Bradford West Gwillimbury

# Public Information Centre – September 23rd, 2024

Stormwater Utility Funding Strategy – Town of Bradford West Gwillimbury

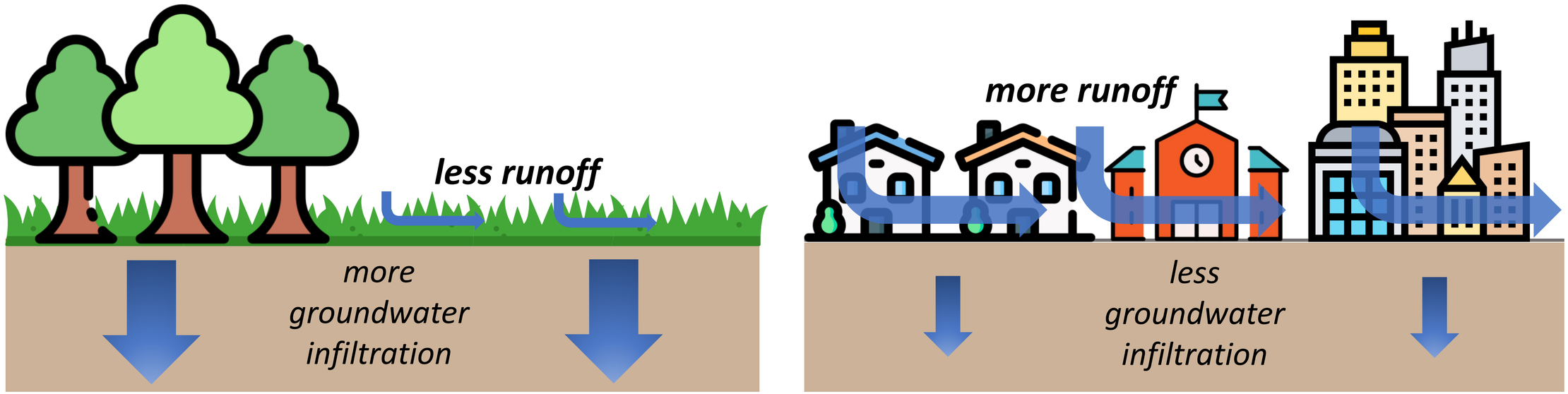
CIVICA
Water Management Solutions

# Introduction

## What is Stormwater?

Stormwater is the runoff from rain and melted snow that flows over properties and into storm drains. Normally, stormwater soaks into the ground and becomes groundwater through a process called infiltration. However, as it moves, it collects debris and pollutants from rooftops and paved surfaces, which are then carried into storm drains and local waterways.

In an urbanized area like the Town of Bradford West Gwillimbury, impermeable surfaces, such as driveways, parking lots, streets, and roofs prevent stormwater from being absorbed into the ground. This disruption in the water cycle causes stormwater to flow quickly into drains and sewers, eventually reaching our lakes and rivers, which can lead to flooding and other environmental impacts.



# Introduction

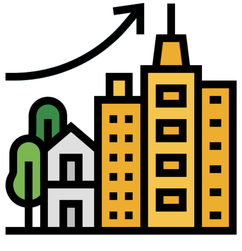
## What is Stormwater Management?

Stormwater Management is an essential system that protects the health and safety of the public and the environment by managing the quality and quantity of stormwater. Stormwater management also helps reduce the potential for flooding and erosion, and ensures our environment is healthy.


## How is Stormwater Management Funded?

- The Town currently allocates a portion of the budget to stormwater management, which competes with other municipal needs and priorities.
- Stormwater Management is funded in various ways by different municipalities, depending on their needs and financial structures. Common funding methods include tax levies and stormwater utility funds – a dedicated fund specifically for stormwater management.

## Why Adopt a Stormwater Utility Fund?



- To effectively meet the updated regulatory requirements and ensure long-term infrastructure sustainability, it is crucial to establish a dedicated funding source for stormwater management.
- It ensures aging infrastructure is maintained and supports the development of new systems to accommodate planned growth in a financially responsible way.

# Introduction


## Stormwater Rate Programs Across Canada

- 70 communities
- Focus is in urban centres
- Median population of 33,800


## How is Stormwater Management Funded in Other Municipalities?

- Depending on their needs and financial structures, stormwater management programs can be funded through approaches such as:
  - Tax levies
  - Separate stormwater management utility fees
  - Federal funding

# Introduction

## Stormwater Terminology

**Storm Sewer System**: A network of underground pipes and channels designed for flood control, which discharges into creeks, rivers, and ponds.

**Catch Basin:** A curbside opening that collects rainwater from streets and serves as an entry point to the storm drain system.

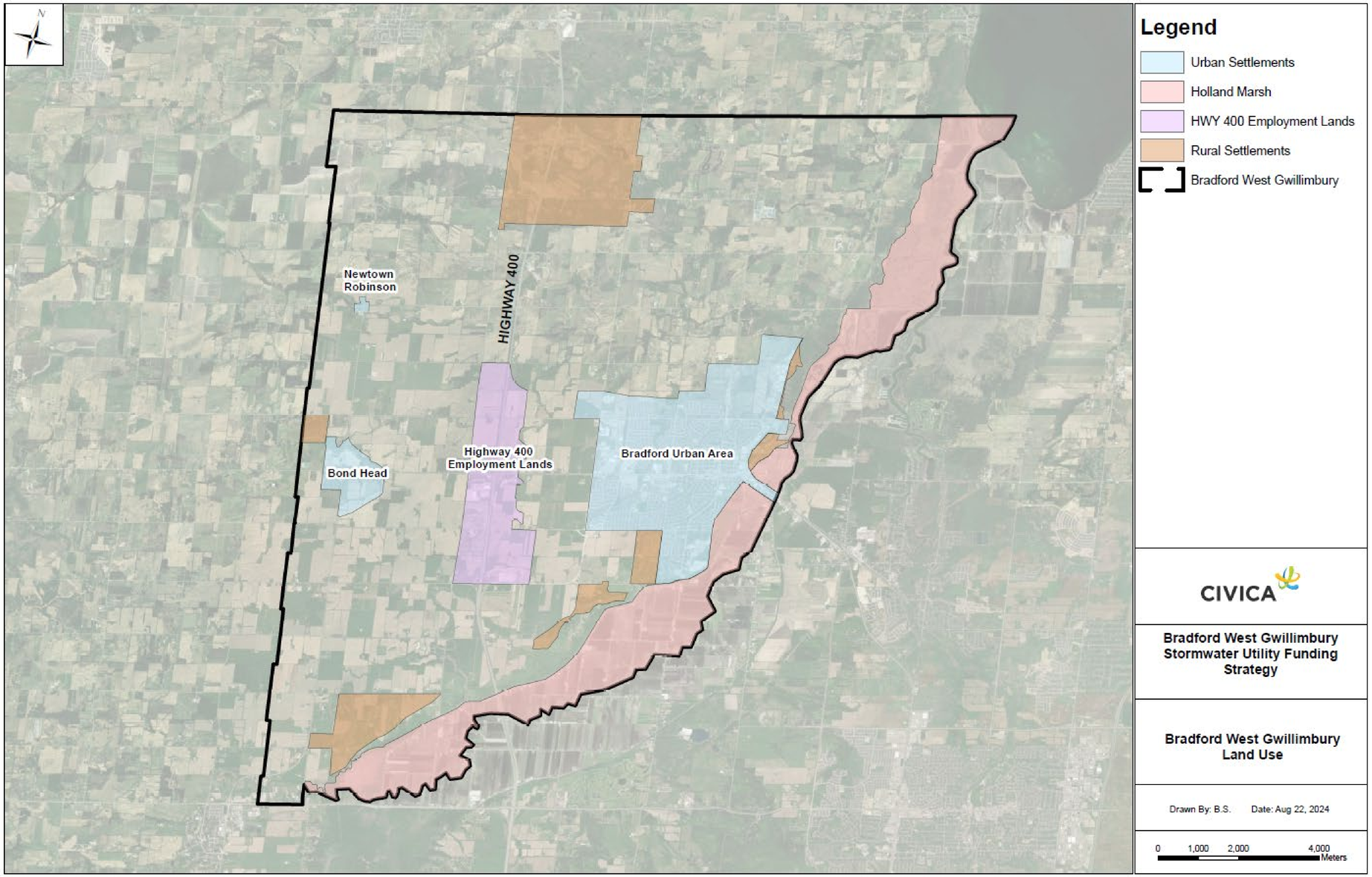
**Outfall:** Discharge point by which stormwater leaves the pipe system and enters the water system (i.e. lake, creek, or river).

**Pond:** A stormwater control structure into which storm runoff is directed. Dry ponds temporarily store incoming stormwater, and wet ponds are permanent pools of water with additional capacity.

**Culvert:** A relatively short segment of pipe that is typically used to transport water underneath a roadway or other type of earthen embankment.

**Oil and Grit Separator**: Device that captures oil and sediments from stormwater runoff and snowmelt, preventing these contaminants from entering our creeks, rivers, and ponds.

# Characteristics of Bradford West Gwillimbury




**Legend**

- Urban Settlements
- Holland Marsh
- HWY 400 Employment Lands
- Rural Settlements
- Bradford West Gwillimbury

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**Bradford West Gwillimbury Stormwater Utility Funding Strategy**

**Bradford West Gwillimbury Land Use**

Drawn By: B.S. Date: Aug 22, 2024

0 1,000 2,000 4,000 Meters

## Three Distinct Land Use Types:

- Holland Marsh
  - Separate drainage agreements
  - Well defined service area separate from other communities
  - Increased conservation protection requirements
- Urban Settlements
  - Curb and gutter with stormwater collection and ponds
  - Higher density community
  - Higher sediment and rainwater runoff volume
- Rural and Highland Farms
  - Rural and agricultural with less organized stormwater management
  - Mostly ditches and culverts

# Property Distribution

| Property Classification | Number of Parcels | Sum of Site Area (A) | Percentage of Land Mass Covered (%) |
|---|---|---|---|
| **Holland Marsh Area*** | 308 | 2,480 | 5.4% |
| **Commercial** | 165 | 966 | 2.1% |
| **Farm** | 543 | 31,379 | 68.2% |
| **Government** | 4 | 5 | 0.0% |
| **Industrial** | 92 | 832 | 1.8% |
| **Institutional** | 22 | 149 | 0.3% |
| **Vacant Land** | 1,036 | 5,886 | 12.8% |
| **Residential** | 12,953 | 4,153 | 9.0% |
| **Special Purpose** | 41 | 130 | 0.3% |
| **Total** | 15,164 | 45,980 | |

*308 properties (30 residential, 272 farm, 2 ICI, 4 land) are located in the Holland Marsh Lands and have been excluded from this funding analysis.

# Stormwater Funding Strategy

## What Are We Considering for a Potential Stormwater Funding?

**Compliance** with regulatory requirements

***Economic benefits,*** *as maintained storm system can attract new residents / businesses / tourists*

***Cost-effectiveness*** *to identify required works early-on – rather than be reactive to major problems*

***Funding*** *for maintenance and improvement costs*

***Fairness*** *such that users of the system pay for the upkeep*

**Environmental Protection** against contaminants from aging infrastructure

***Public health and safety*** *protection from pollutants and effects of unmaintained pipes, ponds, catch basins, etc.*

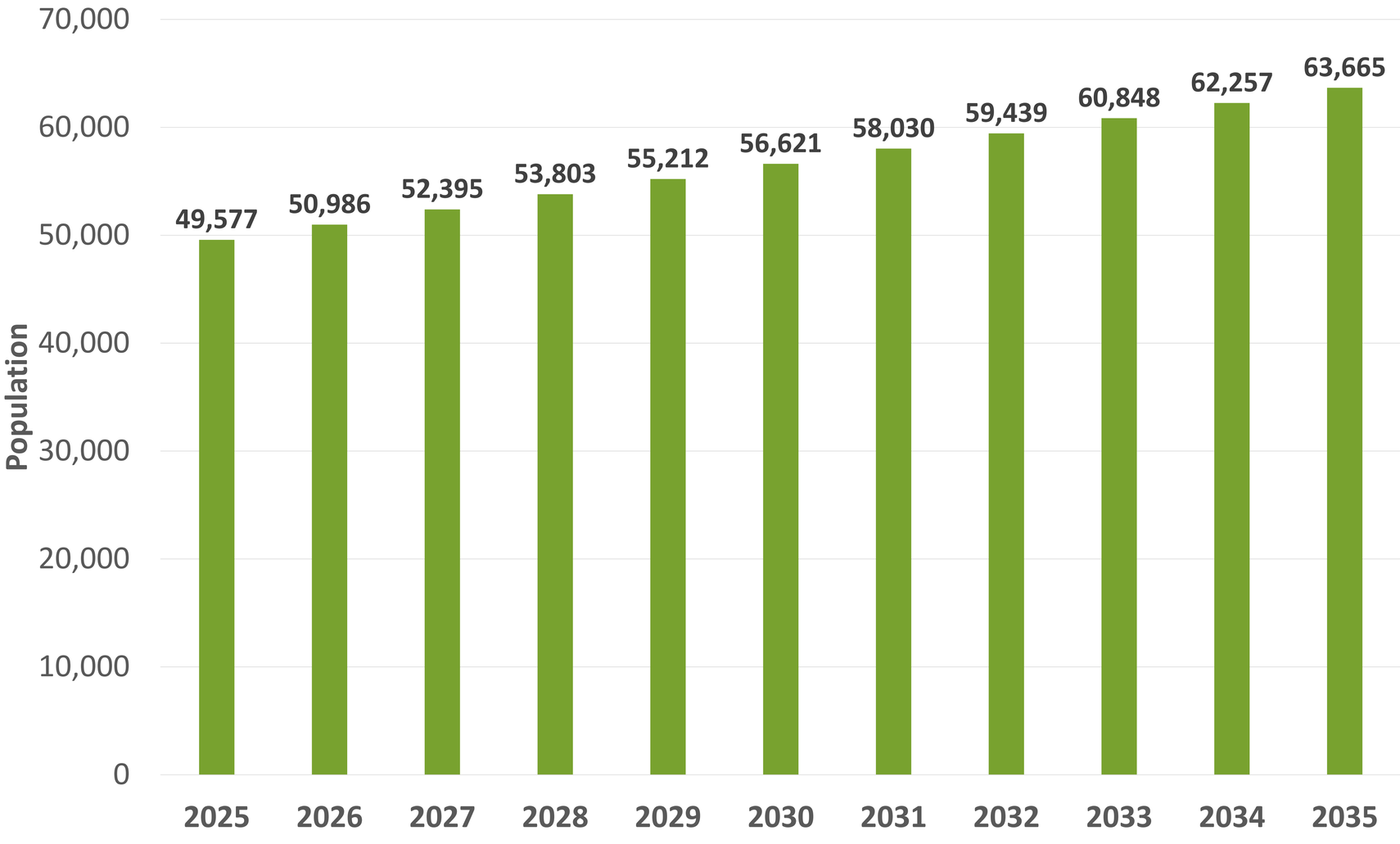
***Resilience*** *to impacts of climate change*

***Flood mitigation*** *to reduce and prevent the detrimental effects of flooding*

# Population Forecast

## Growth Rate in the Town of Bradford West Gwillimbury:

The Town has been experiencing significant growth pressures similar to other communities in Ontario. These pressures continue the drive for new housing and approvals to meet the demand and the Provincial growth targets.

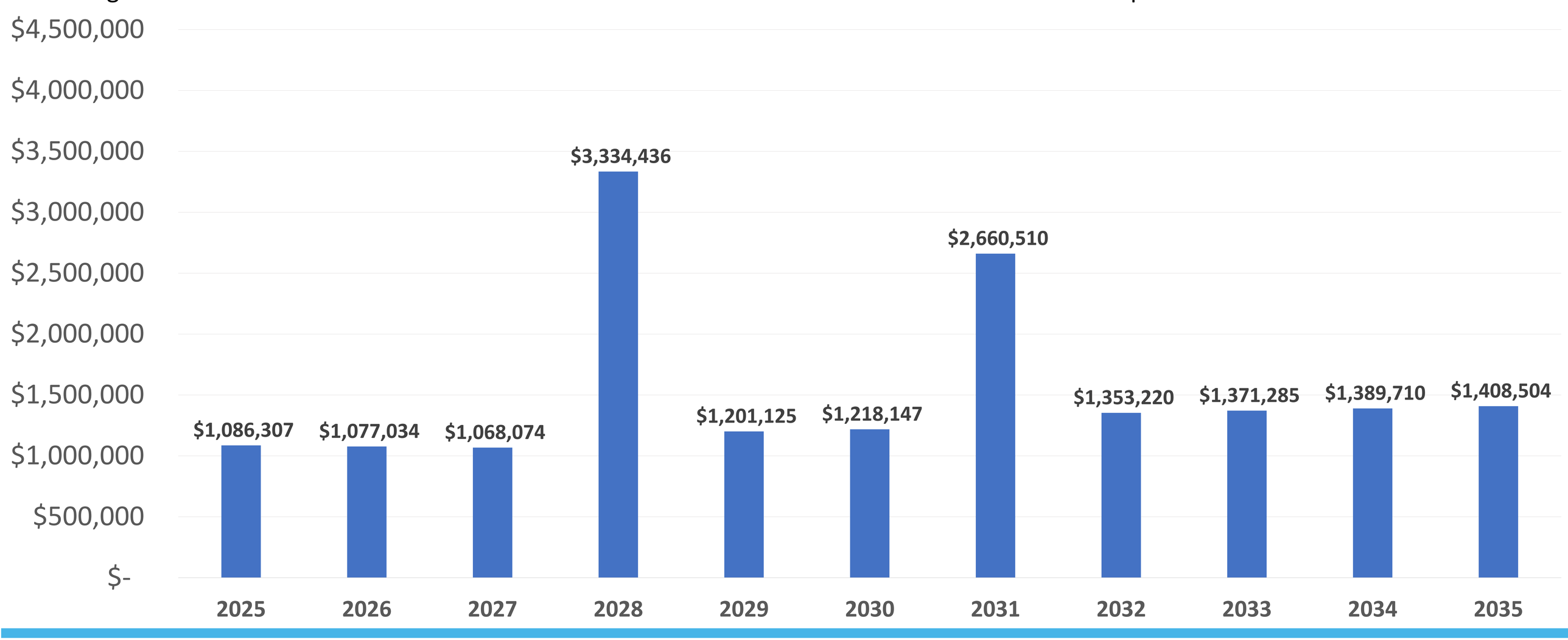



This growth rate, taken from the Town's Official Plan, was incorporated into the financial analysis as a natural source of revenue growth due to new property creation, and provides a balanced view on funding growth potential, separate from incremental rate increases.

# Financial Forecast – Base Scenario

## Current 10-year Spending Plan:

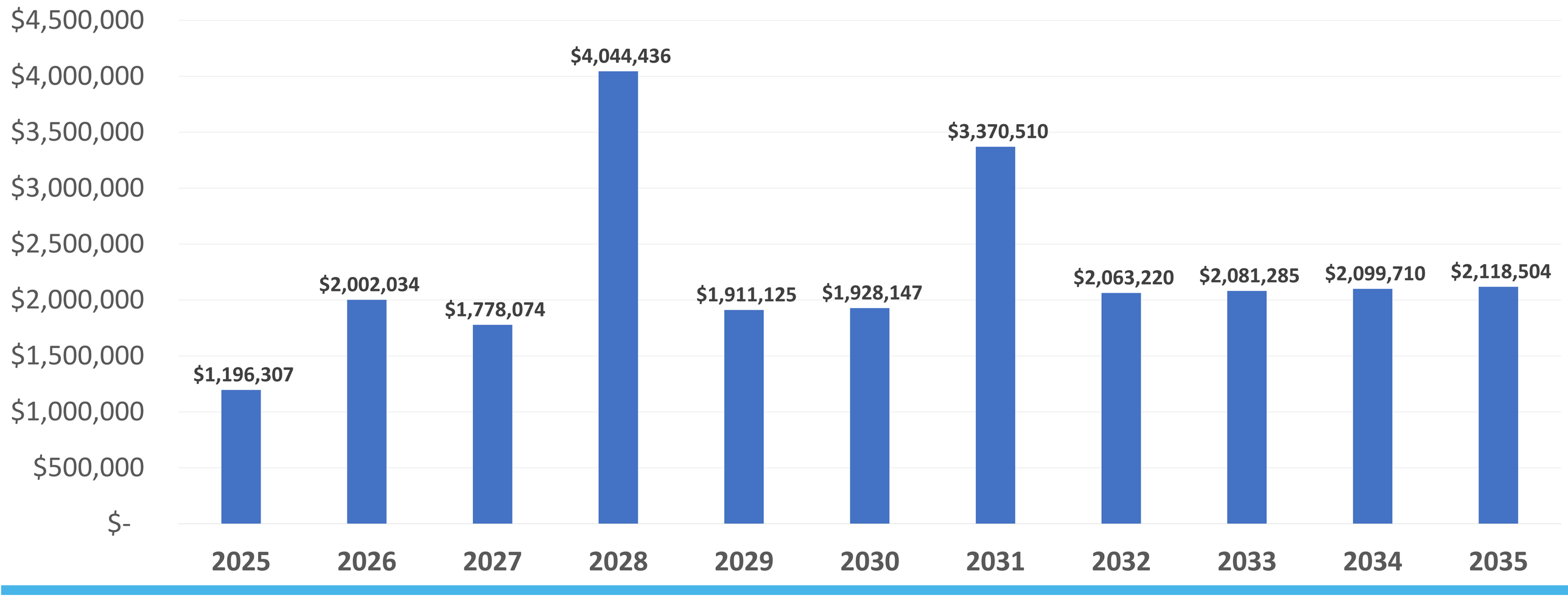
- This financial forecast is from the Town's 2024 draft budget, and includes projects related to stormwater pond maintenance, stormwater operating costs, and additional full-time employment costs.
- The stormwater management facilities in the Town require maintenance to be in compliance with the Consolidated Linear Infrastructure Environmental Compliance Approval (CLI ECA), as issued by the Ministry of the Environment Conservation and Parks. The budget takes these recommendations into consideration to ensure the Town's facilities are in compliance.



# Financial Forecast – Ultimate Scenario

## Ultimate Capital and Operating Spending Plan:

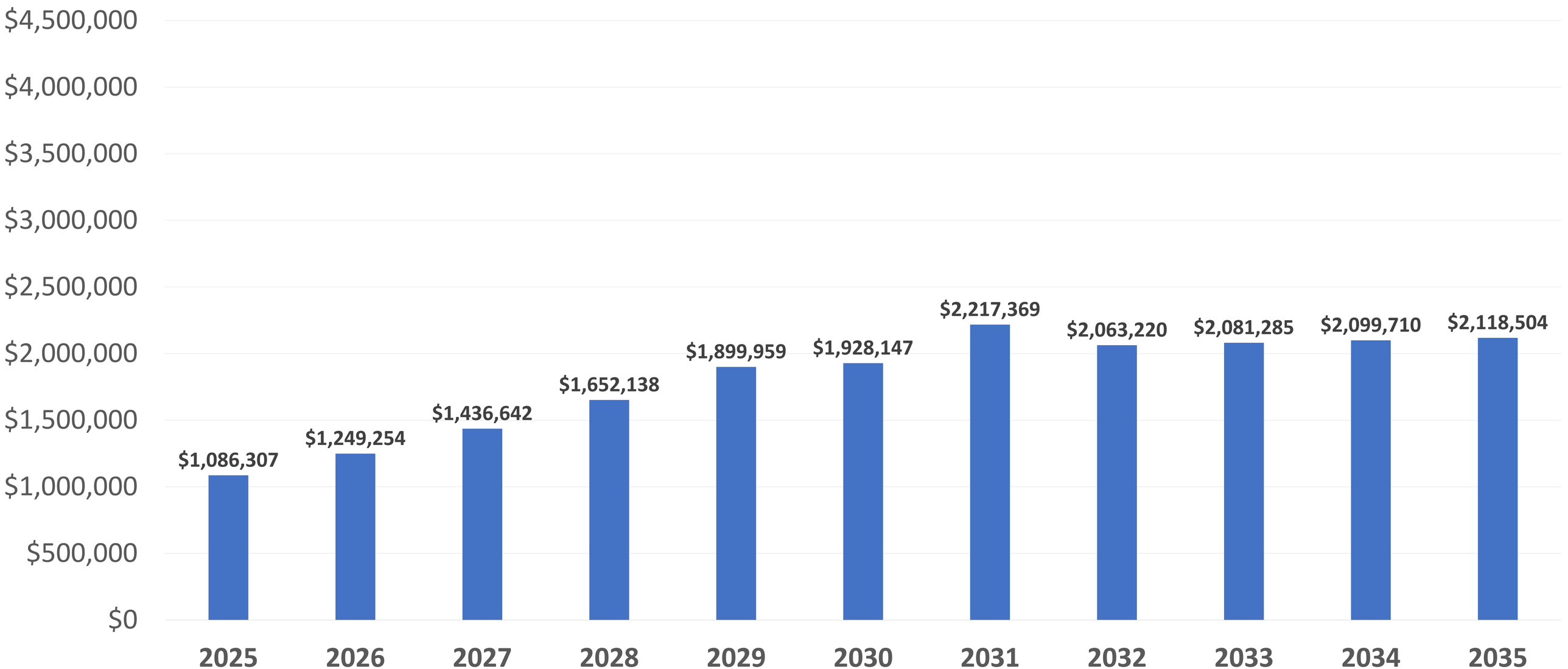
- This financial forecast incorporates proposed additional service level recommendations into the 2024 Draft Budget.
- In addition to the service level requirements outlined in the base scenario, the ultimate scenario takes into account the following:
  - Stormwater pond cleanouts
  - Operations and maintenance manual for the Town's stormwater management system
  - Stormwater annual performance report
  - Stormwater sewer catchment asset inventory



# Financial Forecast – Proposed Scenario

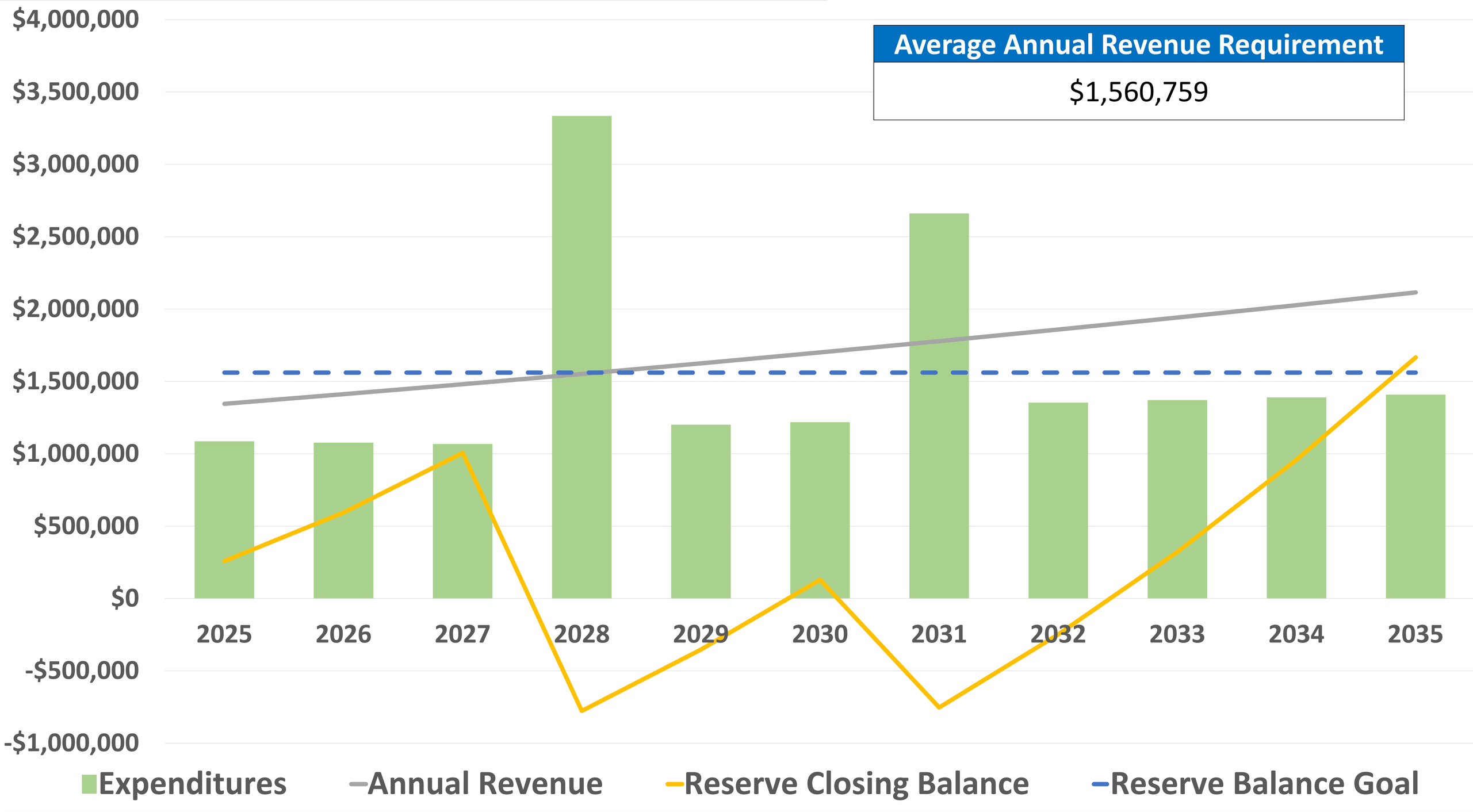
## Proposed Transitional Spending Plan:

- This financial forecast adopts a phased-in approach to the ultimate scenario. Rather than incurring a larger expenditure upfront, it gradually introduces the revenue, making it more manageable for the Town to implement.
- This proposed scenario includes the same service level as outlined in the ultimate scenario.



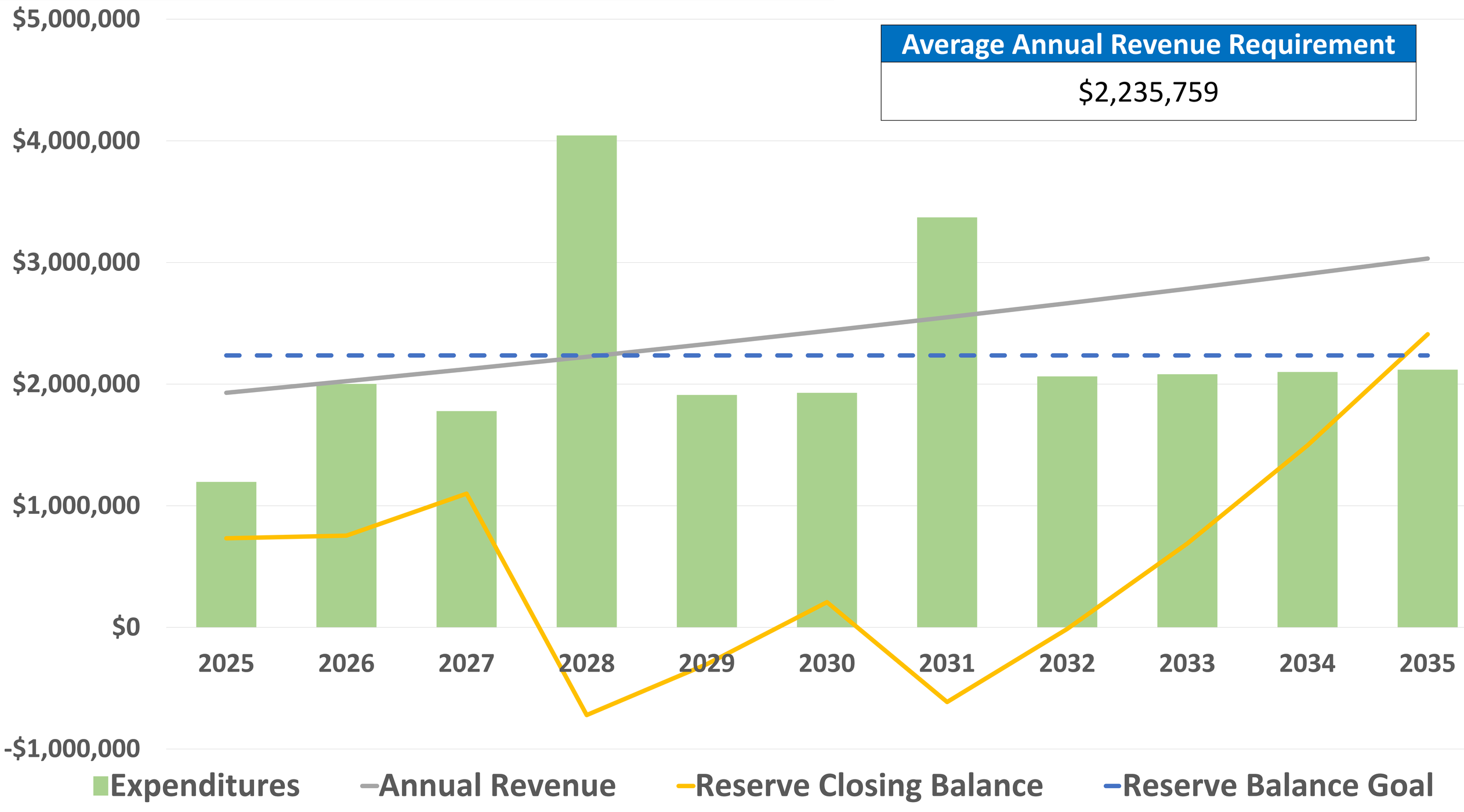
# Reserve Goal – Base Scenario

| Average Annual Revenue Requirement |
| --- |
| $1,560,759 |



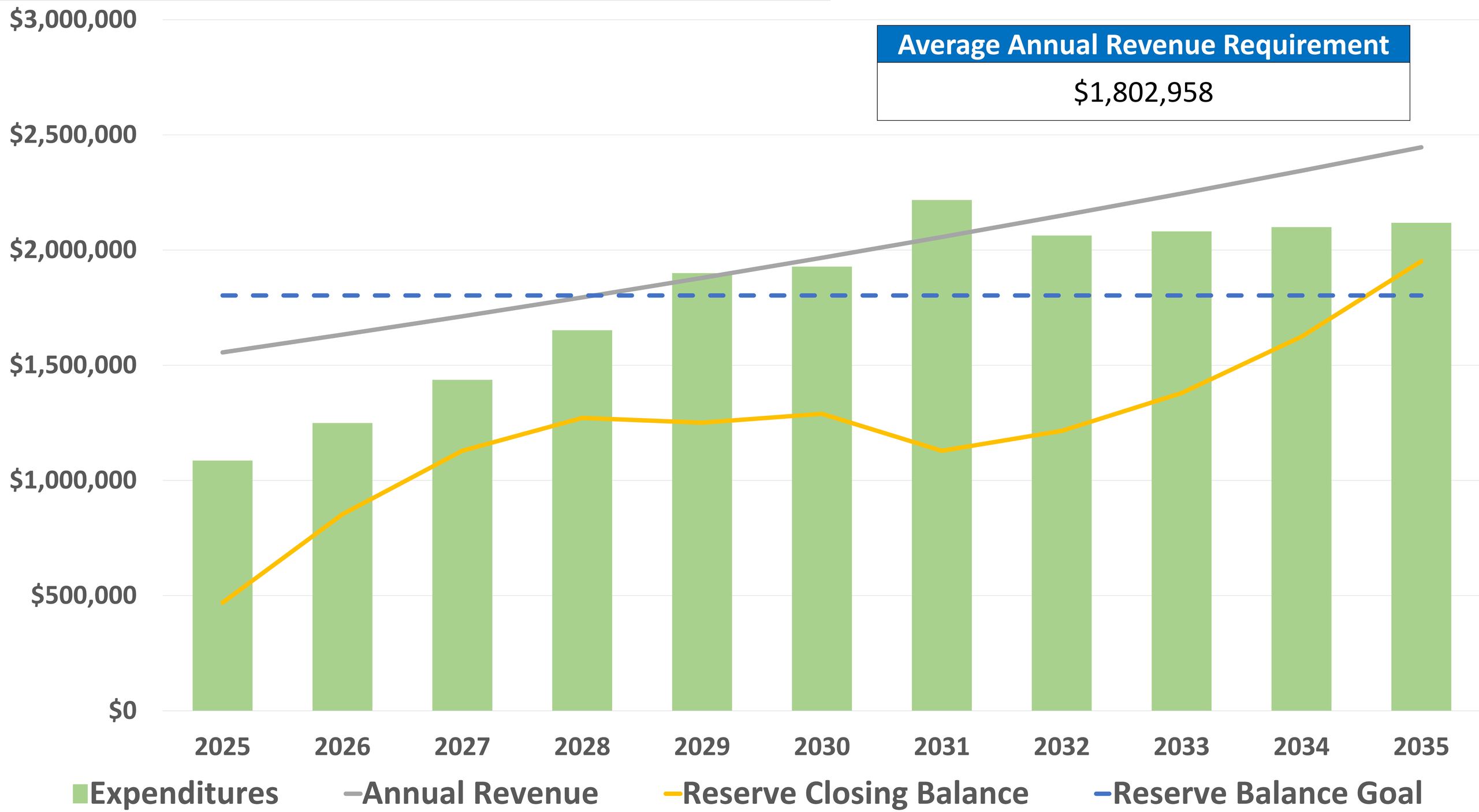
# Reserve Goal – Ultimate Scenario

| Average Annual Revenue Requirement |
| --- |
| $2,235,759 |



# Reserve Goal – Phased in Scenario

| Average Annual Revenue Requirement |
| --- |
| $1,802,958 |



# 10-Year Summary

| | Scenario 1 – Base | Scenario 2 – Ultimate | Scenario 3 – Proposed |
|---|---|---|---|
| 10-Year Total ($) | 17,168,352 | 24,593,352 | 19,832,535 |
| Average Annual Revenue ($) | 1,560,759 | 2,235,759 | **1,802,958** |

# Funding Strategies

## 1. General Revenue MPAC Data Approach

- Distribution is based on Current Value Assessment.
- Municipal Property Assessment Corporation (MPAC) is responsible for property assessment for every municipality in Ontario.
- Simplified model for allocating costs based on property type and size and determination of the tax rates for each property.

| Property Tax Class | Portion of Revenue by Tax Class | Distribution |
|---|---|---|
| Residential | $1,563,914 | 89% |
| Commercial | $128,354 | 7% |
| Industrial | $41,871 | 3% |
| Farm | $22,933 | 1% |
| **Total** | **$1,757,072** | **100%** |

## 2. Flat Rate Approach

- The flat rate approach allocates a set charge against all property types.

| Property Tax Class | Count of Municipal Addresses | Portion of Revenue by Tax Class |
|---|---|---|
| Residential, Commercial, Industrial, Farm | 14,856 | $1,802,958 |

# Funding Strategies

## 3. Land Area Approach

- Applies a more detailed property classification methodology that categorizes and identifies appropriate rates for each of the various classes based on type, land cover, stormwater system impact and capacity for the property type to contribute fees.
- The Municipal Property Assessment Corporation (MPAC) information is used as the basis.

| Property Type | Sum of Property Area (A) | Average Parcel Size (A) | Total Revenue from each Type | Distribution |
|---|---|---|---|---|
| Residential | 4,153 | 0.3 | $200,577 | 11% |
| Commercial | 966 | 6 | $46,665 | 3% |
| Industrial | 832 | 9 | $40,174 | 2% |
| Farm | 31,379 | 58 | $1,515,542 | 84% |
| **Total** | **37,330** | | **$1,802,958** | **100%** |

## 4. Impervious Surface Area Approach

- Uses more site-specific information to assess the hardscape features that have altered the soils' ability to allow infiltration of surface water.
- Features such as buildings, pavement, driveways, and other hard surfaces are included in this calculation.

| Property Type | Sum of Property Area (A) | Sum of Floor Area (square feet) | Total Revenue from each Type | Distribution |
|---|---|---|---|---|
| Residential | 4,153 | 25,806,004 | $1,577,049 | 88% |
| Commercial | 966 | 399,162 | $24,393 | 1% |
| Industrial | 832 | 1,468,886 | $89,766 | 5% |
| Farm | 31,379 | 1,828,610 | $111,749 | 6% |
| **Total** | **37,330** | **29,502,662** | **$1,802,958** | **100%** |

# Funding Strategies

## 5. Land Use Runoff Coefficient Approach

- Defined by land use runoff coefficients provided in municipal stormwater engineering design guidelines that define impervious ratios for a range of standard land uses.
- Impervious surfaces don't absorb water, so surfaces like parking lots, driveways, and roofs contribute greater stormwater runoff to the environment. Industrial and commercial properties typically contribute a higher level of runoff and therefore have a higher impervious ratio.
- The land use coefficient is applied to the property area and type, and the expected runoff is determined for each property.

| Property Type | Sum of Property Area (A) | Impervious Ratio* (Township of King) | Impervious Area (A) | Total Revenue from Each Type | Distribution |
|---|---|---|---|---|---|
| Residential | 4,153 | 45% | 1,869 | $844,496 | 47% |
| Commercial | 966 | 90% | 870 | $392,951 | 22% |
| Industrial | 832 | 75% | 624 | $281,912 | 16% |
| Farm | 31,379 | 2% | 628 | $283,598 | 16% |
| **Total** | **37,330** | | **3,990** | **$1,802,958** | **100%** |

*The Town of Bradford West Gwillimbury has not yet established its own impervious surface ratios. Therefore, for demonstrative purposes, the values from the nearby municipality of King are being used to calculate the revenue distribution.

# Evaluating Funding Strategies

| Funding Option | Fair and Equitable Allocation | Cost to Administer | Public Accountability |
|---|---|---|---|
| 1. General Revenue Approach | **Medium - based on assessed value** | **Low - easily incorporated based on MPAC data** | **Medium – somewhat logical and similar approach as nearby municipalities** |
| 2. Flat Rate Approach | **Low - same for all properties** | **Low - one fee for all properties** | **Low – not related to service use** |
| 3. Land Area Approach | **Medium - based on property size** | **Medium - based on MPAC data with some customization needed** | **Medium – somewhat logical but heavy burden on farmland** |
| 4. Impervious Surface Area Approach | **High – based on each property's hardscape area** | **High – significant resources and updating required** | **High - most related to service use** |
| 5. Land Use Runoff Coefficients Approach | **Medium - Based on simplified runoff assumptions** | **High - significant resources, especially at startup** | **High – high relation to service use** |

Members of the public are encouraged to participate in our survey to indicate their preferred method from the five options outlined above. Your feedback will be considered in the next phase of the study.

# Next Steps

## Following this Session, we will:

- Collect feedback and comments from public and stakeholders
- Update the study with recommendations and implementation plan
- Come back to council with a recommended approach

Learn more about the rate and how this applies to you by visiting our website: townofbwg.com

## Who's Listening?

**Town of Bradford West Gwillimbury**
Tony Desroches
Director of Infrastructure Services
tdesroches@townofbwg.com

**Civica Infrastructure Inc.**
Andrew Kerr
Project Manager
akerr@civi.ca