

# Asset Management Governance within the Context of Climate Change

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Dharmen Dhaliah  
February 11&12, 2020



# Introduction

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- **Senior Manager Climate Change & Asset Management, Town of Halton Hills**
- **Board Member of AMONTario**
- **Published Author**
- **Speaker**

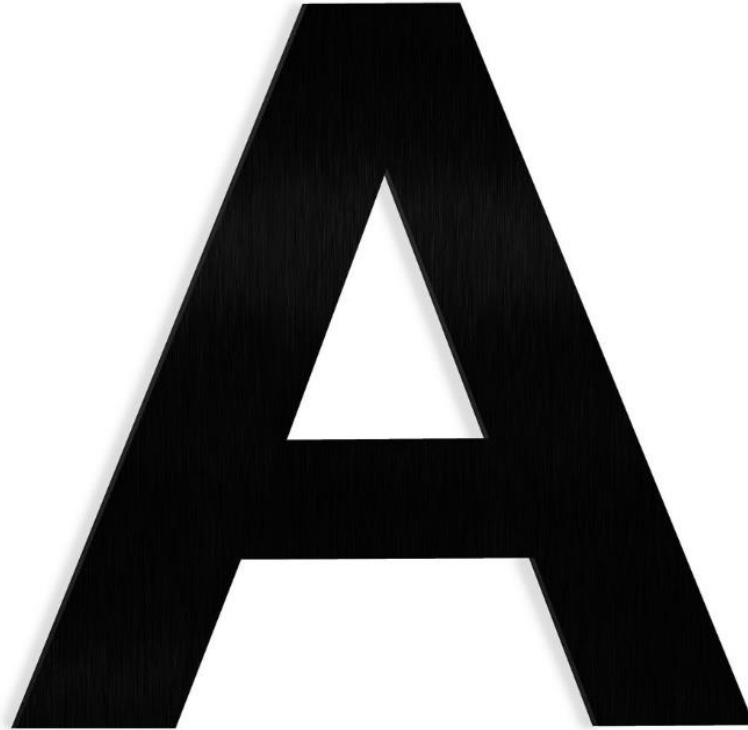
# Town of Halton Hills

- The Town of Halton Hills, with a population of approximately 62,000
  - Two urban centers: Georgetown and Acton
  - Three hamlets – Glen Williams, Stewarttown and Norval – and several smaller settlements.
- ❖ Long been recognized for its natural beauty, active agricultural community, high quality of life and proximity to major centers.



# Let's Get Started

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# M



Corporate Asset  
Management

**AMONTario**  
ASSET MANAGEMENT ONTARIO

Management

**Asset Management**

Asset

Assessment

**Governance**

Maturity

**within the Context of**

**Climate Change**

Adaptation

Mitigation



Corporate Asset  
Management

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ASSET MANAGEMENT ONTARIO







**L**eadership

**A**lignment

**V**alue

**A**ssurance



Corporate Asset  
Management

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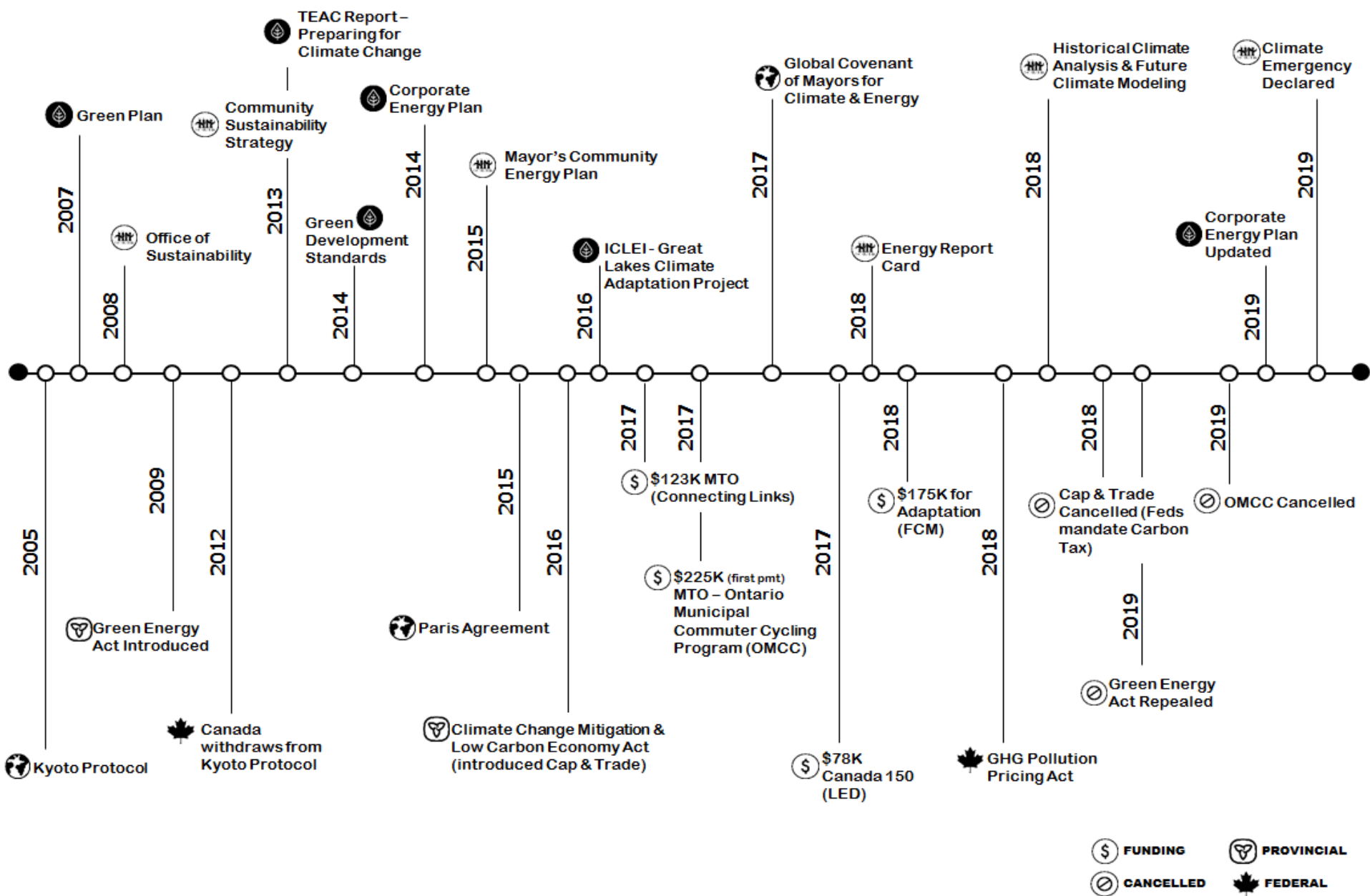
# Town of Halton Hills Corporate Asset Management Policy

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On June 25, 2018 Council endorsed the Town of Halton Hills Corporate Asset Management Policy.

The Policy outlines the Town's commitment and mandated requirements for asset management to meet the strategic objectives and priorities.



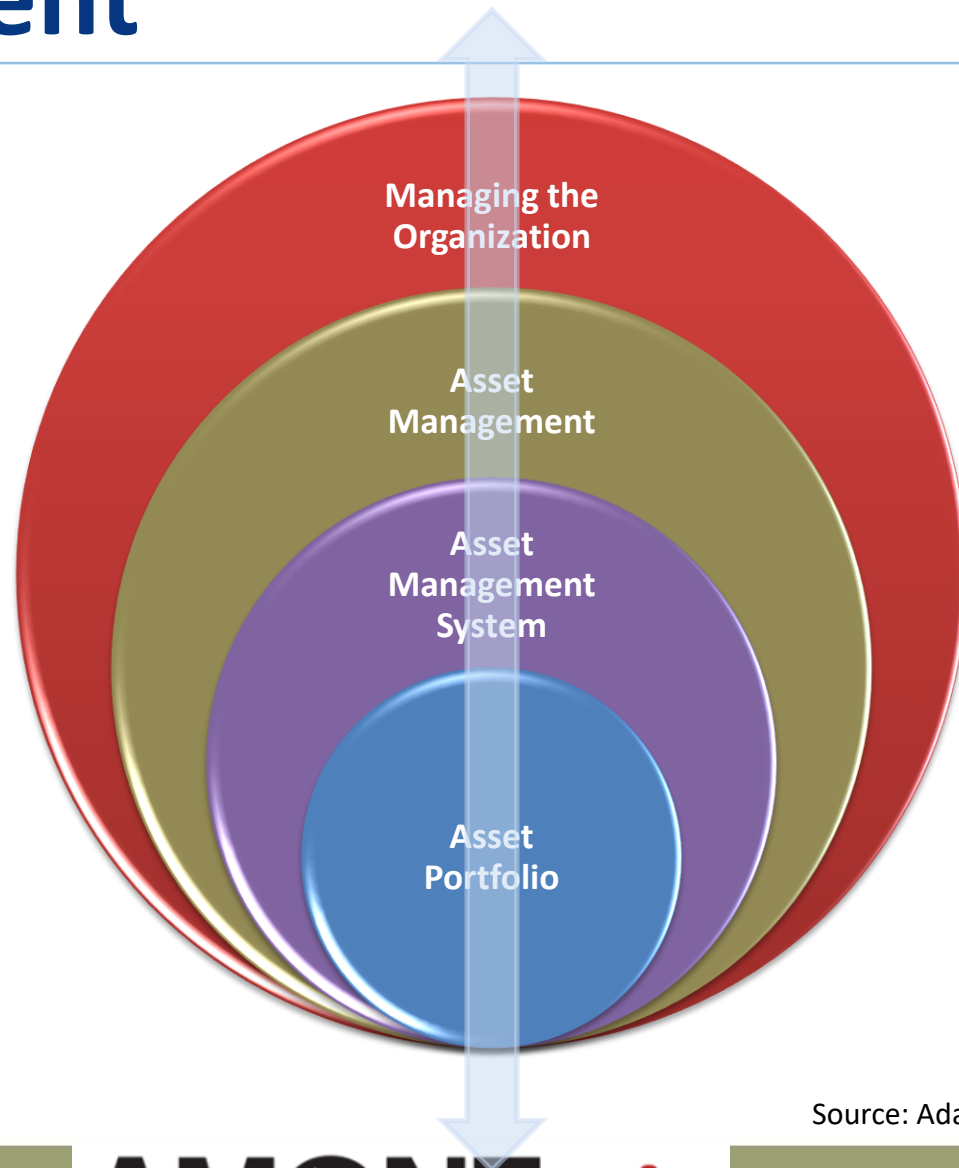
# Town of Halton Hills - Climate Change Emergency, May 6 2019



THEREFORE BE IT RESOLVED that The Town of Halton Hills declare a Climate Emergency in the knowledge that this is an emergency with no foreseeable conclusion which will require permanent robust changes in how the Corporation conducts its business and a resetting of goals with respect to Engineering, Planning, Building, Recreation, Parks Libraries, Fire and Transportation Services;

# Alignment

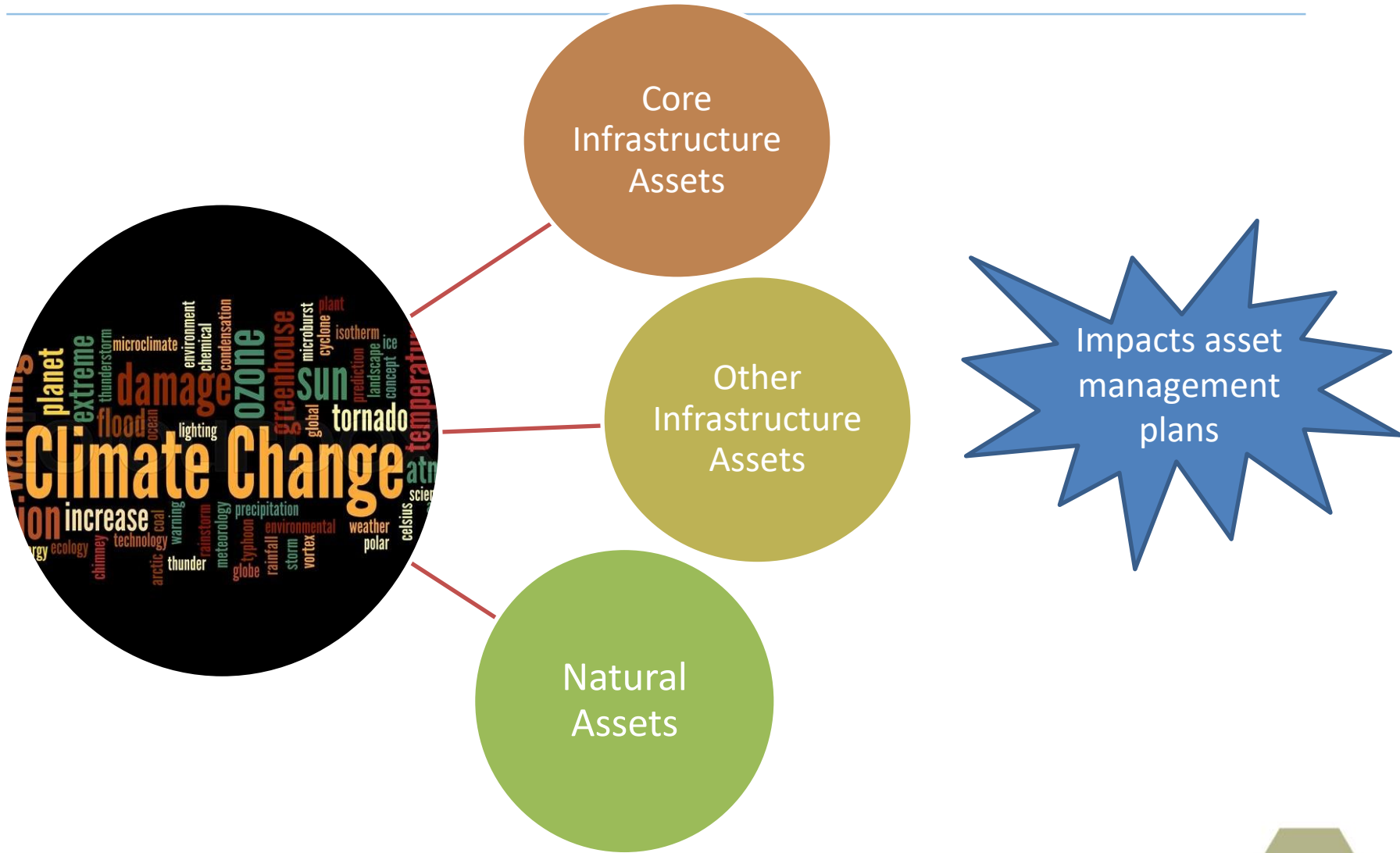
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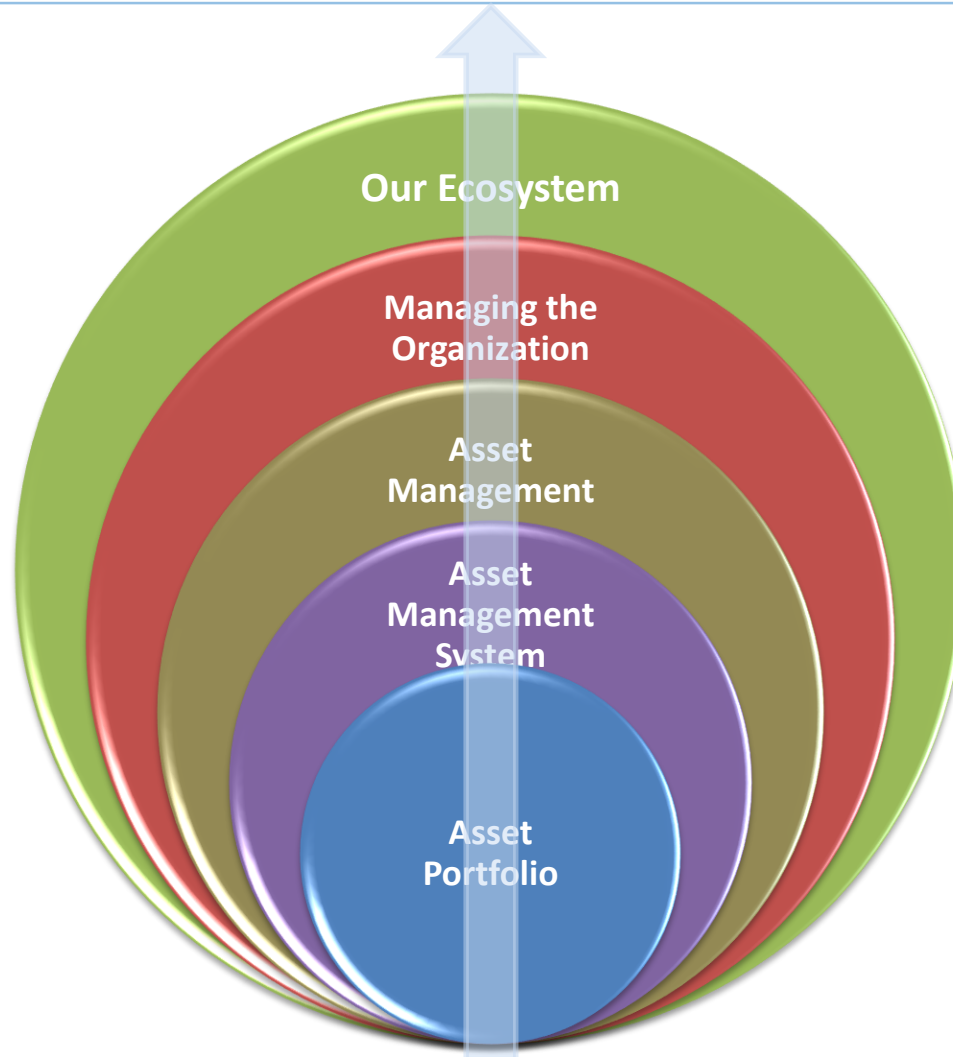
Source: Adapted from ISO 55000



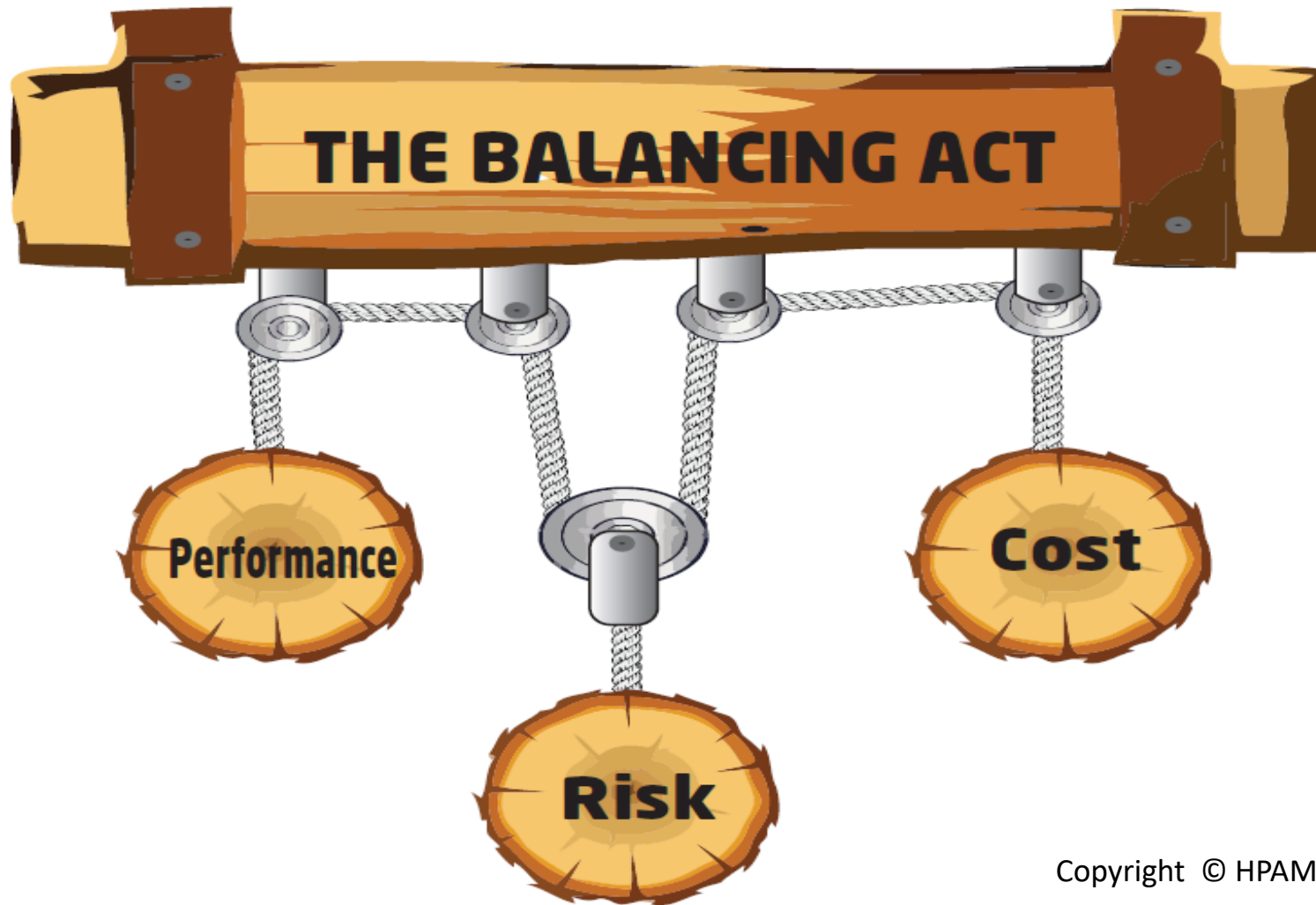
# Climate Change and Infrastructure Assets



# Alignment AM System & Ecosystem

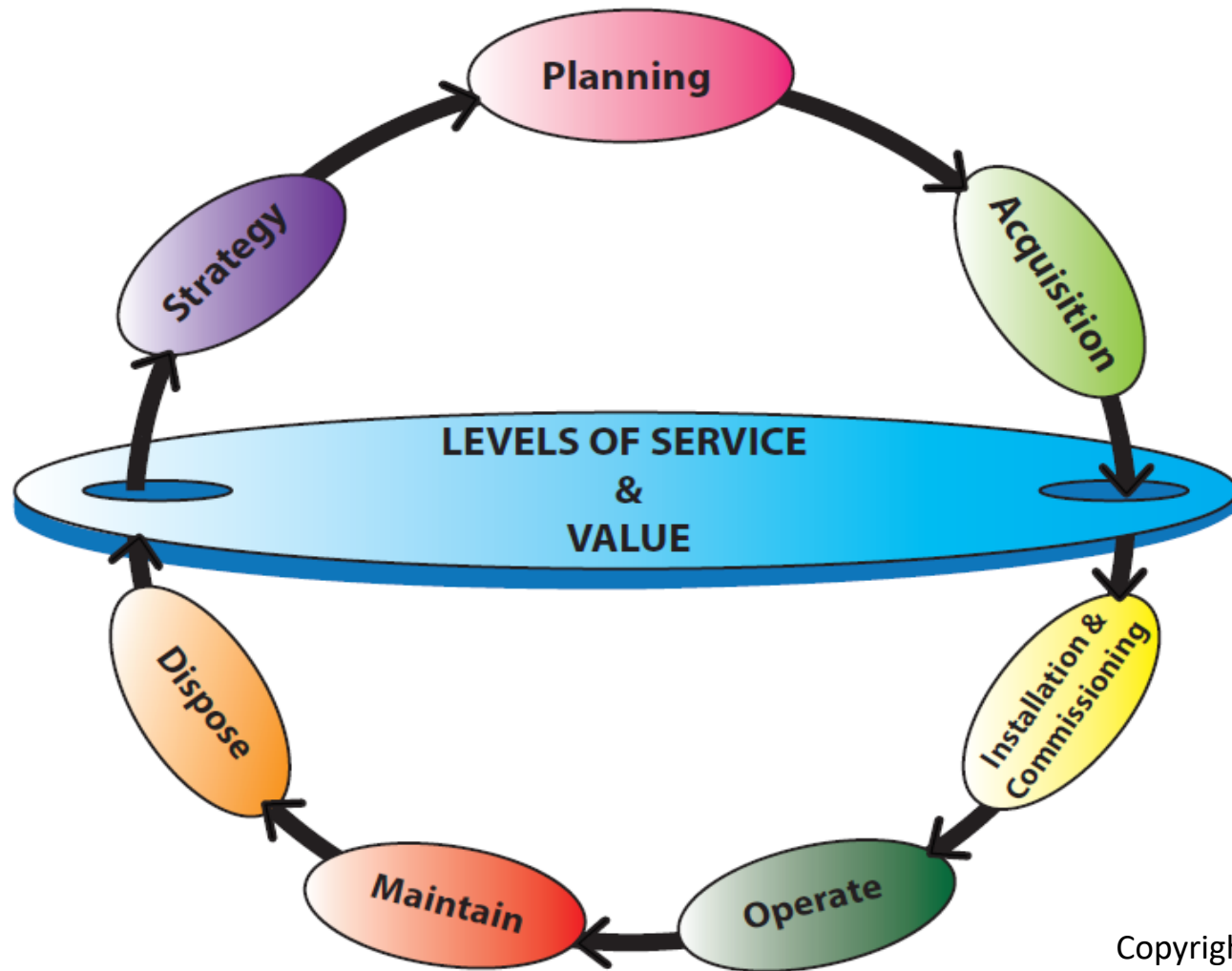


# The Balancing Act Approach



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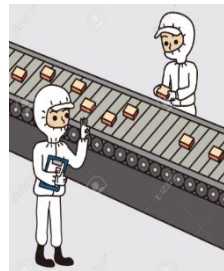
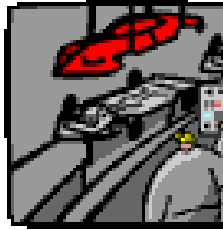
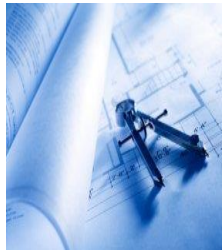
# The Lifecycle Approach



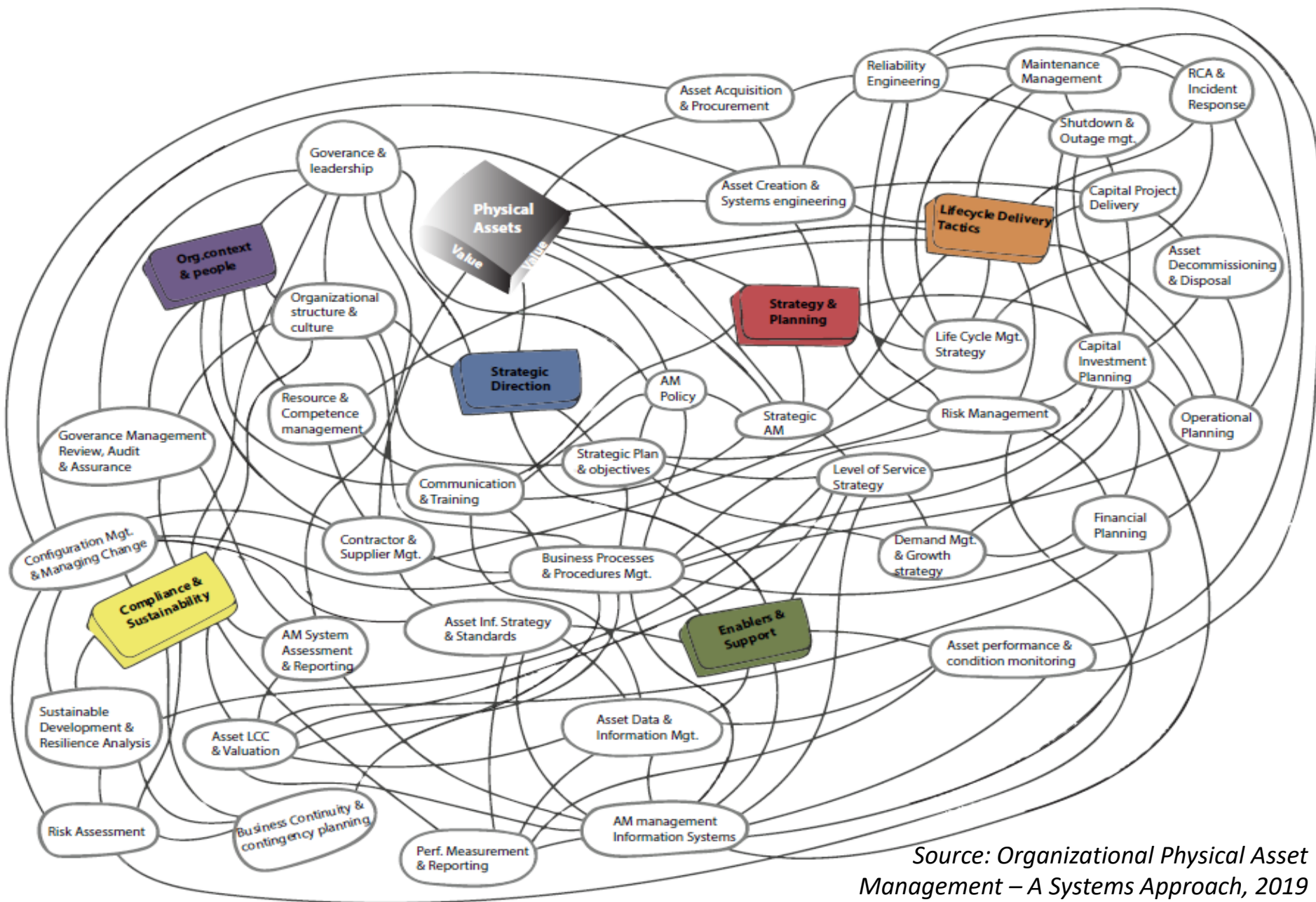
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# Organizational Approach



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Source: *Organizational Physical Asset Management – A Systems Approach, 2019*



Corporate Asset  
Management

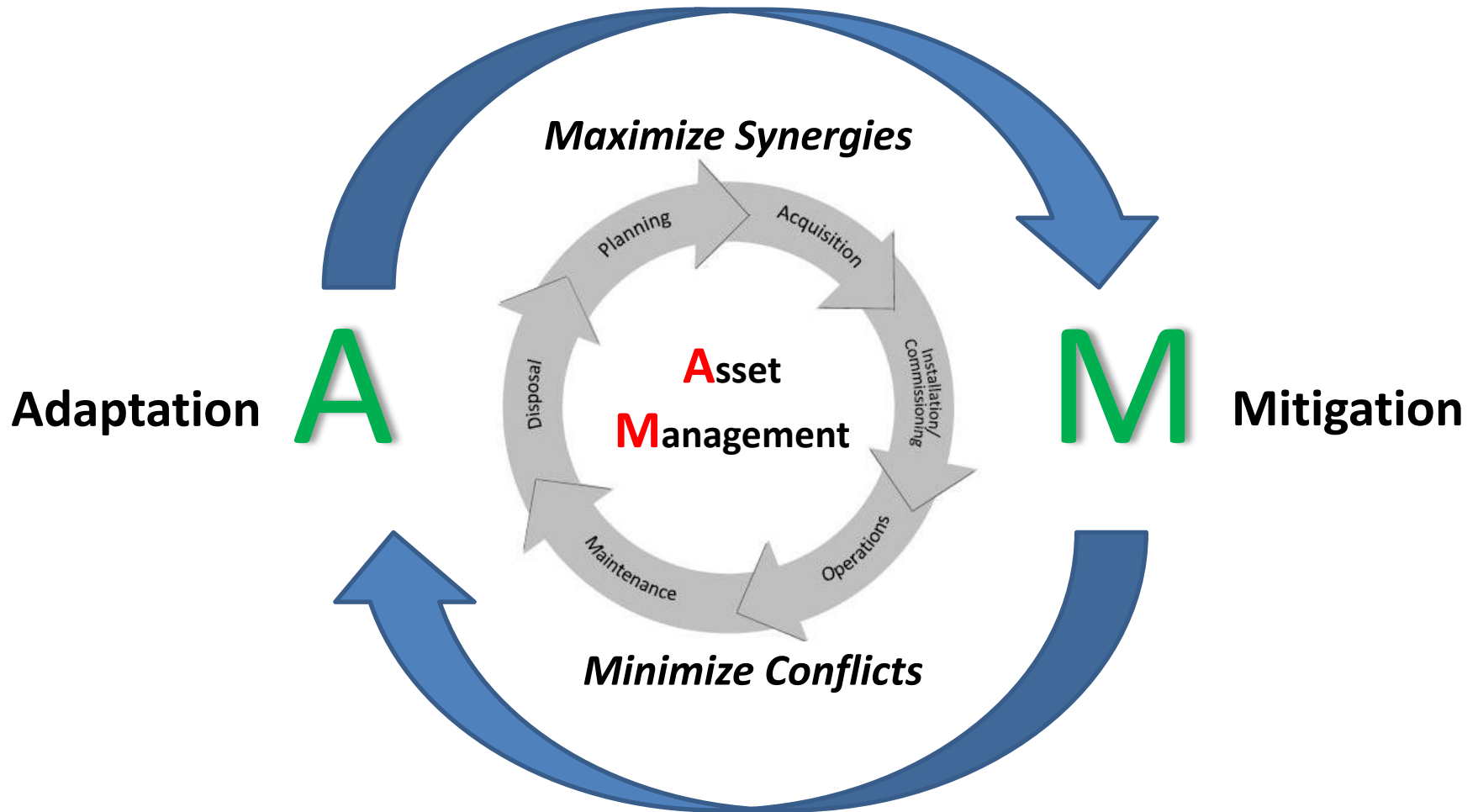
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# Value



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# An Integrated **A+M** Approach





# Asset Lifecycle Considerations

- Planning (more frequent interventions/long-term solutions)
- Designing (more resilient, capacity)
- Procuring (standards, specifications)
- Building/Constructing (building codes, materials)
- Operations/Levels of service (performance standards)
- Maintenance (type/frequency)
- Lifecycle costs (increase or decrease)
- Disposal (environmentally friendly)

# Climate Lens

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# Collaboration

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# CAM Program: Asset Management Planning for the Present, Future and Beyond!

The Town is located on the outer edge of the rapidly growing Greater Toronto Area (GTA), much of the municipality remains rural in character, with significant portions protected by the provincial Greenbelt Plan as well as the Niagara Escarpment Plan. The Town of Halton Hills, with a population of approx. 60,000, is made up of several interconnected smaller towns, villages and rural settlements with a distinctive and enviable identity that comes from the beauty and tranquility of the rural setting, rolling hills, rivers and valleys. It consists of two urban centers, Georgetown and Acton, the Halton Hills Premier Gateway employment area, three hamlets – Glen Williams, Stewarttown and Norval – and several smaller settlements.

Halton Hills is one of four municipalities that make up the larger Halton Region (Halton Hills, Milton, Oakville, and Burlington). The Town has long been recognized for its natural beauty, active agricultural community, high quality of life and proximity to major centers. Halton Hills is a community where we enjoy safe family living, scenic beauty and active community life. The Town is ranked as one of the top small communities in Canada by a national magazine.

In light of its geographic location, Halton Hills faces significant growth pressures. By 2031, the Town's population is anticipated to reach 94,000 residents. Besides working on a Corporate Asset Management Plan, the Town has some key strategic priorities ongoing, namely Vision Georgetown, the Long Range Financial Plan, Transit Strategy, Climate Change Adaptation Plan, Halton Hills Premier Gateway, and some major capital projects among others.



## Climate Change Adaptation Plan

The Town of Halton Hills has and continues to experience the effects of a changing local climate. Extreme weather events, such as the 2013 ice storm and the summer of 2014 very low precipitation levels and several extremely hot days severely affected the Town.



While it is still crucially important for governments of all levels to address the root cause of climate change by reducing greenhouse gas (GHG) emissions (referred to as mitigation), it has also become clear that governments also need to plan for and be prepared to adapt to a changing climate. Recognizing these facts, Town Council identified the development of a local Climate Change Adaptation Plan as a priority project for Town of Halton Hills as part of the 2014-2018 Council Strategic planning process. Council approved the necessary funding to complete a Climate Change Adaptation Plan in the 2016 capital budget process. The project is also supported by two goals outlined in Vision Halton Hills – The Town's Integrated Community Sustainability Strategy, and will fulfill four actions listed in the Corporate Sustainability Action Plan.

## AM Information System: Alignment with Town's Corporate Technology Strategy



## Capital Budget Process

For the past two budget cycles the Town has been making improvement in its capital budgeting process to move from a budget-driven framework to a service-driven approach. This year introduction of project needs assessment process to analyze needs and facilitate the prioritization process.



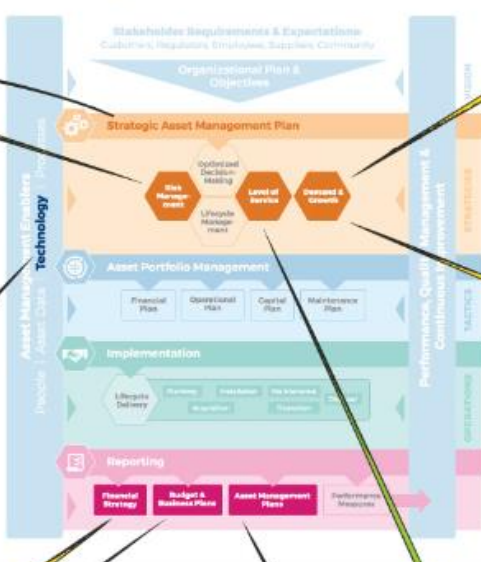
Corporate Project  
CAM Project

## AM Policy and Strategy

• Corporate Asset Management Policy in draft stage  
• Due for Council review July 2018



## Corporate Asset Management Framework

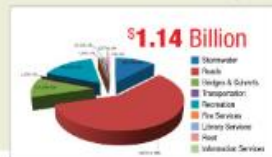


## Long Range Financial Planning



The Town of Halton Hills Long Range Financial Plan drives the Town's long-term financial objectives, policies, targets and measures. The 2018 update to the Plan will demonstrate the overall current and future financial position of the Town and tools will be developed to explore the financial impact of changes and achieve sound financial management.

## State of Infrastructure Report



1. Update and validate Asset Inventory data for different asset groups;
2. Compilation of Condition Assessment data for all assets/asset groups;
3. Development of a Long-term Financial model based on predictive lifecycle models for all assets;
4. Include Asset Inventory, Condition Assessment and Long-term Financial analysis in a State of Infrastructure Report (SOIR)

## Vision Georgetown:

Home to 19,000 residents and provide 1,700 new jobs starting in 2021.



The Vision Georgetown community is an inspiring new urban community; distinctive in the way it looks and functions, fostering healthy lifestyles, neighbourliness, economic prosperity, and local pride. It is a resilient, sustainable, complete, and compact community, with a thriving natural heritage system. It feels like a small Town and is physically connected to the broader community of Georgetown and the Town of Halton Hills. It honours the rich heritage of the Town, emphasizes people, and provides choices for day-to-day living. Overall, the Vision Georgetown community is an exceptional, forward thinking, and innovative model for new community development.

## Transit Strategy

Expand on the existing Halton Hills transit service to provide an affordable and accessible system that is tailored to needs and opportunities in Halton Hills. The transit system will service the needs of residents, businesses and visitors within the Halton Hills urban, rural and travel communities, and provide links to surrounding municipalities by 2031. The transit system will continue to evolve to accommodate planned growth within the Town by 2031.



Corporate Asset Management Program

## Level of Service:

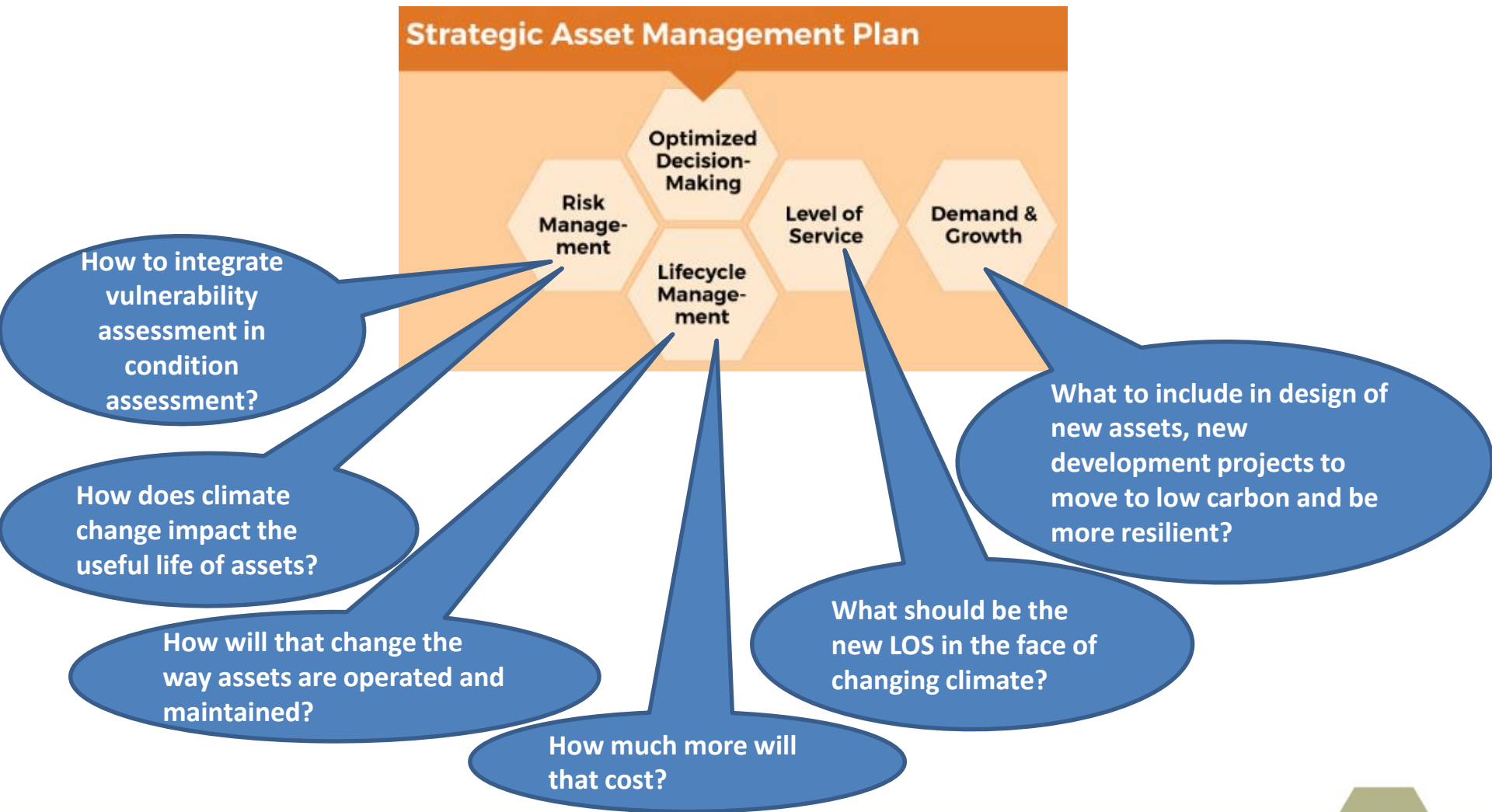
Over ten LOS analysis workshops carried out with different departments. Questions asked:

- What services are currently provided?
- What services do customers expect?
- What assets are involved in providing each service?
- What level of service are we providing now?
- At what cost?
- What level of service expected in the future?





# Opportunities



# Asset Replacement

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- Town Hall Heat Pumps are in poor condition;
- Identified for replacement in AM Plan;
- \$400K to replace heat pumps in 2020;
- Replace like-for-like?



# Achieving Net Zero Target

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- Town Hall Low Carbon Design Brief project;
- Develop course of action and cost estimates to achieve net-zero target by 2030;
- Revise AM Plan and Capital Plan to reflect;



# Natural Assets Framework

Rivers

Wetlands

Forests

Meadows

Open Green Spaces

GIS Layer Mapping

## Tree Canopy

**Private Tree Management**  
-GIS

**Urban Forestry (Public Works)**  
-Inventory

**Agriculture and Rural Land**

**Parks and Open Space**

**Woodland**

**Naturalized Stormwater Pond**

- Tree Canopy
- Bylaws
- Stormwater Management
- Health and wellness

- Tree Canopy
- Beautification
- Stormwater Management
- Tree Maintenance

- Stormwater Management
- Ecosystem
- Habitat
- Farming practices
- Soil
- Health and wellness

- Tree Canopy
- Ecosystem
- Habitat
- Stormwater Management
- Health and Wellness

- Tree Canopy
- Habitat
- Quality of air
- Ecosystem
- Health and wellness

- Stormwater Management
- Ecosystem
- Health

Ongoing

### Measures

- Number of trees planted
- % Tree Canopy
- Health condition of the trees
- Carbon Sequestration
- Heat image measurement
- Value/cost of the trees
- Parks and public spaces are designed for hotter temperatures

### Actions

- Private – Privately-owned Tree Management Strategy
- Urban/Rural – Community Forest Strategic Mgt. Plan
- Sustainable Neighbourhood Action Plan
- Natural Assets and Inventory Project
- Tree Planting
- Climate Change Adaptation Plan
- Parks and Open Spaces - ongoing

# Integrated Planning

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- Compile the Inventory of Natural Assets
- Understand & evaluate the Services Natural Assets provide
- Collaborate with Planning, Engineering and Finance for an integrated planning process
- Leverage NA Services in the decision-making process, e.g. encourage LID practices, passive cooling designs, review land-use planning approach, etc.



# TOHH Governance Structure



# Integrating Climate Change & Asset Management

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- Town of Halton Hills recognizes that asset management and climate change are corporate priorities with parallel process.
- First few municipalities in Ontario to integrate role of climate change and asset management at a senior level reporting to CAO.
- Governance change ensures that common decision framework is applied to both climate change measures as well asset/infrastructure stewardship.

# Key Takeaways

## A SYSTEMS APPROACH

**“Everyone doing his best is not the answer”**

W. Edwards Deming

**“The truth is in the whole”**

G.W.F Hegel

**“This is not a moment, it is a movement”**

Unknown

# Thank You

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