



**Solid Waste  
Master Plan**  
The future of waste is here!

# Solid Waste Master Plan – Phase 2 Update and Level of Ambition

Muskoka District Council

August 21, 2025



# Project Update

Phase 1 and Phase 2



The District Municipality of Muskoka - Solid Waste Master Plan

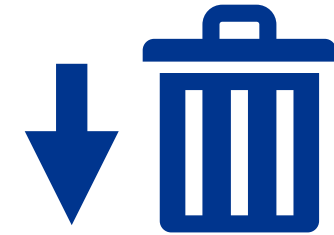
# What is a Solid Waste Master Plan?



A guide to achieving waste management goals in the next 30 years



An outline of strategies, policies and programs to meet future needs



A response to a growing population and landfill space running out



# Balancing Priorities



# Ambitious District Targets



**Reduce garbage generation by 10% by 2030, 25% by 2050**



**Divert 60% of all solid waste from landfill by 2030, 80% by 2050**

# The “Story” of Phase 1

The District covers  
**4,774 km<sup>2</sup>** in area

**36%** of the area is  
water and wetlands

**Total Population in 2021:**  
**151,074**

of which **44%** live in the  
**District** year-round

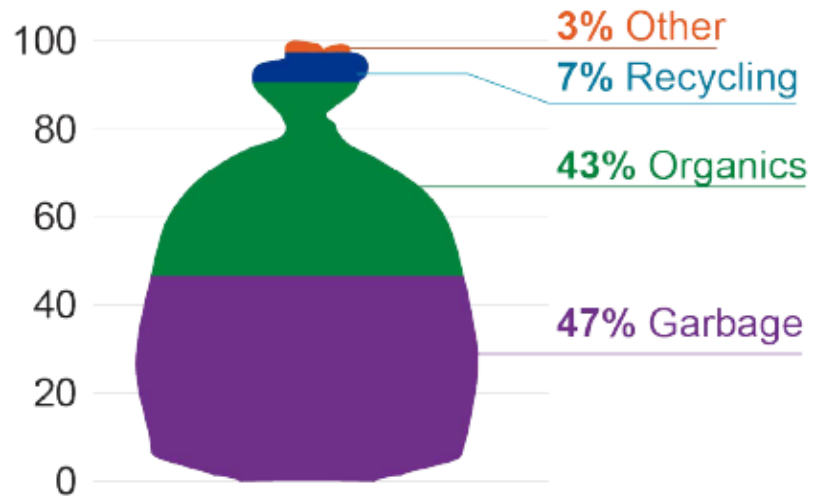


**47%**

of all households  
are Second Homes of  
which only **35% are on**  
**public roadways**

# The “Story” of Phase 1

## Contamination Breakdown: Percentage of other waste streams found in the garbage (2024)



**73%**

of households receive  
garbage curbside collection  
in summer

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**26,000 tonnes**

of garbage managed in 2023

# The “Story” of Phase 1

**37%**  
of waste diverted from  
landfill in 2023

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**15 years**  
remaining landfill  
capacity at the  
Rosewarne Landfill



**60,000 tonnes**  
CO<sub>2</sub>e/year from solid waste  
management, **99% from**  
**active and closed landfills**

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waste management sites  
include

**10 Transfer Stations**

**4 Drop-off Depots**



# How We Are Engaging the Community



**Community Based  
Steering Committee**



**Online  
Survey**



**Engage  
Muskoka**



**Open Houses  
(in-person and online)**



**Workshops**



**Reports**



**Community  
Pop-Up Events**



**Waste App**

# Phase 1 Engagement by the Numbers



**2,000**

Survey responses



**7**

Community  
Pop-ups



**3,313**

Visitors to Engage  
Muskoka



**57,000**

Views on Social  
Media

# What We Heard – The Key Themes



**Diversion and  
Waste  
Reduction**



**More  
Diversion  
Programs**



**Waste  
Reduction at  
the Source**



**Promote Circular  
Economy and  
Innovation**



**Address Equity  
and Accessibility**



**Change Management  
Solutions**



**Communications  
and Education**

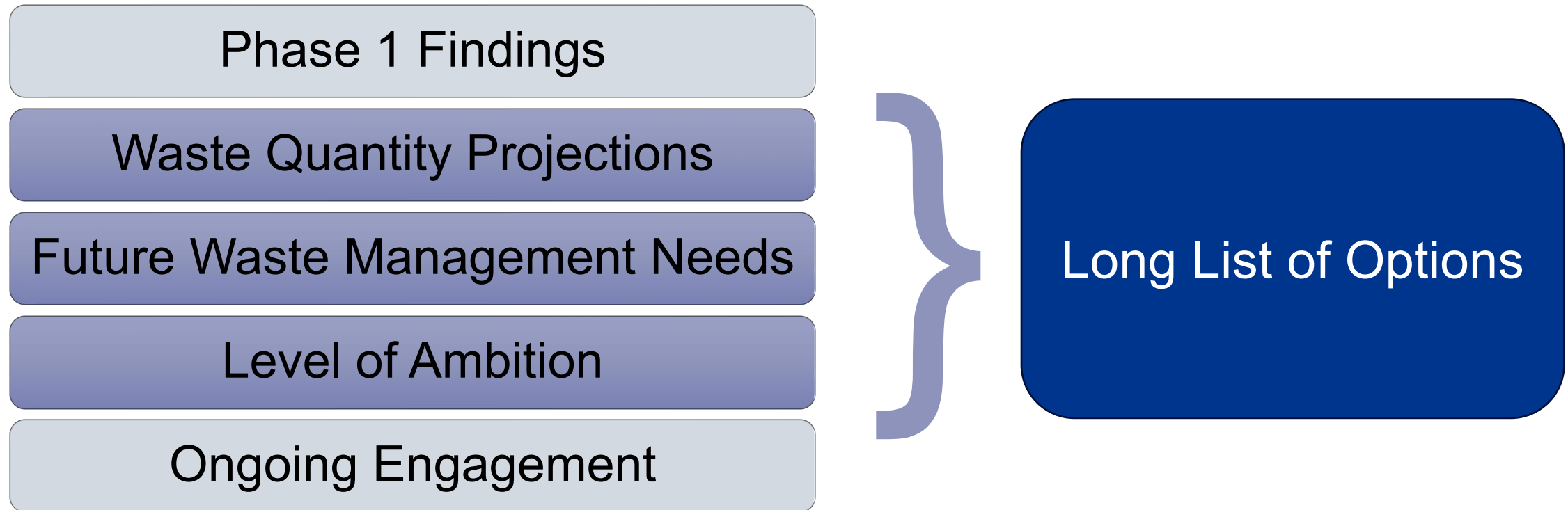


**Programs for Furniture  
and Appliances**

# Project Overview

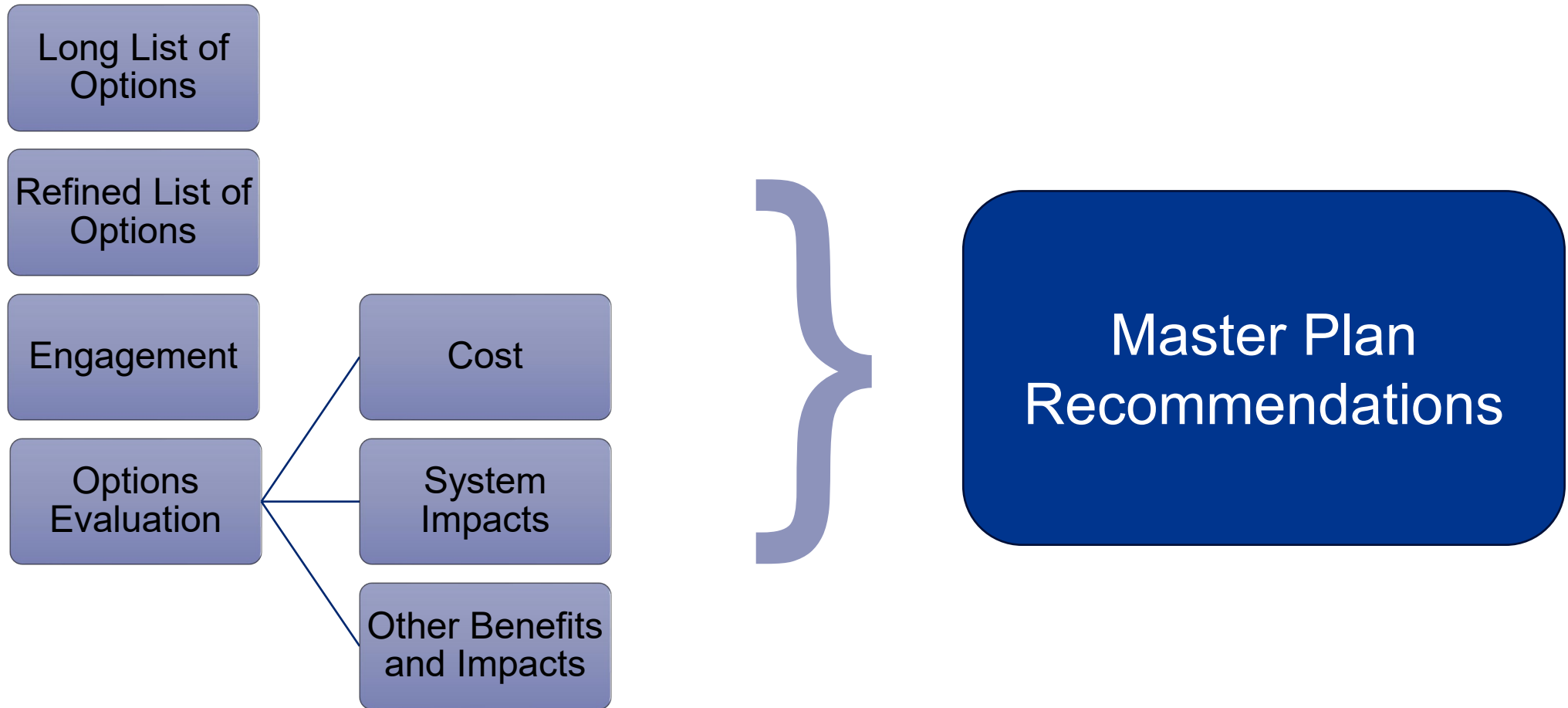


# Phase 2 Status





# Phase 2 Next Steps



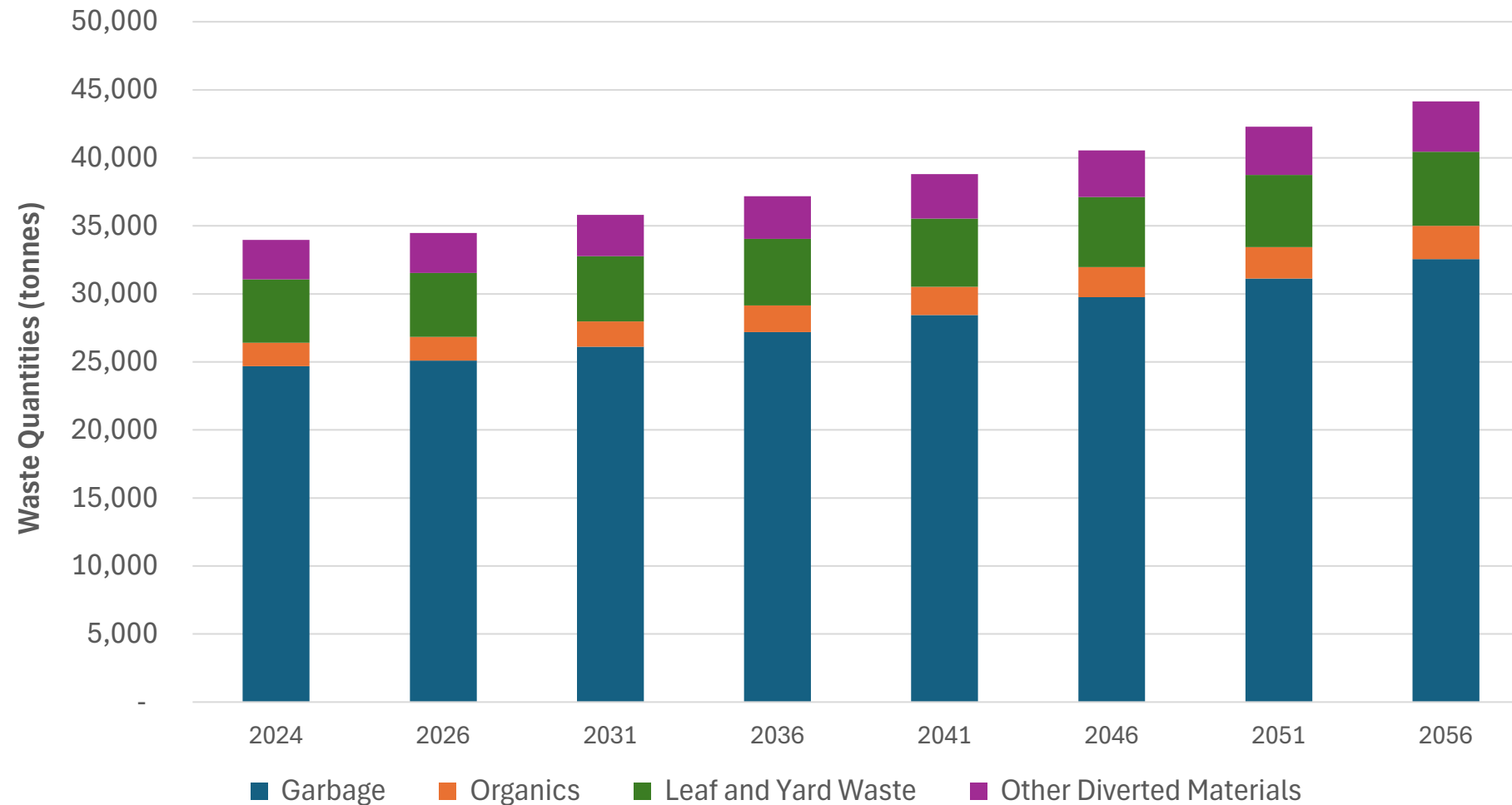
# Future Waste Management Needs

## Phase 2



The District Municipality of Muskoka - Solid Waste Master Plan

# Waste Quantity Projections



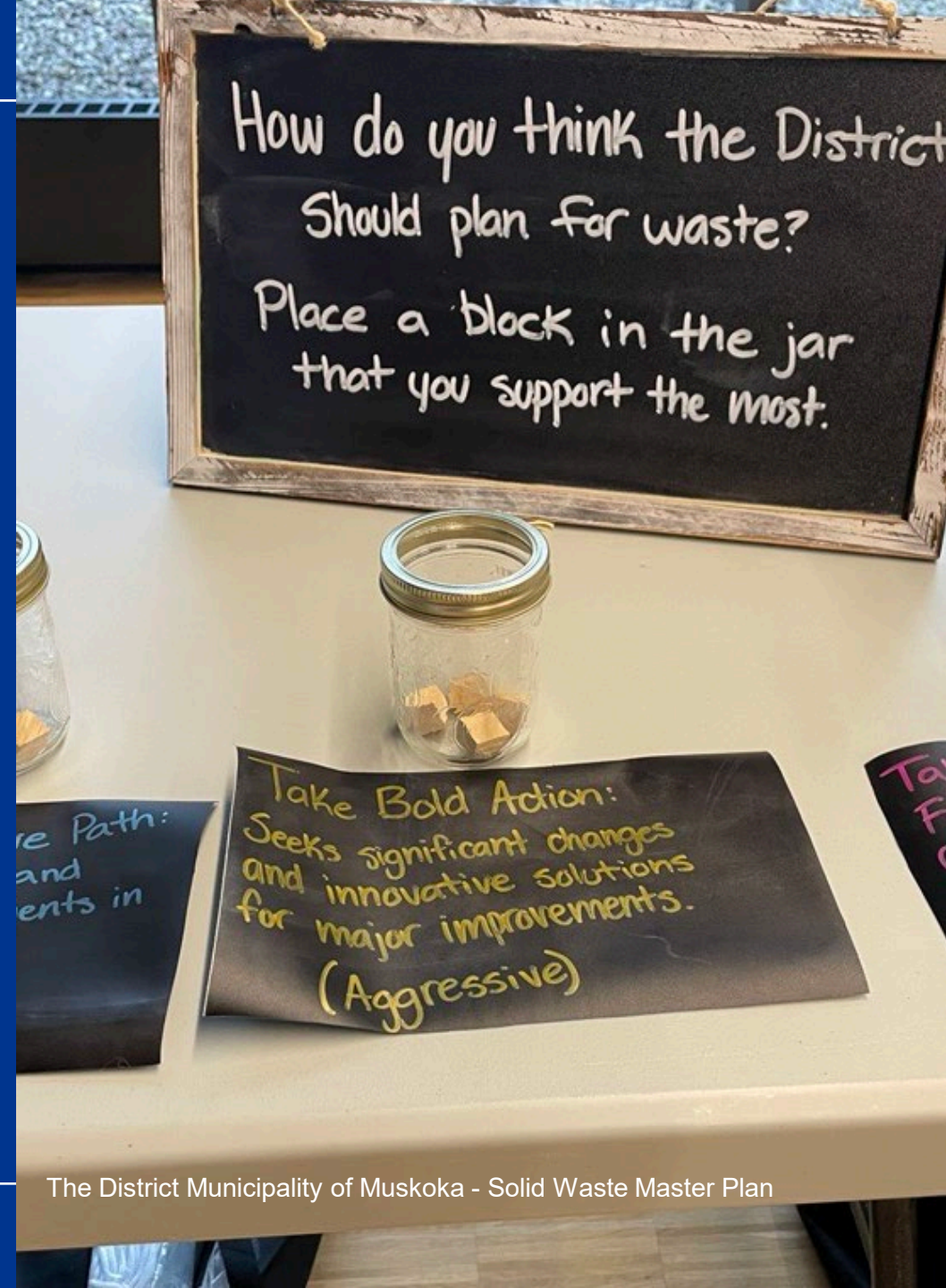
# Key Waste Management Needs

1. Reducing waste to landfill through waste reduction and diversion
2. Realizing alternatives for the Rosewarne landfill
3. Reducing GHG emissions from landfills
4. Optimizing the collection system
5. Strategically define the boundary of the District's waste management system



# Level of Ambition

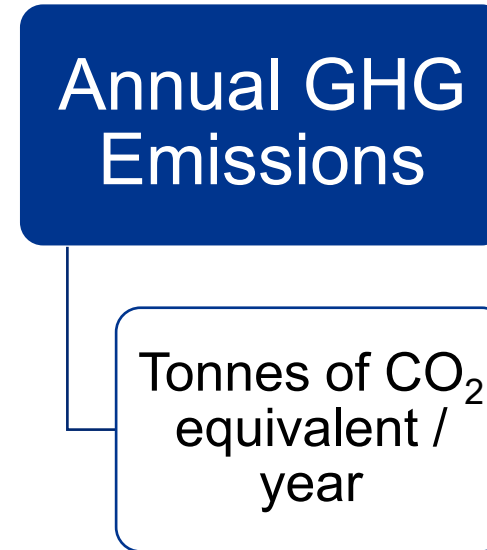
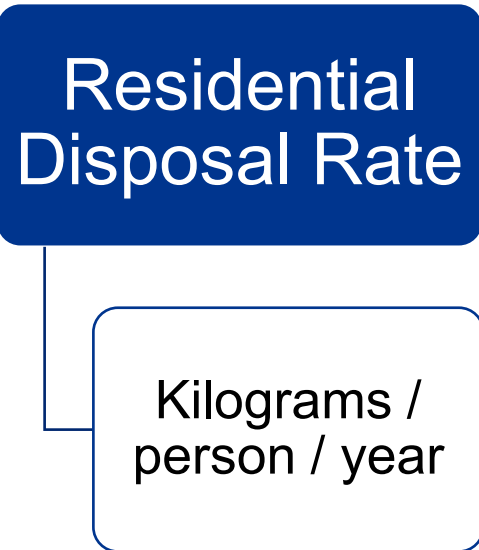
## Phase 2





# Key Performance Indicators

## Primary indicators:



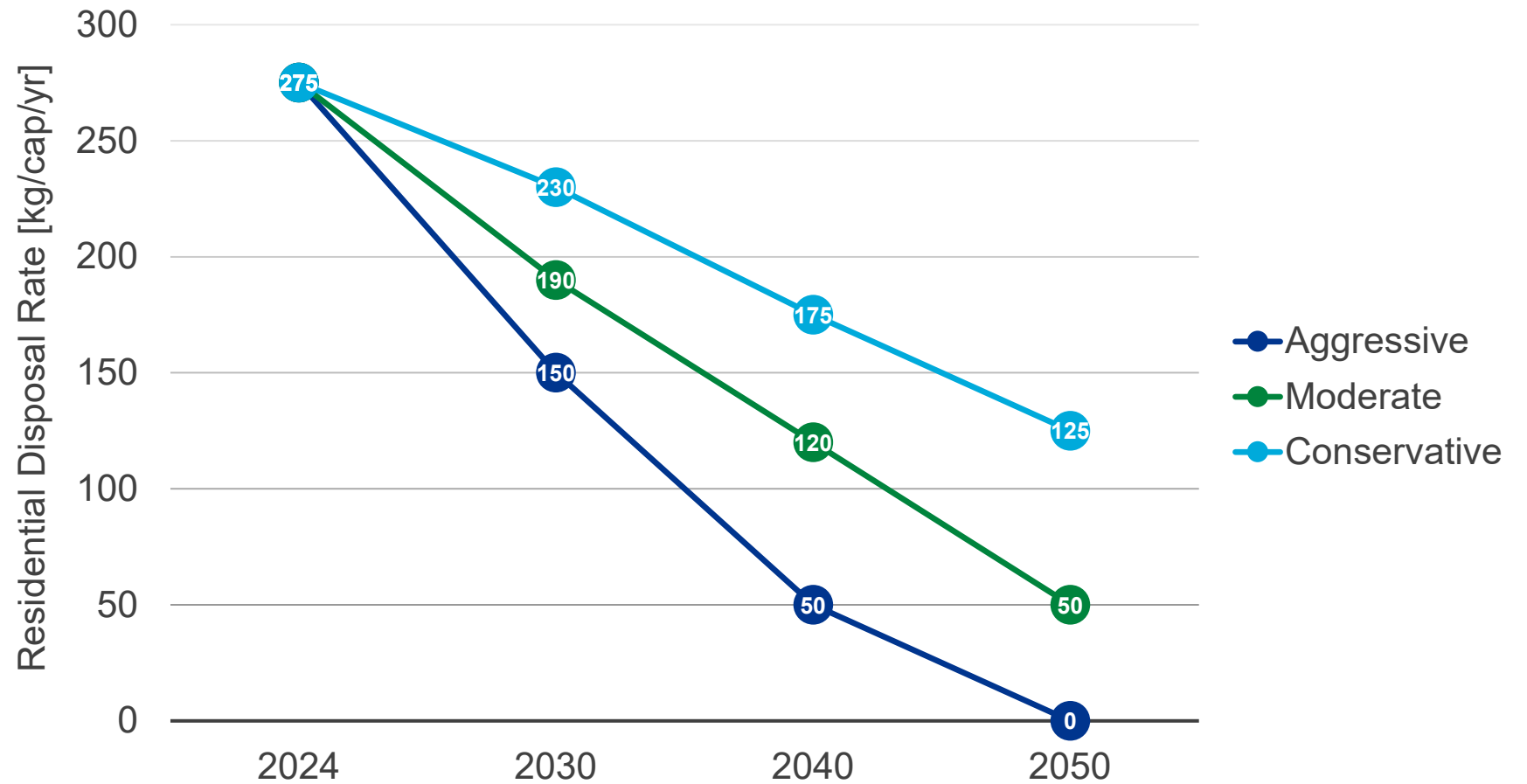
## Complementary indicators (examples)

- Remaining Landfill Capacity (years)
- Green Bin Organic Waste Quantity (kg/person or kg/facility)

# Target Setting

2024 Residential  
Disposal Rate:

**275 kg per  
person per year**



# Financial Components of the Master Plan

Phase 2



# Table of Contents – Financial Components



**01** Alternative Financial Models Technical Memo

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**02** Overview of Current Funding Model

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**03** Overview of Current Operating Model

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**04** Potential Funding Strategies and Additional Revenue Streams

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**05** Residential Archetypes Cost Impact

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**06** Next Steps

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Appendix A

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# Alternative Financial Models Technical Memo

Adjustments to the current funding model and additional revenue streams are considered as part of the development of the SWMP. Several unique considerations were identified as critical in exploring the applicability of the alternative waste management funding strategies:



**Types of Service Delivery and Tonnage**



**Service Access Conditions**



**Seasonal Variation in Demand**



**Studies Commissioned by the District**



**Characteristics of Second Homes**



**Infrastructure and Policy Modification from Evolving Expectations**



# Overview of Current Funding Model

The District's Solid Waste Services (SWS) funding model is primarily supported by several revenue sources, including user fees, provincial grants, and supplementary taxes. To offset the remainder of the District's SWS expenditures, the solid waste levy is calculated.

## Solid Waste Services Revenue Composition (2024)



**\$15.7M (68.6%)**

Solid Waste Levy



**\$4.8M ( 20.8%)**

User Fees



**\$2.2M (9.7%)**

Provincial Grants



**\$0.2M (0.9%)**

Supplementary Taxes

**\$22.9M (100%)**

Total Revenue (2024)

## Dedicated Solid Waste Levy Calculation




The levy once calculated is split into the following three categories and distributed based on service levels\*:

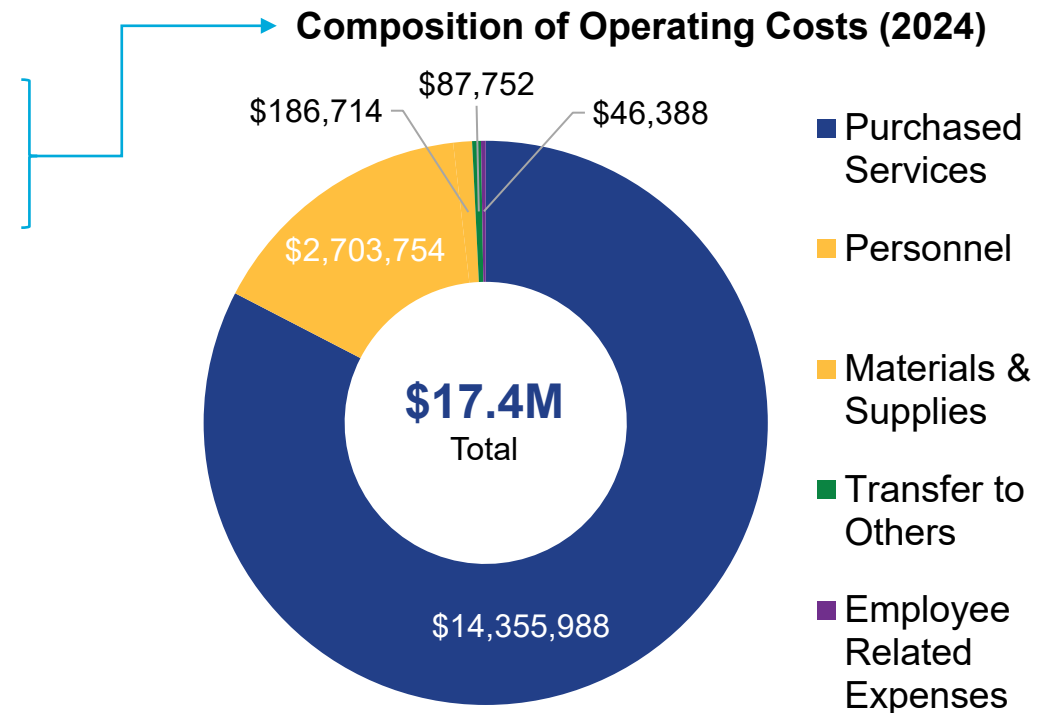
- **Curbside Collection**
- **Non-curbside Collection**
- **Disposal and Diversion**

**\*Note:** Refer to Appendix A for full detail on the solid waste levy distribution for each Area Municipality.

# Overview of Current Operating Model

The District's SWS 2024 budget is comprised of two (2) primary types of costs: operating costs and capital costs.

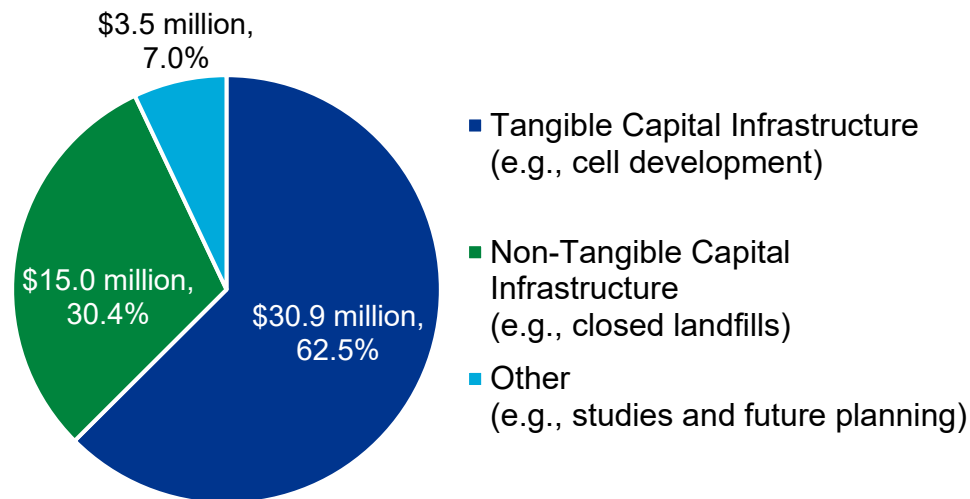
\$	
Expenditure Categories	Description
 <b>\$17.4M</b> <b>(75.8%)</b> Operating Costs	<ul style="list-style-type: none"> <li>Includes costs related to salaries and wages, and fees paid for completion of third-party services</li> </ul>
 <b>\$2.8M</b> <b>(12.4%)</b> Finance Charges/Reserves	<ul style="list-style-type: none"> <li>Includes costs related to debt servicing and contributions to the District's capital/operating reserve funds</li> </ul>
 <b>\$2.7M</b> <b>(11.8%)</b> Internal Service Charges	<ul style="list-style-type: none"> <li>Represents internal charges/allocated costs to SWS such as fleet operations, insurance, and support services</li> </ul>



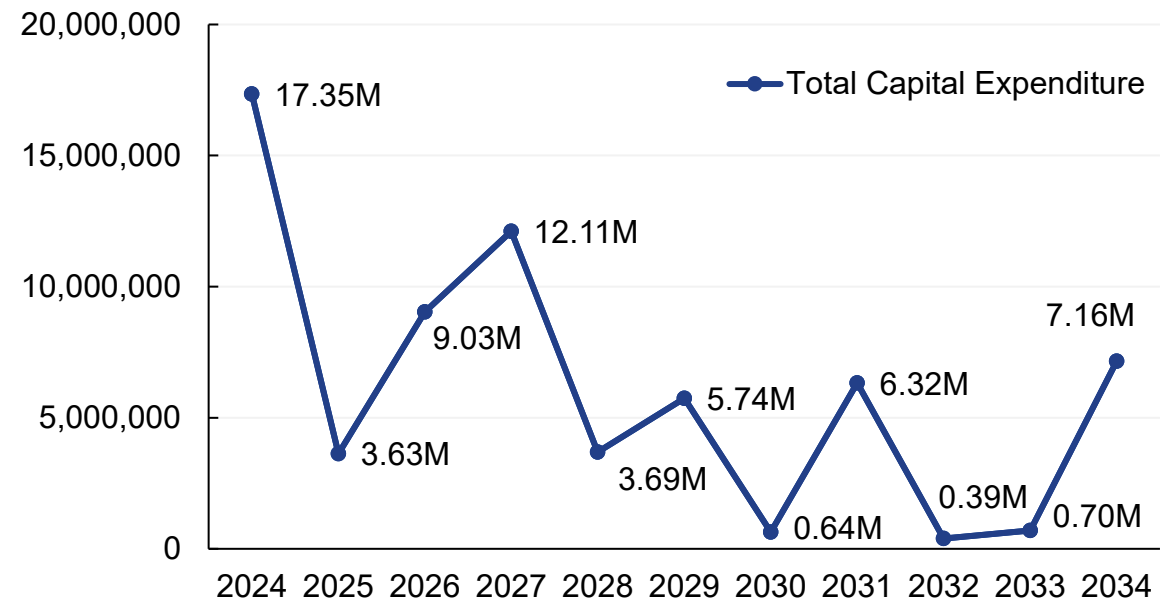
# What is the Capital Forecast by Major Category and How is it Funded?

The District has developed a ten-year capital plan for solid waste management (2025 - 2034). This consolidated investment plan reflects a proactive and forward-looking approach to maintaining system capacity and enhancing service delivery across the District.

**Distribution of the Total Capital Funding across 2025 - 2034**



**Annual Capital Expenditure Between 2024 and 2034 (in \$ Millions)**



# Potential Funding Strategies and Additional Revenue Streams

## Overview

Within the draft Technical Memo – Alternative Financial Models, KPMG identified key considerations, several funding models, rate structures, and additional revenue streams.

### Funding Models

- Rate-based
- Property tax
- Hybrid (i.e., Property tax in conjunction with Rate-based)

### Rate Structures

- PAYT (bag/tag-based)
- PAYT (variable cart program)
- Flat fee structure (often referred to as a utility-based fee structure)

### Additional Revenue Streams

- Premium and/or additional collection services
- Development charges (DC's)

The following key elements are discussed for each mechanism in the subsequent slides:



**Overview:** Description of the funding mechanism.



**Applicability to the District:** Description of the challenges and/or benefits of the funding mechanism in the context of implementation by the District.



**Financial Considerations:** Description of the potential order of magnitude cost impacts, as well as funding considerations based on the strength and sustainability of each mechanism.

**Note:** While this memo presents a range of potential funding mechanisms and revenue sources, it does not put forward formal recommendations.

# Potential Funding Strategies – Funding Models

Key Elements	01. Rate-Based Funding Model	02. Property Tax Funding Model	03. Hybrid Funding Model
01 Overview	<ul style="list-style-type: none"> <li>– Links fees to service use; supports full cost recovery.</li> <li>– Can expand to curbside via utility-style billing (e.g., PAYT in Toronto).</li> </ul>	<ul style="list-style-type: none"> <li>– Recovers costs via property taxes, based on assessed value.                             <ul style="list-style-type: none"> <li>○ Limited alignment with usage; can add rate structures for flexibility.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– Core services funded by property taxes; variable services by user rates.</li> <li>– District already operates a partial hybrid model.</li> </ul>
02 Applicability to the District	<ul style="list-style-type: none"> <li>– This model improves transparency and aligns fees with actual cost of service.</li> <li>– May face opposition from low-value properties; risk of discouraging diversion if poorly designed.</li> </ul>	<ul style="list-style-type: none"> <li>– Provides stable, predictable revenue for ongoing service and reserves.</li> <li>– Common in Ontario; less effective at encouraging diversion unless supplemented with user fees.</li> </ul>	<ul style="list-style-type: none"> <li>– Aligns costs with usage; supports diversion especially for high-volume users.</li> <li>– Seasonal and remote properties complicate rate-setting and service alignment.</li> </ul>
03 Financial Considerations	<ul style="list-style-type: none"> <li>– May require system upgrades, new capital, and more admin capacity.</li> <li>– Muskoka's seasonal population, access challenges, and contractor pricing based on stops, make forecasting and cost alignment more complex.</li> </ul>	<ul style="list-style-type: none"> <li>– District mainly operates under this model; minimal new capital needed.</li> <li>– Possible minor operating impacts (e.g., additional staff) if expanded to recover full SWS costs.</li> </ul>	<ul style="list-style-type: none"> <li>– Expansion would need incremental, not major, operational change.                             <ul style="list-style-type: none"> <li>○ Many of the foundational systems needed to support a full hybrid model are already in place.</li> </ul> </li> </ul>



# Potential Funding Strategies – Rate Structures

Key Elements	01. PAYT (Bag/Tag-Based)	02. PAYT (Variable Cart Program)	03. Flat Fee Structure
01 Overview	<ul style="list-style-type: none"> <li>– Charges per bag; municipalities manage bag distribution.</li> <li>– Structures vary: some offer free initial bags, others charge annual fees + per-bag rates.</li> <li>– Seasonal and water-access properties may need tailored approaches.</li> </ul>	<ul style="list-style-type: none"> <li>– Charges based on bin size/number; encourages diversion.</li> </ul>	<ul style="list-style-type: none"> <li>– Single fee for waste service, regardless of volume or frequency.</li> <li>– Can vary by customer type or service type.</li> </ul>
02 Applicability to the District	<ul style="list-style-type: none"> <li>– Can include short-term “waste packages” for renters. Offering a set number of bags/tags.</li> <li>– High per-bag fees encourage waste reduction; risk of contamination or illegal dumping.</li> </ul>	<ul style="list-style-type: none"> <li>– Allows customers select bin sizes, aligning fees with use. <ul style="list-style-type: none"> <li>○ Supports automation and offers predictable billing across seasonal changes.</li> </ul> </li> <li>– Less feasible for remote/water-access areas.</li> </ul>	<ul style="list-style-type: none"> <li>– Easy to adjust rates; suitable for Muskoka’s varied service levels and seasonal programs.</li> <li>– May be seen as unfair to low-usage residents (i.e., Second Home residents); potential for illegal dumping.</li> </ul>
03 Financial Considerations	<ul style="list-style-type: none"> <li>– No capital costs; minor staffing/admin costs if fully implemented.</li> <li>– Start-up costs for bag/tag production and retail partnerships.</li> </ul>	<ul style="list-style-type: none"> <li>– Significant one-time capital costs for implementation.</li> <li>– Additional costs include cart storage, maintenance, delivery, customer service, and potential billing complexity.</li> </ul>	<ul style="list-style-type: none"> <li>– No capital costs, but could raise admin costs for billing and dispute management.</li> </ul>

# Potential Funding Strategies – Additional Revenue Streams

Key Elements	01. Premium and/or Additional Collection Services	02. Development Charges
01 Overview	<ul style="list-style-type: none"> <li>– Customers can pay for enhanced services (e.g., doorstep collection, bulky item pickup, extra frequency).               <ul style="list-style-type: none"> <li>○ Example: Belleville charges \$20–\$50 year-round for bulky item collection.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– One-time fees to offset growth-related waste diversion and collection capital costs.</li> <li>– Bill 23 (2024) removed the five-year phase-in, allowing cost recovery from day one.</li> <li>– Landfill sites/incineration are ineligible for DC funding.</li> </ul>
02 Applicability to the District	<ul style="list-style-type: none"> <li>– Tailored services for seasonal or high-demand customers; challenge is ensuring demand covers costs.</li> <li>– If premium and non-premium services share routes, it may increase the administrative burden on operators to identify premium service customers.               <ul style="list-style-type: none"> <li>○ GPS tech could track premium service, but connectivity gaps may limit use.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– DCs help recover costs in growth areas (e.g., Huntsville and Georgian Bay).</li> <li>– May raise equity/policy issues in areas with limited curbside service.</li> </ul>
03 Financial Considerations	<ul style="list-style-type: none"> <li>– Capital costs may rise for more frequent collection or larger fleets.</li> <li>– Higher O&amp;M costs for extra service.</li> <li>– Collection rates for premium and/or additional services can be set to recover the capital and operational costs.</li> </ul>	<ul style="list-style-type: none"> <li>– No capital costs to implement; minimal O&amp;M costs except for required annual analysis to justify rates.</li> </ul>

# Residential Archetypes Cost Impact – Status Quo

To evaluate the financial impact of three specific residential archetype profiles identified by the District, KPMG conducted a cost impact analysis. The profiles and associated assumptions outlined below were developed to reflect local conditions and ensure alignment with the District.

	Archetype 1	Archetype 2	Archetype 3
<b>Assumptions</b>			
Household Descriptor (All archetypes are assumed to reside in the same Area Municipality)	<ul style="list-style-type: none"> <li>– Lives in-town                             <ul style="list-style-type: none"> <li>○ Low-Income Family</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– First-time home buyer                             <ul style="list-style-type: none"> <li>○ Middle-Income Family</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– Cottage-owner                             <ul style="list-style-type: none"> <li>○ Second home township resident</li> </ul> </li> </ul>
Assumed Total Household Income	\$50,500 – Calculated by taking 50% of median total household income (\$101,000)	\$101,000 – Median income was selected as it more accurately represents the earning level	\$202,000 – Double the median household income to reflect relevant earnings
Sampled Property Value	\$142,000	\$433,000	\$1,704,000
Solid Waste Levy Paid (residential tax rate from District By-law 2024-11 * sampled property value)	\$108.76	\$331.63	\$1,305.09
<b>Percentage of Household Income Spent on Solid Waste Services (i.e., Solid Waste Levy paid) per annum</b>	<b>0.22%</b>	<b>0.33%</b>	<b>0.65%</b>

# Residential Archetypes Cost Impact – PAYT Model

In order to showcase cost differences between two separate solid waste funding models for the three archetypes previously outlined, this scenario assumes a full transition to a PAYT model.

	Archetype 1	Archetype 2	Archetype 3
<b>Assumptions</b>			
Household Descriptor (All archetypes are assumed to reside in the same Area Municipality)	<ul style="list-style-type: none"> <li>– Lives in-town                             <ul style="list-style-type: none"> <li>○ Low-Income Family</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– First-time home buyer                             <ul style="list-style-type: none"> <li>○ Middle-Income Family</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– Cottage-owner                             <ul style="list-style-type: none"> <li>○ Second home township resident</li> </ul> </li> </ul>
Assumed Total Household Income	\$50,500 <ul style="list-style-type: none"> <li>– Calculated by taking 50% of median total household income (\$101,000)</li> </ul>	\$101,000 <ul style="list-style-type: none"> <li>– Median income was selected as it more accurately represents the earning level</li> </ul>	\$202,000 <ul style="list-style-type: none"> <li>– Double the median household income to reflect higher earnings</li> </ul>
PAYT Model – Total cost of bag tags purchased	\$416.00 <ul style="list-style-type: none"> <li>– Residents with green bin organics curbside receive 1 bag weekly                             <ul style="list-style-type: none"> <li>○ 52 bag tags at a cost of \$8 per tag</li> </ul> </li> </ul>	\$416.00 <ul style="list-style-type: none"> <li>– Residents with green bin organics curbside receive 1 bag weekly                             <ul style="list-style-type: none"> <li>○ 52 bag tags at a cost of \$8 per tag</li> </ul> </li> </ul>	\$208.00 <ul style="list-style-type: none"> <li>– Only resides in the District for half the year (i.e., 26 weeks)                             <ul style="list-style-type: none"> <li>○ 26 bag tags at a cost of \$8 per tag</li> </ul> </li> </ul>
Percentage of Household Income Spent on Solid Waste Services (i.e., PAYT Model) per annum	0.82%	0.41%	0.10%
<b>Percentage difference between Status Quo (Solid Waste Levy) vs complete transition to PAYT</b>	<b>+0.6%</b>	<b>+0.08%</b>	<b>-0.55%</b>

# Next Steps



## Develop an Evaluation Framework

- Develop a structured framework to evaluate and rank the potential funding strategies and additional revenue streams.



## Engage with Key Stakeholders

- Collaborate with the District and Dillon to validate and refine the evaluation framework, ensuring alignment.
  - Leverage this engagement to inform and identify recommendations that will support the SWMP.



## Develop a Financial Plan

- Building on the final set of recommended options and the analysis completed to date, a financial plan will be developed to support the District in financing the costs associated with the SWMP.

# Appendix A – 2024 Solid Waste Levy Distribution

Tax rates vary by municipality and are updated annually through the District's budget and a dedicated by-law.

Municipality	Curbside Units (#)	Curbside (\$)	Non-curbside (\$)	All Units (#)	Disposal /Diversion (\$)	Total (\$)	Cost per Unit (\$)
Bracebridge	7,768	1,718,585	418,464	13,695	942,687	3,079,735	224.88
Gravenhurst	6,845	1,514,381	338,691	12,720	875,573	2,728,646	214.52
Huntsville	10,195	2,255,532	152,654	16,698	1,149,396	3,557,583	213.05
Georgian Bay	1,917	424,115	1,202,366	9,019	620,817	2,247,299	249.17
Lake of Bays	N/A	N/A	501,225	8,092	557,008	1,058,233	130.78
Muskoka Lakes	7,668	1,696,461	284,658	15,541	1,069,755	3,050,874	196.31
<b>2024 Total</b>	<b>34,393</b>	<b>7,609,074</b>	<b>2,898,059</b>	<b>75,765</b>	<b>5,215,236</b>	<b>15,722,369</b>	<b>207.51</b>



# Council Input

## Phase 2 – Level of Ambition



# How We Engaged: Phase 2 (so far)



## In Person Open Houses

Two in person open houses in June, multiple pop-up engagement opportunities, to gather input on the vision for the SWMP and level of ambition.



## Virtual Engagement

One virtual “Lunch and Learn” on Zoom for those who were unable to make it in person, posted on Engage Muskoka.



## Online Survey

An online survey on Engage Muskoka that was open between May and June.

# What We Heard – The Key Themes

Online and in-person we heard that:



Participants most frequently use composting and recycling to reduce the amount of waste they produce



The community vision for the future of waste in Muskoka is one that is convenient and sustainable



In 30 years, most residents want low, or no waste being sent to the landfill



To cut down on waste at the source, single-use packaging items should be avoided



Innovation is viewed as key to the success of the plan



**Solid Waste  
Master Plan**



# Upcoming Engagement

**Pop-up In Person  
Engagement  
Opportunities**

**September 16, 2025**  
Open House @  
Gravenhurst Opera  
House

**September 24,  
2025**  
Virtual Lunch and  
Learn Open House

Plus Social Media Polls, E-Blast, Media Release, Advertising, and an Online Survey







# Questions?



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