



THE MUNICIPALITY OF CENTRAL ELGIN

# 2021 ASSET MANAGEMENT PLAN

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**Asset Management (AM)** – Coordinated activities undertaken to realize optimal value from its assets. This includes all activities and practices to deliver clearly stated objectives through the cost-effective lifecycle management.

**Asset Class Growth** – Adding assets as a result of a desire for increased Level of service or an assumption of assets not previously owned.

**Condition** – Physical state of an asset

**Community Level of Service** – Measuring the customer's satisfaction with the services provided

**Customer** – Any person who uses or is affected by a community asset or service.

**Criticality** – Measurement of the effect or impact on the municipality if an asset fails

**Detailed Asset Management Plan (DAMP)** – A document that clearly explains what Central Elgin plans to do with its asset with respect to acquisition, maintenance, operation, risks and disposal and what levels of service will be delivered as a result of planned activities

**Financial Planning & Management** – Estimating funding and finance needs and then deciding how to raise funds through various methods which include operational savings, raising taxes, user fees or borrowing costs.

**Level of Service (L.O.S.)** – Organisational levels of service statements describe the intended outputs or activities undertaken to deliver a service to its customers.

**Lifecycle** – The various phases of an assets Whole Life – Construction, Operation, Maintenance, Disposal

**Maintenance** – Ongoing management of deterioration

**Optimum Life** – The lowest lifecycle costs to provide the required level of service for the duration of time it is required

**Performance** – A defined measurement of how well an asset is able to achieve its intended purpose.

**Planned Maintenance** – Assets repair and component replacement tasks are scheduled as these investments allow the asset to achieve its expected life

**Reactive Maintenance** – Task that are undertaken to restore an asset to operational readiness after an unexpected failure has taken place.

**Risk** – The effect of uncertainty on objectives

**Sustainability** – Meeting the needs of the future by balancing social, economic and environmental outcomes when making decisions today.

**Stewardship** – Those responsible actively ensure that infrastructure and other assets are well managed over time to cost effectively meet service level needs

**Technical Level of Service** – Technical measures of how services are provided by Central Elgin. These are related to how Central Elgin delivers its operations, maintenance and renewal actions.

**Whole-Life Cost (WLC)** – Analysis of an assets 'Acquisition Cost + Ownership Cost + Disposal Cost'. This is critical to understanding the financial impacts that long lived assets will have on the community throughout its life.

# PREAMBLE

The goal of Asset Management is to provide a determined level of service, in the most cost effective manner through the acquisition, operation, maintenance, renewal and disposal of assets. Ideally this will be done to not only meet the needs of the assets current users but also the users for generations to come. If successful, this will provide for intergenerational equity for the provision of municipal services. The purpose of this plan is to answer these fundamental questions:

- “Does the Municipality have sufficient resources to deliver the services that residents required in an appropriate way?”
- “If there is insufficient resources what are the consequences?”
- “What is the risk of failure of a municipal service?”
- “If there is a finite budget, then what are the municipal priorities considering risk, levels of service and cost?”
- “Are there services that we as a municipality are able to do without, or assets that are not needed?”

By implementing a culture of Asset Management within the municipality the end result will be the municipality being able to provide sustainable services over the long term, in a way that meets the expectations of the majority of users, in a way that is affordable.



## COUNCIL/ BOARD MEMBERS

Represent need of community.  
Allocate resources to meet service objectives.  
Ensure financial sustainability.



## SENIOR MANAGEMENT

Set high level priorities for AM development and raise awareness of this function among staff and contractors.  
Support the AM driven budget and LTFP  
Support the actions required in the AM plan to better manage assets and deliver service.



## CORPORATE SERVICES & STAFF

Consolidate and manage asset registry to ensure valuation are accurate.  
Preparation of asset sustainability and financial reports.  
Gather and prepare asset management plans.



## FIELD SERVICE STAFF

Verify location and condition of assets.  
Provide operational and maintenance services for assets.



## EXTERNAL PARTIES

Community residents and businesses.  
Tourists and visitors (occasional users)



*Central Elgin's*

# DETAILED ASSET MANAGEMENT PLAN

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Annually Central Elgin will prepare and adopt detailed asset management plans (DAMP) to demonstrate how it will operate, maintain and renew existing infrastructure assets. These plans provide an explanation of how The Municipality will intend to meet the growth demands for infrastructure and financially plan to ensure these levels of service are sustainable. The DAMP currently has a 10 year horizon however some asset planning will extend beyond that due to the long life and strategic nature of infrastructure assets.

The purpose of this DAMP is to ensure that the public, council, staff and management has sufficient information and understanding of the long term and cumulative consequences of managing public infrastructure over their whole-life. These plans will detail;

- What assets the Municipality owns, its condition and its replacement costs
- How the municipality will operate and maintain these assets
- How, when and what the municipality will replace the assets with
- The risks of asset ownership & mitigation efforts to manage those risks
- The long term & cumulative financial implications of asset ownership
- Opportunities for improvements to the Level of Service (LOS)

To manage the public's assets effectively, it is critical to consider the long term obligations of asset ownership and ensure they are planned for effectively by utilizing fact based decisions. These decisions will be optimized by explicitly considering the interdependent impacts of costs, risk and performance to achieving the desired level of service. By utilizing AM measurements such as lifecycle analysis and whole of life costing it will allow Central Elgin to acknowledge the fact based realities of asset ownership and assist in making fact based decisions. Central Elgin will follow the principles outlined in the Strategic Asset Management Policy and consistently update and inform the assets lifecycle, whole life cost and risks through this plan.

meeting growth  
**DEMANDS**



# INTRODUCTION TO ASSET MANAGEMENT (AM)

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Infrastructure represents a significant social investment within the community which has been built up over decades. While there is always a focus on the new assets required for growth, it must be remembered that Central Elgin's existing asset portfolio still needs to be effectively managed through maintenance and replacement. It is easy to focus on the 1-2% of assets created each year but it is essential to effectively manage the other 98%.

Asset management enables Central Elgin to achieve infrastructure objectives by deliver agreed upon affordable levels of service at the appropriate lifecycle cost. Annually Central Elgin will prepare asset class specific detailed asset management plans to report to the customers on service levels, financial performance and to fulfill stewardship accountabilities.

AM focuses on managing Central Elgin's assets over their entire lifecycle in the most effective manner possible. This requires knowing about current assets performance, considering future demand and optimizing value. We will achieve this by balancing the assets costs, risk, and performance for present and future generations. Central Elgin is committed to continuously improving our AM knowledge and developing the best-practice AM plans.

## 1. WHY DO WE OWN ASSETS?

All municipalities rely upon infrastructure to provide key services to customers and support our modern society and economy. Quality infrastructure is the cornerstone of public health, economic prosperity and a sustainable society. These infrastructure related services are often taken for granted until either a service fails or is no longer available. Infrastructure services represent a significant social investment and need to be managed effectively to ensure the maximum benefits is achieved from these investments. As municipalities become more formalized in their Asset Management, the issue of "What is the value of this asset?", will become increasingly important. By value we are not talking about the monetary cost of the asset but rather the purpose that this asset provides to the public and residents.

## 2. WHAT DO WE OWN?

Central Elgin will report on all if its assets through its Detailed Asset Management Plans. These asset specific plans will detail what investments have been made previously and provide an understanding of how they are managed over their whole life.

The following Core Asset class plans will be adopted and reported on by July 1, 2021.

- Bridges and Culverts
- Roads
- Sanitary
- Water
- Waste Water

Further DAMP's for all other infrastructure will be completed by July 1, 2024.

### 3. WHERE ARE OUR ASSETS?

Central Elgin has a significant amount of assets to maintain and all of these assist with the delivery of its services. Each DAMP will document these locations and use maps when appropriate.

### 4. ASSET MANAGEMENT APPROACH DIRECTION FROM THE STRATEGIC ASSET MANAGEMENT POLICY

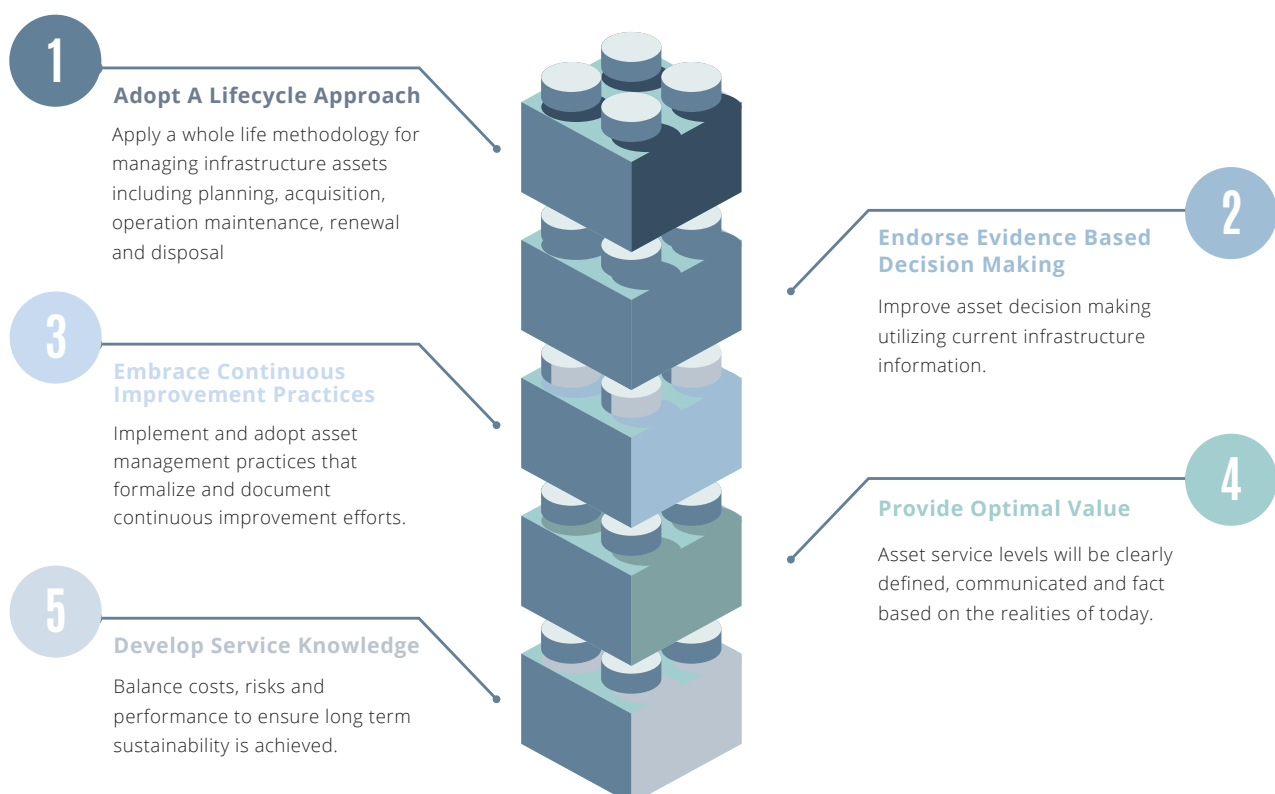
Central Elgin will continuously develop its DAMP's to illustrate how it will plan, design, acquire, maintain, operate and dispose of its assets. We must consider both present and all future residents, ensuring we make sustainable evidence based decisions to ensure Central Elgin will:

- Protect the public safety of our community and maintain a defined transparent LOS
- Utilize asset life cycle information and evaluate implications and obligations of asset ownership
- Develop cost effective management strategies for long term planning
- Explicitly manage risks associated with asset ownership
- Continuously monitor asset performance and improve management practices
- Use physical resources sustainably and ensure we consider the impacts to natural environment

The executive sponsor of the DAMP is the Director of Asset Management and Development Services, with the plan being endorsed by the Asset Management Working Group and approved annually by our Municipal Council.

#### 4.1 CORE ASSET MANAGEMENT PRINCIPALS

Central Elgin has adopted the following principles found within our SAMP to ensure alignment within our Municipality. They are as follows:





## 4.2 ASSET MANAGEMENT OBJECTIVES

Simply put, Objectives are goals. One benefit of viewing assets through an AM lens, is to ensure we are managing our assets as effectively and sustainably as possible by setting and meeting our planned goals. Central Elgin owns and operates a vast, complex and expensive network of assets. These assets provide services and benefits to the community as a whole and to the economy. Asset ownership however comes with a tremendous amount of responsibility to ensure assets are in serviceable condition and can be renewed as needed at an affordable cost.

Asset management's main objective is to ensure proper stewardship of municipally owned assets. Its intent is to effectively manage an assets whole life costs by balancing those investment needs with the inherent risks of ownership along with the desired performance of the asset. As stewards of these assets, it is Central Elgin's social and fiduciary obligation to set clear objectives for our assets. These stewardship measures will be reported through the Detailed Asset Management Plans and will detail and support how the municipality will ensure the sustainable delivery of the assets that support services.

## 5. STRATEGIC PERSPECTIVE & EXPECTATIONS

We intend to ensure assets are safe, reliable and considered in adequate or acceptable condition. Central Elgin will maximize the use of existing assets and only build new assets at the right time, in the right places and for the right reasons. In the future, the acquisition or construction of new assets may be based more on need rather than desire given the high costs and risk of asset ownership. This is critical to ensuring that the infrastructure is future friendly and sustainable. Viewing assets by the Whole Life Costs enable decision makers to ensure an informed choice is made. We will continuously develop and improve our DAMP's to ensure we will be responsive to population growth, customer expectations while considering financial sustainability and risk.

## 6. UNDERSTANDING THE CUSTOMER

### 6.1 RESILIENCY

The need to understand and develop more resilient infrastructure has become vital in these increasingly uncertain times. Adapting for climate change and meeting the demand of social outcomes while balancing growth will be imperative going forward. It will require careful planning to ensure that investments are optimized and sustainable. The concept of resiliency with infrastructure relates to how assets can:

- Withstand disruptions
- Act effectively in a crisis
- Adapt to changing conditions such as climate change and future growth demands
- Absorb disturbances

### 6.2 GROWTH

Population growth has a direct impact on Central Elgin's ability to operate, maintain and renew assets. Approximately 14,000 people call Central Elgin home and over the next ten years, it is anticipated for that number to grow to 15,700. The impacts of growth will be analyzed annually to ensure Central Elgin's investments in infrastructure are fact based and optimized. Increased population growth often leads to increased asset inventory to accommodate the growth as well as increased use. These growth related assets will require Central Elgin to operate, maintain and plan for their likely replacement.

## 6.3 SUSTAINABLE OPERATIONS

Sustainability can be defined as ‘the responsibility for taking good care of resources and assets’. Municipalities have a social and fiduciary obligation to consider sustainability in everything we do. Customers need to be confident that service levels can be maintained not only in the current year but ongoing into the future as well. Central Elgin is committed to optimizing municipal assets and resources over their whole life. Central Elgin will explore initiatives to manage these assets and help defer the need to build new infrastructure thereby managing costs.

To ensure sustainability, Central Elgin will strive to:

- Continually improve our information database to support evidence based decisions
- Consider viable options by evaluating lifecycle costs that emphasize efficiencies vs. unsustainable short term solutions
- Recognize and plan for the implications of climate change

## 6.4 CLIMATE CHANGE

Integrating environmental considerations into everything we do is key to our stewardship role and to being a positive example to our community. Climate change is a reality and the frequency of extreme weather impacts will increase over time. It is anticipated that shifts in climate will significantly increase impacts on assets and this eventuality should be planned for. This will require further education, engagement and it will be necessary to evaluate the risk and plan accordingly.

Understanding and developing a more resilient infrastructure due to climate change has become imperative for all levels of government including Central Elgin. Considering the contributing impacts that infrastructure has on climate and the impacts that climate change has on infrastructure requires Central Elgin to consider climate in all asset decision. Each service Central Elgin offers is linked to and is directly dependent upon the health of the environment. Actively considering asset impacts on our natural environment will allow Central Elgin to make informed choices that emphasize sustainability and mitigate impacts to our climate.

## 7 OPERATIONS

Operational activities are actions taken to ensure our assets are consistently considered in good working order. Daily, weekly, seasonal and yearly activities are undertaken by staff to ensure Central Elgin’s assets perform within acceptable parameters and to ensure we actively monitor the condition of the asset. These are the current major operational activities associated with these assets. The DAMP’ will outline the asset specific activities required to achieve the desired performance and the costs and efforts required to operate the asset.



## 8. MAINTENANCE PLANNING

Maintenance is referred to as the 'ongoing management of deterioration'. These maintenance activities are intended to keep an asset as near to its original condition as practically possible. Maintenance does not increase service potential for assets but it slows down deterioration and delays major rehabilitations or replacements. The purpose of planning maintenance is to deliver a sustainable, cost-effective and reliable performance from our assets. Planned maintenance reduces the occurrence of reactive maintenance which tends to be inexorably linked to increased exposure to risk and higher financial costs. Regular planned maintenance will ensure our assets will achieve their intended life at the cost that is affordable.

Central Elgin will plan its maintenance activities to ensure assets are capable of performing at their expected levels of service and are categorized as follows:

### GENERAL MAINTENANCE

Day to day planned and minor reactive maintenance that is required to an asset operational and allow the asset to perform to the end of its service life.

### MAJOR MAINTENANCE

Major scheduled or reactive asset maintenance ensures that assets last as long as they can, or are performed in response to functional failures.

Central Elgin will begin prioritizing our maintenance schedules to ensure that assets are kept in the proper condition and make certain that they are safe for use and effective. We will report on the effort and costs required to deliver the maintenance program for each asset annually within the DAMP.

## 8.1 CURRENT CONDITION ASSESSMENT PRACTICES

Condition is a pro-active indicator of Stewardship and is an effective measure of the asset's health while ensuring it performs as expected in the future. Every asset's condition degrades due to usage or external factors such as weather. Central Elgin must time its operations, maintenance and renewal interventions to ensure our assets maintain the desired condition necessary to deliver its services effectively. An asset with a high condition may indicate that only minor operational or maintenance interventions are required. An asset with an extremely low condition rating would likely require a higher cost replacement or renewal to make it functional again.

It is generally accepted that customers expect our assets to be safe and reliable and functional. To ensure our assets condition are monitored on a regular bases Central Elgin will detail its condition practices in each asset specific plan. Due to the significant fiscal responsibilities and risks undertaken with asset ownership there are often provincial or federal mandatory requirements related to inspection frequency and context. We proactively monitor these assets in an effort to provide us with indicators as to which asset may require either operational/maintenance intervention as well as to indicate which assets are requiring refurbishment or renewal.

These condition assessments communicate the:

- Assets overall health – Physical and Functional
- The asset's ability to preform its function
- Short term mandatory maintenance requirements.
- Timing recommendations for major overhauls or replacements.

Whether based on age, condition, level of service or simply the frequency of repair, a performance measure is critical to actively managing the preservation of these assets. By understanding the direct impact investment has on performance, council and staff are able to establish funding priorities and set targets that are both sustainable and achievable. These will be reported annually within each asset classes DAMP.

## 9. RISK MANAGEMENT PLANNING

Risk is the effect of uncertainty on Central Elgin's objectives. Risk management is an essential component of effectively managing infrastructure assets. Central Elgin will manage risk and opportunities through a formal risk analysis process which aligns with our Strategic Asset Management Policy. Through continuous application and expansion of this risk process we will ensure that we explicitly consider the risks to our objectives. Risks are identified, analyzed, prioritized for treatment, and then mitigated to ensure we address them proactively versus reactively.

Risk itself is a dynamic, iterative and responsive to change. To manage risk effectively, we must continuously monitor and consider risk to ensure the appropriate levels of mitigation are applied. By continuously monitoring risks we;

- Ensure evaluation of risk is part of decision making processes
- Is tailored to our community needs and includes human, cultural and social factors
- Ensure transparency in our decision making process
- Explicitly address the uncertainty that is incumbent on asset owners

Central Elgin considers various types of risk with respect to our assets and services. These include Human Risk, Environmental, Climate, Financial, Legal, Reputational, Social, Cultural and legislative. Central Elgin will explicitly document its risk consideration within the DAMP's to demonstrate that we actively consider risk annually.

Central Elgin will establish its risk tolerance through various risk measurements including; impact, probability, severity, failure frequency and probable consequences. We will establish scales to evaluate the probability and consequences of risk to inform good stewardship decisions and optimize our choices by either reducing, removing or mitigating risk.



### 9.1 RISK MITIGATION

Effective risk mitigation does not guarantee the elimination of all potential for adverse consequences; however planning for risk greatly reduces Central Elgin's exposure to it. Risk mitigation is delivered through the application of risk control methods including avoidance, transference, operational initiatives and/or engineered solutions. Whenever possible, engineered solutions are put in place to mitigate risks. This is particularly important in areas of Central Elgin that has ageing infrastructure and increased demand.



When risk cannot be avoided or is deemed tolerable, Central Elgin will carry out operational initiatives to ensure the continued monitoring of risks including:

- Condition Assessments
- Annual DAMP Report
- Continuation of regular staff inspections

## 10. ASSET RENEWAL STRATEGY

As infrastructure is used it is normal to see a decline in its performance and it is known that inevitably an asset may fail. Asset failure will create service interruptions and may pose a risk to public health and safety. Central Elgin is developing its asset renewal program based on an Evidence Based Decision Model. Asset renewal decisions are to be based on the priority listing developed by evaluating the assets condition, criticality and expected return. The expected return measures the cost required to return an asset to the expected condition.

### 10.1 CRITICAL ASSETS

Our critical assets are those which cannot be allowed to fail because the consequences of failure are too high. Criteria to identify which assets are critical include:

- Driver/Human Risk
- Number, type and duration of customers affected
- Environmental consequence of failure
- Regulatory and Legislative Compliance
- Complexity of repair or closure duration

We have adopted the following approach to the renewal of assets:

- Renewal programs are developed for critical assets
- Non-Critical assets are replaced on failure

These assets requiring renewal will be identified within each asset specific DAMP and updated annually.

## 11. LEVEL OF SERVICE

Community wants and desires can be limitless. All infrastructure costs public money to own, operate and maintain and Central Elgin recognizes that funds are not limitless. The needs must be tied to what the customers and the community are prepared to pay for those services. Annually Central Elgin will engage with its customers through a LOS survey to ensure the community has a better understanding of the condition of assets. Conversely, the LOS survey will also allow the municipality to better understand the public's opinion on the services provided and their appetite to increased costs to provide a higher level of service or that they prefer to reduce taxes in exchange for a decreased level of service. This process will allow Central Elgin to make better informed choices.

The annual survey will measure customer LOS which focuses on how well the public receives our services. The technical LOS measures what Central Elgin does to deliver those services and will be reported annually with each specific DAMP and will mature over time.

## 12. INFORMATION IS AN ASSET

Asset Management, at its very core, is an evidence based discipline that is driven by information. Central Elgin requires good information to ensure that good fact based decisions can be made. Central Elgin will strive to collect and maintain the required asset information in a robust information database and review it regularly as part of the DAMP process to ensure it is continually improved. We will add and remove asset from our registry in a timely manner and promote data confidence by ensuring information is accurate, reliable and reasonable. Central Elgin will work to improve our data quality to facilitate the transition from opinion based choices to fact supported decisions

## 13. FINANCIAL PROJECTIONS & OBLIGATIONS

Good stewardship of municipal assets requires Central Elgin to plan accordingly for the long term financial impacts of asset ownership. This includes considering all of the obligations of an assets construction, operation, maintenance (reactive and planned) and ultimately the disposal and replacement plans. These impacts can be significant over the whole life of the assets and this planning will ensure we are considering the long term responsibilities of an assets whole life. Asset management will focus on transitioning from an annual budgeting to a Long Term Financial Plan (LTFP) with a 10 year horizon.

Planning over a ten year horizon is an essential stewardship measure that will allow Central Elgin to;

1. Make effective and sustainable decisions
2. Improve accountability
3. Improve financial efficiency
4. Effectively manage risk
5. Enhance customer service

Each asset class will report through its DAMP the financial resources required to operate, maintain and renew the assets over a horizon of ten years. We will identify any renewal plans and the financial plan to fund the renewals. The DAMP will also communicate the current funding gap along with a strategy to achieve a sustainable funding level going forward.

