

Garbage and Recycling **MASTER PLAN**

Future of Brady Road Landfill



Water and Waste Department

SpeakUpWinnipeg™.com

Introduction

We are creating a Garbage and Recycling Master Plan to present to City Council in fall 2011 that:

- ▶ provides options that together will keep more than 50% of our garbage out of the landfill
- ▶ provides equitable and uniform garbage collection service
- ▶ supports the licensing process for Brady Road Landfill

We want to minimize the amount we put in the landfill by:

- ▶ reducing and reusing instead of throwing away
- ▶ increasing the amount we recycle and recover

Guiding Principles

When identifying options and recommendations for the master plan, we considered, as a priority:

- ▶ benefits to the environment and Brady Road Landfill
 - by keeping valuable resources out of the landfill
 - by reducing harmful effects of garbage in the landfill
- ▶ cost for the community
- ▶ ease and convenience for residents to participate



Our Master Plan

As part of our master plan, we are considering:

- 1.** Curbside recycling collection options
- 2.** Community depots for dropping off materials for reuse
- 3.** Yard waste collection options
- 4.** Curbside organics collection program
- 5.** Garbage collection recommendations
- 6.** Bulky waste service options
- 7.** Green opportunities at Brady Road Landfill

1. Curbside Recycling Collection Options

OPTION 1

Automated collection using blue carts

- ▶ One cart is delivered to each home
 - cost of about \$9 million (\$40 - \$50 per cart)
- ▶ Residents choose the size of the cart (240 or 360 litres)

- Carts:**
- ▶ are at least 3 - 4 times the size of current blue boxes
 - ▶ are easy to roll and extremely durable
 - ▶ are a safer and more efficient system for collectors
 - ▶ help reduce litter and keep the material dry which improves its value when sold
 - ▶ are economical in the long term since higher revenue from more recyclable material will cover the cost of buying the carts

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Curbside Recycling Collection Options (continued)

OPTION 2

Continue with blue box service

- ▶ One blue box is delivered to each home
 - cost of about \$1.2 million (\$7 per box)

- Blue boxes:**
- ▶ are more flexible, so you can use as few or as many as you need to
 - ▶ need less storage space (if you use just one)
 - ▶ cost less to replace than carts
 - ▶ are less effective in the long term because we will not collect as much material as we would by using carts

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2. Community Drop-off Depots

Depots:

- ▶ would accept material from residents that could be recycled or reused (e.g., construction material, bulky waste, yard waste)
- ▶ would cost \$1 - \$2 million each
- ▶ could keep at least 10,000 tonnes out of the landfill each year



3. Yard Waste Collection

Current System

- ▶ 2 curbside collection dates in May and 2 in October for residents in the northwest area serviced by automated garbage cart collection
- ▶ 10 seasonal depots throughout the city



Yard Waste Collection Options

OPTION 1

Biweekly curbside collection

- ▶ every 2 weeks from April to November
- ▶ program cost of about \$15 - \$20 per house per year
- ▶ potential to collect and compost at least 25,000 tonnes per year

OPTION 2

Curbside and expanded depot collection

- ▶ 2 collection dates in spring and 2 in fall
- ▶ more seasonal drop-off depots
- ▶ program cost of about \$6 - \$8 per house per year
- ▶ potential to collect and compost at least 10,000 tonnes per year

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4. Curbside Organics Program

- ▶ The program has the potential to collect and compost at least 41,000 tonnes per year
- ▶ The program would begin only when a new organics composting facility is in place
- ▶ One green cart is delivered to each home
- ▶ Program cost is about \$30 - \$40 per house per year

Carts: ▶ hold between 60 and 240 litres, depending on the size selected for the program

- ▶ are easy to roll and extremely durable
- ▶ are intended only for kitchen organic waste (e.g., fruit and vegetable scraps, coffee grounds)

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5. Garbage Collection

Current System

We collect garbage using 4 different methods...

1. Manual collection in most of the city – no limit to the volume of garbage put out
2. Automated cart collection in the northwest part of the city – volume of garbage limited by cart size
3. AutoBin collection in central and north Winnipeg – shared bins with no limit to the volume of garbage put out
4. Wheelbarrow style carts for 900 homes in parts of the AutoBin area – volume of garbage limited by cart size

Garbage Collection Recommendations

- ▶ Phase out manual, AutoBin and wheelbarrow cart collection
- ▶ Phase in automated garbage cart collection (already in place in the northwest area)
- ▶ Deliver one 240-litre cart to each home
 - cost of about \$7 million (\$40 - \$50 per cart)
- ▶ Offer larger size carts or extra carts to residents for an annual fee

- Carts:**
- ▶ are equal to 3 regular size garbage containers
 - ▶ have large wheels that make them easy to roll, even over curbs, gravel and snow
 - ▶ are made of a durable plastic material, and last about 20 years
 - ▶ are economical in the long term because lower collection costs help balance out the cost of buying the carts



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Reasons to Discontinue AutoBin and Wheelbarrow Collection Service

- ▶ AutoBin and wheelbarrow cart collection service is twice as expensive as other methods of garbage collection
- ▶ AutoBin collection service is becoming obsolete – most cities have eliminated AutoBins because they:
 - encourage unlimited garbage
 - discourage recycling
 - are prone to arson, illegal dumping and graffiti
 - discourage individual responsibility for keeping the area around the bins free of litter
 - make snow removal more difficult



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Advantages of Automated Cart Collection

- ▶ Cost savings in the long term because automated collection is more efficient than manual collection
- ▶ Safer work environment for garbage collectors
- ▶ Standard size container for collection
- ▶ Limited size, encouraging residents to recycle and compost
- ▶ Fewer litter, odour and pest problems because the carts have lids
- ▶ Uniform community look on collection day

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Disadvantages of Automated Cart Collection

- ▶ Initial investment required for cart purchase
- ▶ Unlimited volume of garbage no longer collected
- ▶ A little more effort required to place the cart in a clear spot at the curb/lane in winter
- ▶ Higher replacement cost for carts than traditional garbage cans
- ▶ Limited choice for purchasing carts – available only through the City because each cart has a serial number and an electronic tag so it can be traced to an address

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6. Bulky Waste Service Options

Bulky Waste

- ▶ includes items such as appliances, air conditioners, mattresses, furniture
- ▶ currently has a \$20 collection charge (for up to 6 items) in all areas except the inner city

OPTION 1 Fee for service

- ▶ all users pay (eliminate the inner city “no charge” zone)

OPTION 2 Tax-supported service

- ▶ any resident can request the service at no direct charge
- ▶ cost is supported by all taxpayers

OPTION 3 Discontinue providing collection service

Residents are responsible for hauling their items away, either to a community depot or to the landfill

7. Green Opportunities at Brady Road Landfill

- ▶ Community depot for recycling and reusing material
- ▶ “Green Park” for local industries that would remake the materials on site into reusable items for sale
- ▶ Composting facility that would produce material that could be sold, given to the public, or used on City property



Benefits of the Master Plan to the Brady Road Landfill

Benefits of reducing and reusing instead of throwing away:

- ▶ less long-term care of the landfill
- ▶ less toxic liquid to be captured and treated
- ▶ less greenhouse gas
- ▶ extended lifespan of landfill
- ▶ reduced cost to manage and operate



Amount of Garbage that We Can Reduce

We currently keep only about 17% of our residential garbage out of the landfill (e.g., by recycling, composting).

Over the next 20 years, the Garbage and Recycling Master Plan has the potential to keep more than 50% of our garbage out of the landfill.

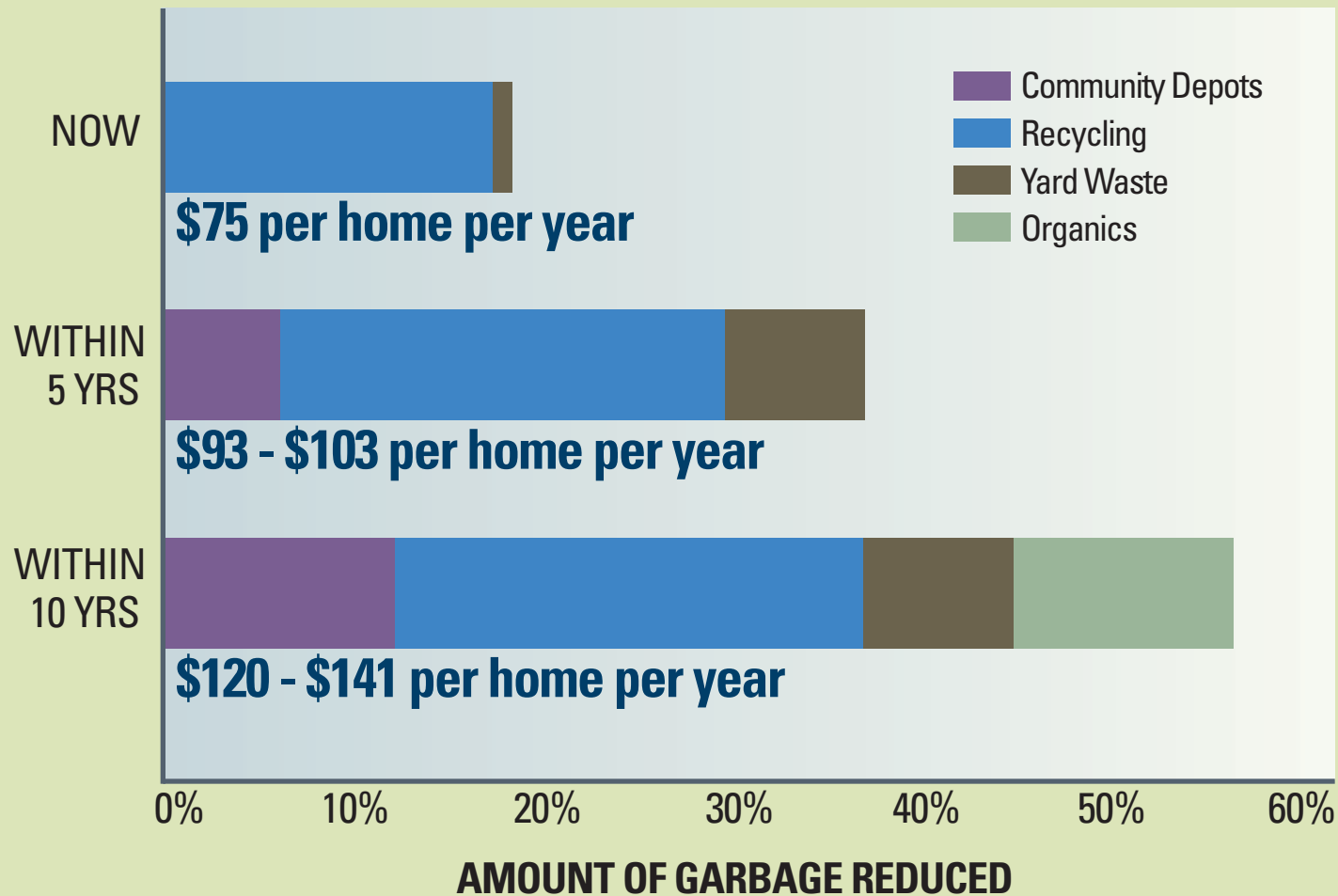
In order to reach this target, we need programs that help us reduce and reuse, such as:

- ▶ community drop-off depots
- ▶ increased recycling services
- ▶ yard waste collection and composting
- ▶ curbside kitchen waste organics



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Cost of Keeping Garbage Out of the Landfill



Estimated Time to Implement the Options

Program	Within 5 years	Within 10 years
Community drop-off depots	X	
Increased recycling services	X	
Automated garbage collection services	X	
Yard waste composting program	X	
Kitchen waste organics program		X