecycle activities to maintain, enhance and grow the Town’s green infrastructure has been performed to date. The costs detailed in the table below only include the Town’s current street tree maintenance program.

Table 8-4: Projected lifecycle costs for green infrastructure assets

| Asset | Estimated 10-year lifecycle costs | Comments |
|------------------------|-----------------------------------|--|
| Urban forests | | |
| Street Trees | \$150,000 | Annual tree maintenance program costs ~\$15,000 (includes maintenance, removal and planting) |
| Urban forest patches | n/a | |
| Large forests | n/a | |
| Watersheds | | |
| Walker Creek | n/a | None identified at this time |
| Kennedy Creek | n/a | None identified at this time |
| Ottawa River shoreline | n/a | None identified at this time |