# Water Asset Management Plan





# **Presentation Objectives**

- Continuing our discussions on asset management
- State of the City's water assets and service levels
- A snapshot of current and future funding challenges
- Comply with Ontario Regulation 588/17



# Refresher on Asset Management

- The City of Barrie owns and manages about \$5 billion worth of assets.
- These assets allow the City to deliver services.
- Asset Management is a pro-active approach that considers both immediate and long-term asset needs; it helps us make informed budgeting decisions on how to deliver services in a way that:
  - minimizes risk;
  - is sustainable; and
  - makes the most financial sense.



# **Asset Management at the City**

- The Corporate Asset Management team works with departments across the City, all of which are engaged in some form of asset management.
- Minimize total costs of acquiring, operating, maintaining, and renewing assets.
  - Within an environment of limited resources.
  - While delivering the service levels Barrie residents and visitors desire and regulators require.
  - At an acceptable level of risk to the organization.



The City's vision for asset management planning is to effectively manage the City's capital assets to ensure community sustainability and a high quality of life. The ultimate goal of asset management is to ensure the City's financial sustainability by making informed investment decisions that deliver City services at the desired level while minimizing costs and maintaining an acceptable level of risk.

City of Barrie's Strategic Asset Management Policy, 2019



# Water Assets: What do we own and what is it worth?

Replacement **Asset Type** Value (millions)

# **Essential for Life**

The City owns water assets to provide a safe and highquality water supply to support a healthy community and provide a reliable water supply for fire protection.

**Total** 

**Surface Water Treatment Plant** 

# Water Assets

The City's water assets include the surface water treatment plant, wells, storage towers and reservoirs, pumping stations, water mains, valves, hydrants, and meters.

Wells

**Water Mains** 

**Booster Pumping Stations** 

# For Today and Tomorrow

Maintaining over \$1.3B in existing water assets, while also making improvements and adding new assets to accommodate growth and intensification, will be the key challenges in the coming years.

**Underground Reservoirs** 

**Water Towers** 

Appurtenances - Incl. Valves, Chambers, Hydrants, Meters, Etc.

\$251

\$18

\$30

\$1,305

\$269

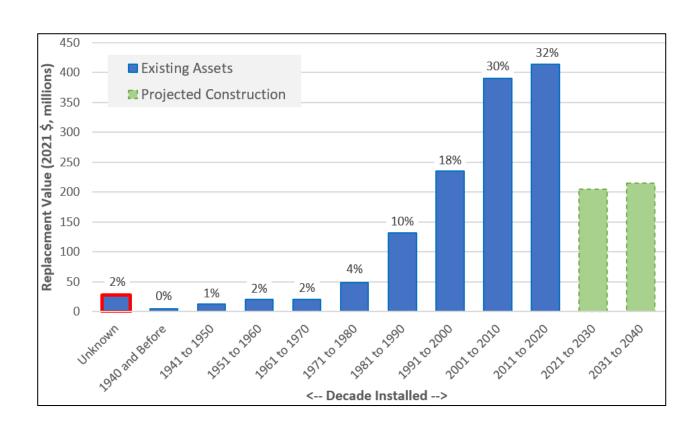
\$28

\$668

\$41



## How old are our water assets?



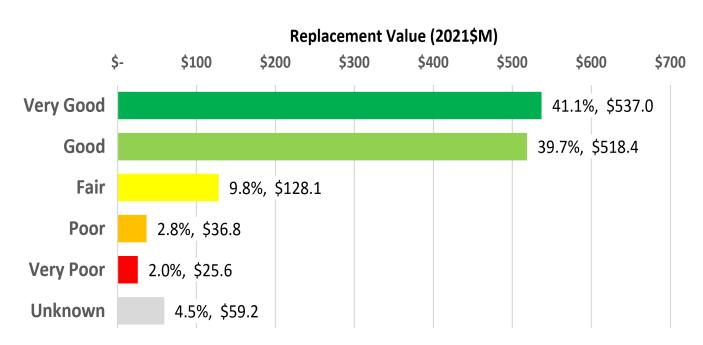
#### **OUR CITY IS 'YOUNG'**

Because much of the City's water infrastructure was constructed in the last few decades, a large proportion of these assets are early in their lifecycle and do not require major reconstruction.



## What condition are our water assets in?

Understanding the condition of assets is a key component of managing them effectively. Most water assets are in fair condition or better.





# What level of service are we providing?

95%

#### **PROPERTIES CONNECTED**

People and businesses have adequate availability of water service

**95%** 

#### **FIRE PROTECTION**

Properties have adequate availability of fire flow

0

#### **DRINKING WATER IS SAFE**

Connection-days per year where a boil water advisory notice is in place

1.8

#### **SERVICE IS RELIABLE**

Connection-days per year without service due to water main breaks

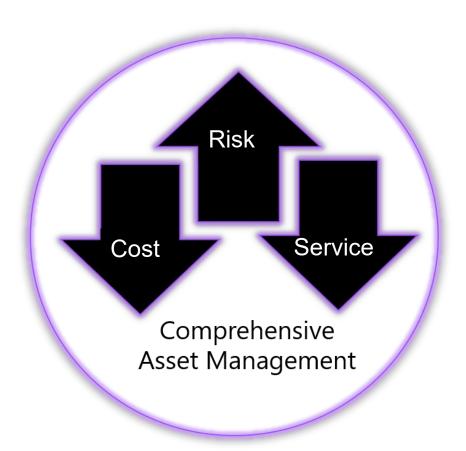








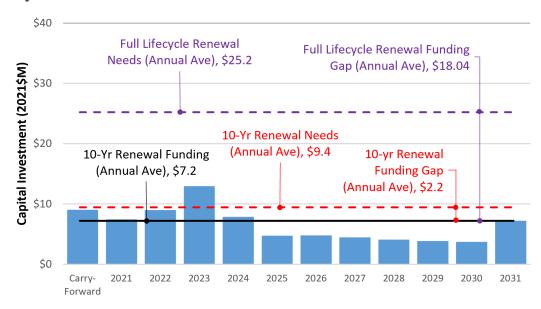
# Striking a Balance: Proposed Levels of Service



When establishing target
Levels of Service for the
future, the City must balance
between service levels, cost
of service and acceptable risk

## **Looking After What We Currently Own is a Priority**

- The City's has a projected renewal investment gap of \$2.2M / year over the next 10 years for water assets
- Despite this, Levels of Service are projected to be sustainable in the near term with available funding
- Long term, our renewal needs are much higher to achieve a sustainable renewal rate, the City should be investing an average of \$25M / year



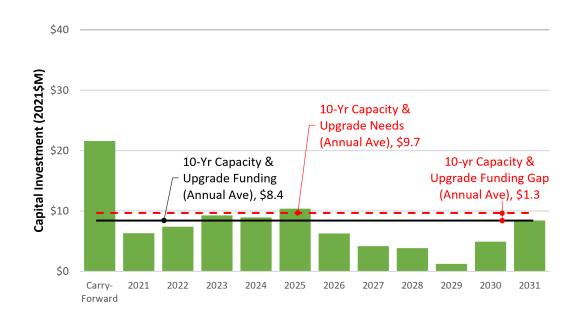


1
RENEWAL



## A Growing City Needs New and Upgraded Assets

- Investment in new or expanded water assets must keep pace with the pace of growth; Development Charges pay for some of this.
- Growth is moving slower than expected, and therefore some projects have been deferred; this aligns with the lag in DC revenue.



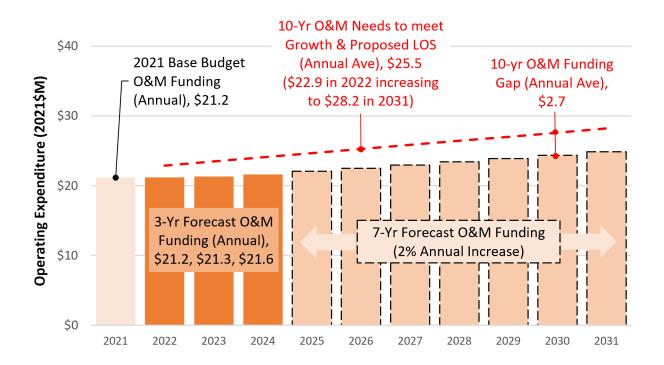


# 2 GROWTH AND UPGRADE



### **More Assets Means More Resources**

 As our water asset base increases, so must Operating and Maintenance budgets.

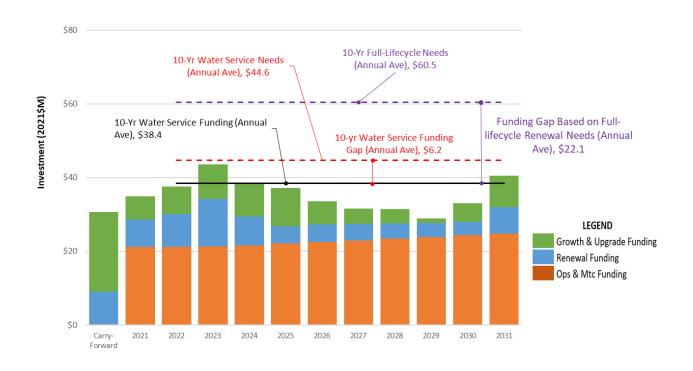








## **Total Cost of Water Services**





1+2+3

Total Required Spending





**Funding** 

We are underspending on water assets and, even with our relatively 'young' system, the City will need a long-term plan to fund the lifecycle needs of our water assets.



### **Level of Service**

When there is not enough funding to meet needs, the service level drops. Asset management helps understand this risk so it can be managed.

## **Future**

It is critical to remain
focused on renewal,
operation, and maintenance
of existing assets to avoid a
growing infrastructure gap.
The challenge is doing this
while meeting the City's
growth needs too.



# **Thank You**

