Community Sandbox Program Review: Public Opinion Research Summary

Research conducted by:

ADVANIS

April, 2023

CRIC

Methodology

Collection mode	Target population	Completes	Statistically representative	Purpose	Dates of collection (all dates 2023)
Focus Groups	Edmonton residents responsible for maintaining walkways including newcomers to Canada, users and non-users. A mix of non-users, casual users and regular users of the Community Sandbox Program.	4 focus groups (29 participants)	No	Deeper conversations about use, awareness, future interest.	Jan 10 - 11
Web / Open Link (OL)	Edmonton residents representing diverse perspectives and the general public.	2877 survey responses	No Differences of +/-7% (equivalent margin of error in probability sample with segments of 200)	Reach a large number of residents from diverse demographic groups via online survey. Results of the GBA+ analysis rely upon the Open link sample.	Feb 6 - Mar 7
Phone to Web General Population Random Sample (GPRS)	Edmonton residents responsible for maintaining walkways	810 survey responses	Yes margin of error ±3.4% Statistical testing at 95% confidence interval	Representative sample of Edmontonians within the target population via telephone invite to online survey. Soft quotas were set by age (18-34, 35-54 years, and 55 years or older), gender, and location (NW, SW, NE, SE, Central). GPRS results are used when presenting aggregate data.	Feb 9 - Mar 6

Methodology: Open Link vs. GPRS

Open link survey

The City placed posters on existing sandboxes with a QR code link that directed residents to the web page and survey. The City also shared this link on their website, through the Edmonton Insight Community and on social media. This survey was open to all Edmontonians aged 18+ years.

In this report, results of the GBA+ analysis rely upon the Open link sample.

Share Your Perspectives

on the City's Community Sandbox Program – we want to hear from you!

Find out more at edmonton.ca/CommunitySandboxes

SAND BOX

GPRS

General Population Random Sampling (GPRS): Survey completes were collected via a telephone recruit to the same online survey the open link respondents saw using Advanis' proprietary GPRS approach. This approach ensured that a representative proportion of respondents in the target population were surveyed.

Soft quotas were set by age (18-34, 35-54 years, and 55 years or older), gender, and location (NW, SW, NE, SE, Central).

In this report, GPRS results are used when presenting aggregate data.

Larger differences between segments are highlighted in the report using these markings. A 7% difference was selected as this is the equivalent of the margin of error in a probability sample with segments of 200.

At least 7% lower than aggregate responses

At least 7% higher than aggregate responses

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Methodology: Considerations for Diversity and Inclusive Analysis

Gender-Based Analysis Plus (GBA+)

Analysis was used to actively consider the many identity and intersectional factors relevant to the Community Sandbox Program and its users. This analysis was used to plan, implement and analyze data from public engagement activities to ensure that:

- Administration is hearing from diverse communities and populations across Edmonton
- That these thoughts and perspectives are being understood and considered with consideration of intersectionality, socioeconomic and demographic segments.
- That feedback will be used to inform recommendations and provide equitable, inclusive programs and services

Social vulnerability

The circumstances of a person or community that affects their capacity to demand or use a service or program or adapt to the effects of a change. To ensure that an equity[1] lens was applied in understanding and interpreting feedback on the program, an SVI[2] tool was used in reviewing and analyzing collected feedback.

Community sandboxes are closely tied to the topics of accessibility and safe mobility. A key component of public engagement for the Community Sandbox Program was to consider and hear from those who may strongly rely on the program and walkability, who may be more vulnerable to injury as a result of icy sidewalks and who may be disproportionately impacted by any future program changes.

[1]*Equity:* Where everyone is treated according to their diverse needs in a way that enables all people to participate, perform and engage to the same extent. This is different from *equality*, where everyone is treated the same regardless of individual diversity and needs (Canadian Centre for Diversity and Inclusion, 2022.) Minority ethnocultural and racial groups, immigrants/newcomers, women, seniors, children, as well as persons with disabilities, are among those who have been identified as particularly vulnerable to the impacts of *inequity*.

[2]*Social Vulnerability Index (SVI)* tool was developed and used by the City of Edmonton's Sidewalk Maintenance Strategy project. The SVI takes into consideration 11 socioeconomic and demographic metrics to proactively identify areas of Edmonton with the highest needs for services and programs and can be used to inform projects, services and programs to ensure equity and inclusion for all.

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Key Findings

- **7 in 10** resident survey respondents are **aware** of the Community Sandbox Program.

- **3 in 10** respondents currently **use** the program. Among current users, half said that it is their main source of winter traction materials.

- Only 55% of respondents said their nearest sandbox has sand available all or most of the time. **Lack of availability of sand** in a community sandbox is the **number one barrier for non-users**.

- Increasing awareness of community sandboxes may increase usage. When informed about the program, **8 in 10** residents surveyed said they **would use** community sand as a primary or secondary traction material **in the future**.

Key Findings– The Proposed Options

Community Sandbox Option Preferences

- **Option 3** (Status Quo with Redistribution) was the **most preferred** option among survey respondents (35% preferred it most, and 61% rate this as their first or second choice).

- **Option 2** (Reduce and Centralize) was **second most preferred** (29% first, and 46% first or second choice). However if it were chosen, support for Option 2 is the highest among the four options.

- **Option 1** (Discontinue) was the **least preferred option**, with only 15% preference and 58% opposed to this option.

- **Option 4** has equal numbers of supporters and detractors - and 34% who preferred it first or second.

GBA+ Considerations

- **Option 3**
  - Higher preference: household (HH) incomes less than $20K, aged 75+, homemakers, primary transportation mode is by car;
  - Lower preference: new Canadians, HH incomes of $125K-$149K.

- **Option 2**
  - Higher preference: identify as LGBTQ2S+, primary transportation is by bicycle;
  - Lower preference: aged 75+ years, homemakers, unemployed, primary mode of transportation is car or walking.

- **Option 1**
  - Higher preference: new Canadians, HH incomes of $125-$149k;
  - Lower preference: aged 75+ years, primary transportation method is bicycle.

- **Option 4**
  - Higher preference: those who rent, those who rely on public transit

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Community Sandbox Program Awareness and Usage

GPRS

Materials Used

- Salt / Ice Melt: 76%
- Sand: 47%
- Gravel: 18%
- Kitty Litter: 6%
- Ash: 1%
- Fertilizer: 1%
- Other: 1%
- Nothing: 9%

Where sand is obtained

We purchase from a store	60%
We pick it up from a community sandbox	60%
The individual performing sidewalk maintenance supplies their own	2%
We purchase from a supplier who delivers it to our home	1%
Other	4%
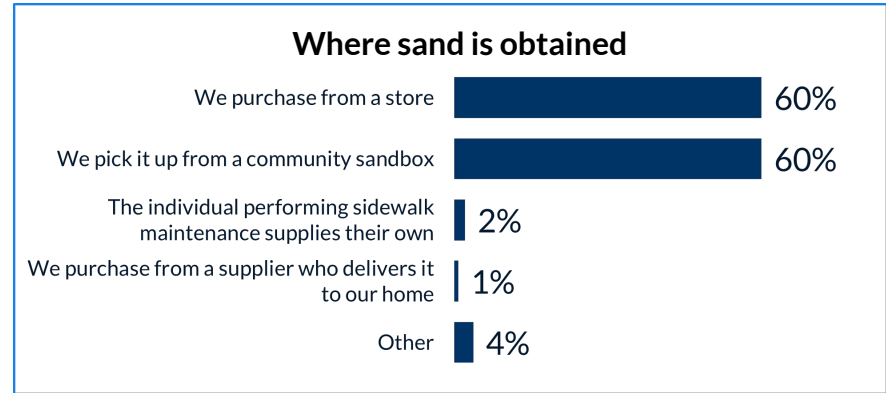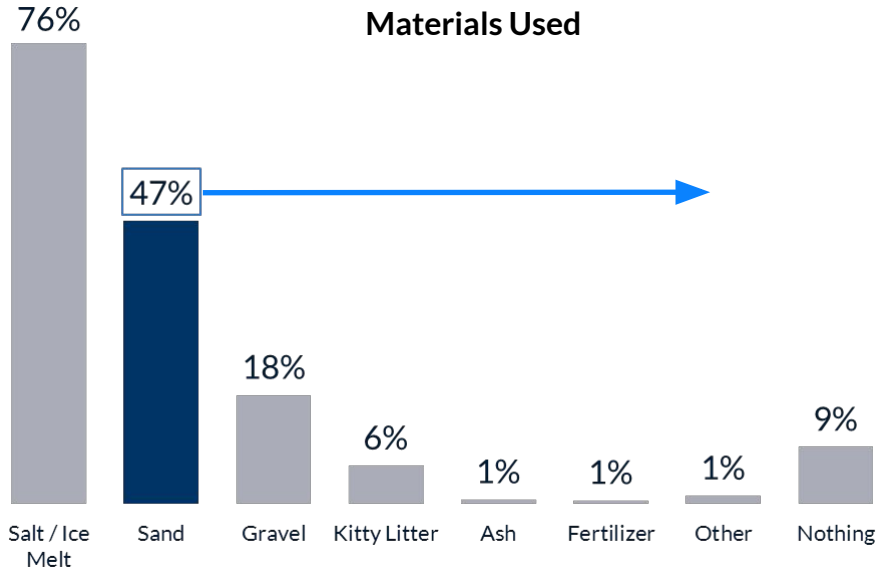
GBA+
- Household with a person with medical condition is more likely to use sand/ice melt
- Persons who are Indigenous, who are neurodiverse, are more likely to obtain sand from community sandbox

Why would you NOT use community sandboxes (sample responses)

"Sand is too messy to use as it tracks into the buildings where it is used and it is difficult to clean from sidewalks in spring." (resident verbatim)

"I have ice that forms in front of my house. I need the ice melt to make sure it melts it. Sand gets tracked into the house" (resident verbatim)

b4a. Do you use any of the following materials on your sidewalk or driveway? Base: Total (n=810);
b5. How does your household obtain the sand used for winter sidewalk maintenance? Base: Uses sand (n=377);
c2. Why would you NOT use community sandboxes? Base: Will not use sand (n=130);

Awareness of Community Sandbox Program

69%

Total Awareness

=

Uses community sand (30%) +
Aware of program, no longer uses (9%) +
Aware of program, has not used (30%)

Total Awareness by Area of the City

66%   67%

80%

67%   68%

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Awareness. Which of the following statements applies to you? Base: Total (n=810);

GPRS
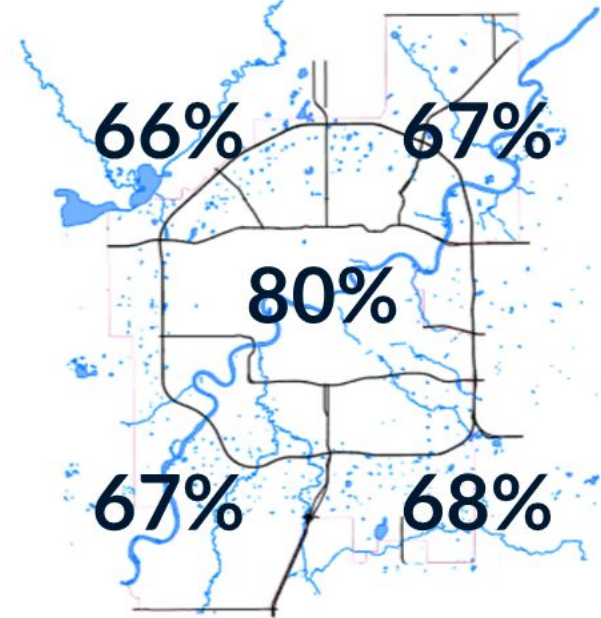
30%

Current Program Usage

Total Usage by Area of the City

28%   35%

43%

20%   30%

GBA+

- Persons who identify as LGBTQ2S+ are less likely to use
- Those who support a person with a disability (parent/guardian/caregiver) and persons with mobility challenges (in household) are more likely to use

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Sand Availability [Current / Past Users]

13%	42%	26%	15%	4%

■ Always ■ Most of the time ■ Some of the time ■ Rarely ■ Never

55%

Say sand is available all or most of the time

Respondents from the Central area (67%) reported the highest availability of sand.

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d1. From your experience, was there sand available when you visited the community sandbox....? Base: Has used sandbox (n=300);

- **60%** of Community Sandbox **users** say it is their **main source** of winter traction materials, with **70%** visiting a Community Sandbox **more than three times per year**.

- **More than half** (56%) of residents surveyed say that they have **a community sandbox within 5 minutes** of their residence*. For respondents in the Southwest, this percentage is lower (46%). In the Central region it is higher (68%)

- **87%** of respondents would use **a personal vehicle** to collect sand from a Community Sandbox.
    - **93% are willing to travel up to 10 minutes**; 48% are willing to travel up to 5 minutes

*Using their primary mode of transportation

Program User Experience: Challenges for Current Users

Top Challenges Faced

81% have had a challenge
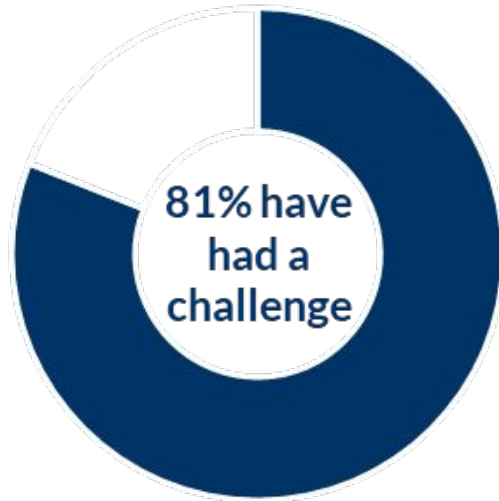
Current Users:
- Chance that there won't be enough sand
- Box is always empty
- Sand gets frozen if lid is left open

Past Users:
- Boxes were often empty
- Filling a container / bringing sand home is inconvenient
- I'm not prepared to take a chance that the sandbox will be empty when I need it

Aware but never used:
- Filling a container / bringing sand home is inconvenient
- No guarantee that there will be enough sand
- I do not use sand

GBA+
Groups more likely to have had challenges:
- Persons who are Indigenous; have mobility challenges; who walk with a stroller, wagon or small children

d3. Which, if any, of the following have been challenges or barriers to you using the community sandbox program? Base: Has used and had challenges (n=253);

Potential Usage of Community Sandboxes

After being provided with a complete description of the Community Sandbox Program, **82% of respondents said they would use the program**. This was equally split between those who would use it as their primary and secondary source of traction material.

Why use community sand?
- Free sand material / to save money
- Convenient locations to collect sand
- Prefered option would ensure sandboxes are refilled more often

Why use as secondary source / not use?
- Sand is not as effective as other materials
- Filling a container and bringing sand home is inconvenient (or too far)
- Sand is not as effective as other traction materials
- No guarantee that sandbox will be full when I need it
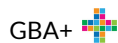
GBA+
- Persons who identify as LGBTQ2S+ are less likely to use as a primary source

c1. Now that you have learned about the program, and assuming that there is a sandbox conveniently located to you, would you… Base: Total (n=810);

Public Preferences and Support: Four Possible Options Being Considered for Program Changes

Option 1: Discontinue Community Sandboxes

- Phase out removal of most boxes over 1-2 seasons.
- Sand available in larger boxes or bins at Eco Stations and Roadway Maintenance Yards for pickup.
- Up to 8 sandbox locations.
- **Benefits**: Fewer, larger boxes means better monitoring and faster refilling. Fewer refills would be needed for large bins.
- **Tradeoff**: Need to travel further to get free sand or need to purchase sand.
- **Program Cost Impacts**: $900K savings, which would be used to support and improve other Snow and Ice Control services.
- No direct cost impacts to residents.

LEGEND
- Sandboxes
- 2.5km Distance, Approx. 5-6 min drive time
- Industrial Neighbourhood
- City Boundary

City of Edmonton, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, USDA, NRCan, Parks Canada

Option 1
Reduce Sandboxes to Maintenance
Yards and Eco Stations (8 Boxes)

Kilometers
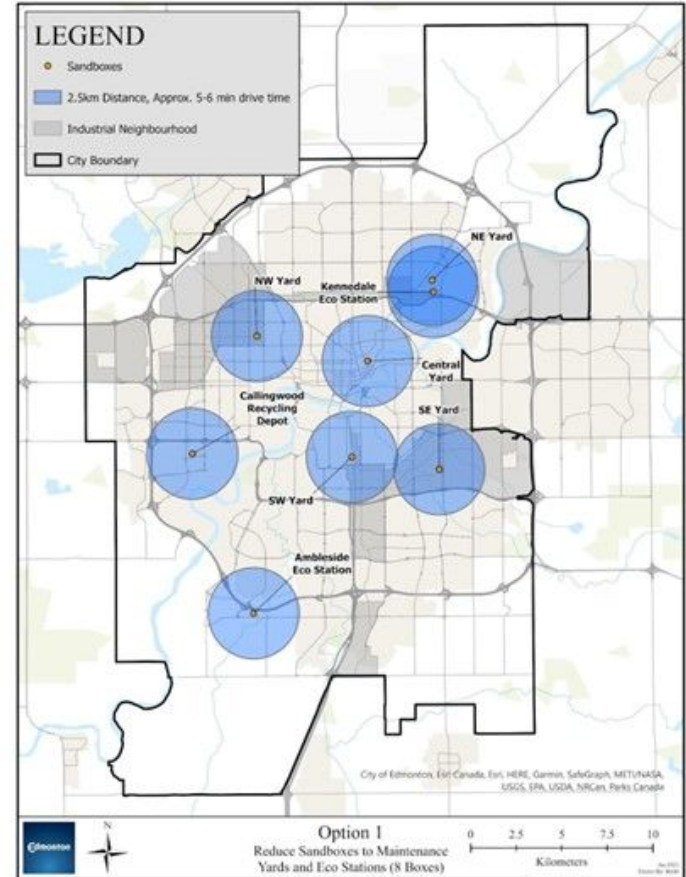
Option 2: Reduce and Centralize Sandboxes

- Reduce the number of boxes.
- Redistribute boxes more evenly to provide better city coverage (*approx 5-10 min drive to a box for most residents.*)
- Between 30-100 sandboxes.
- **Benefits**: Fewer and larger boxes means better monitoring and faster refilling. Sandboxes would be moved closer to areas currently without a nearby box.
- **Tradeoff**: Fewer boxes within walking/driving distance for areas that currently have a large number of boxes. Need to travel further to get sand or need to purchase sand.
- **Program Cost Impacts**: $800K savings, which would be used to support and improve other Snow and Ice Control services.
- No direct cost impacts to residents

Sandbox Option 2B
Reduce and Centralize
Sandboxes (100 Boxes)
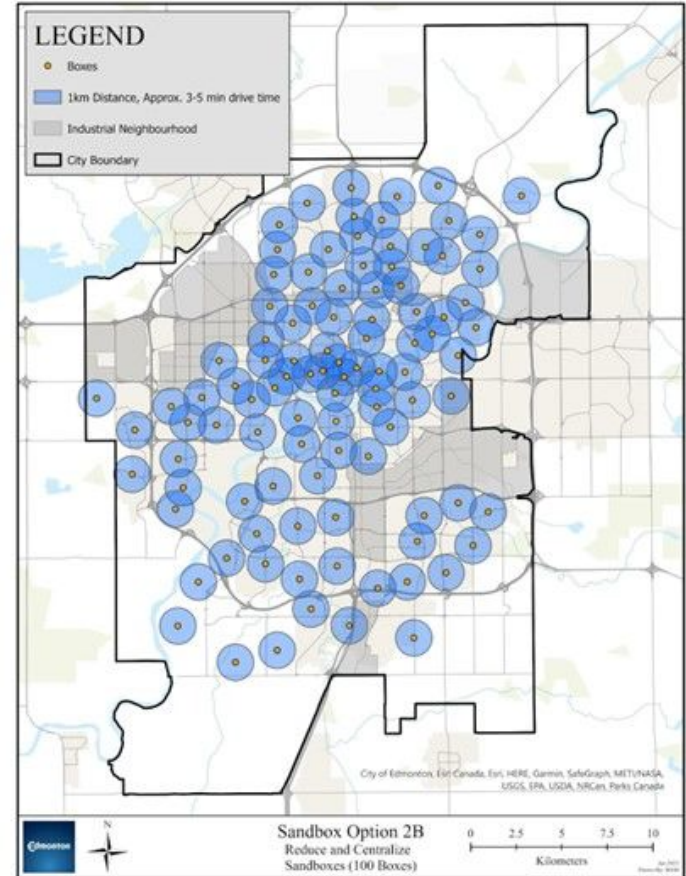
Option 3: Status Quo (maintain Sandboxes)

- Keep the current number of boxes.
- Redistribute some boxes more evenly to provide better city coverage (*approx 3-5 min drive to a box for most residents.*)
- Approximately 700 sandboxes.
- **Benefits**: Better and more even distribution of boxes. Option could include faster refilling if service levels change.
- **Tradeoff**: Current concerns with boxes not being refilled quickly may continue.
- **Program Cost Impacts**: No savings. Shorter refill timelines would add to program cost (eg, up to $58K for 3 fewer days.)
- Cost impacts to residents: Up to $0.09/year increase in property taxes.*

This is only an estimate based on 2023 property tax assessment and median current property values (Average of $2,900 on a $400K residential property).

Sandbox Option 3B
Status Quo with Redistributed
Sandboxes (797 Boxes)
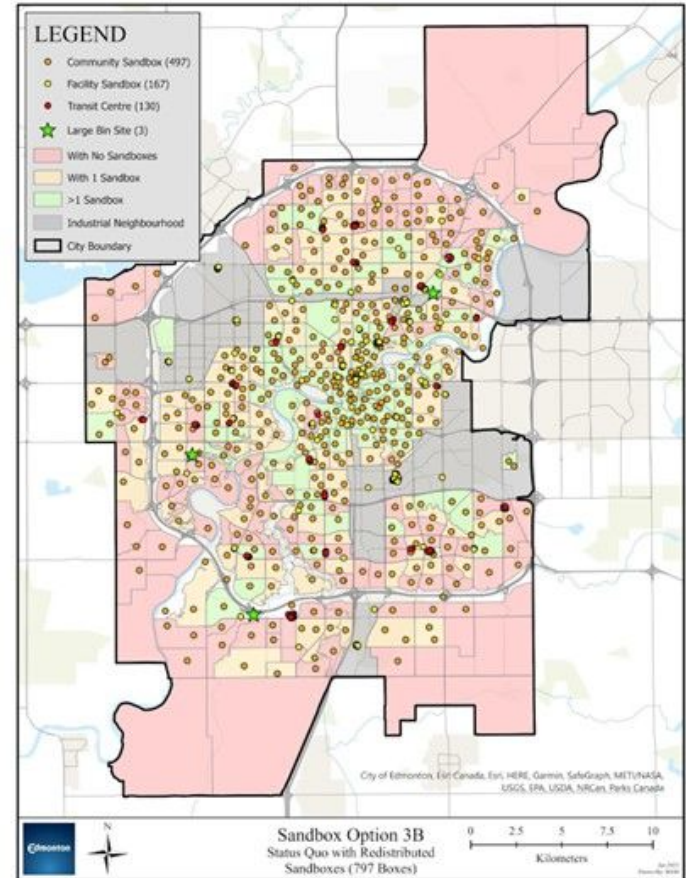
Option 4: Increase Sandboxes

- Retain current box numbers and locations.
- Add more boxes over 1-2 seasons to ensure newer neighbourhoods have at least one box nearby (approx 3-5 min drive to a box for most residents.)
- Approximately 900 sandboxes.
- **Benefits**: Better and more even distribution of boxes. Option could include faster refilling if service levels change.
- **Tradeoff**: Current concerns with boxes not being refilled quickly may continue or increase with the increased number of boxes.
- **Program Costs Impacts**: Increase of $235K for 200 more boxes. Shorter refill timelines would further increase program cost (eg, up to $308K for 3 fewer days.)
- Cost impacts to residents: Up to $0.50/year increase in property taxes.*

This is only an estimate based on 2023 property tax assessment and median current property values (Average of $2,900 on a $400K residential property).

LEGEND

- New Box (150)
- Community Sandbox (497)
- Facility Sandbox (167)
- Transit Centre (130)
- Large Bin Site (3)
- With No Sandboxes
- With 1 Sandbox
- >1 Sandbox
- Industrial Neighbourhood
- City Boundary

City of Edmonton, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, USDA, NRCan, Parks Canada

Sandbox Option 4
Increase Number
of Sandboxes (947 Boxes)

0   2.5   5   7.5   10
Kilometers
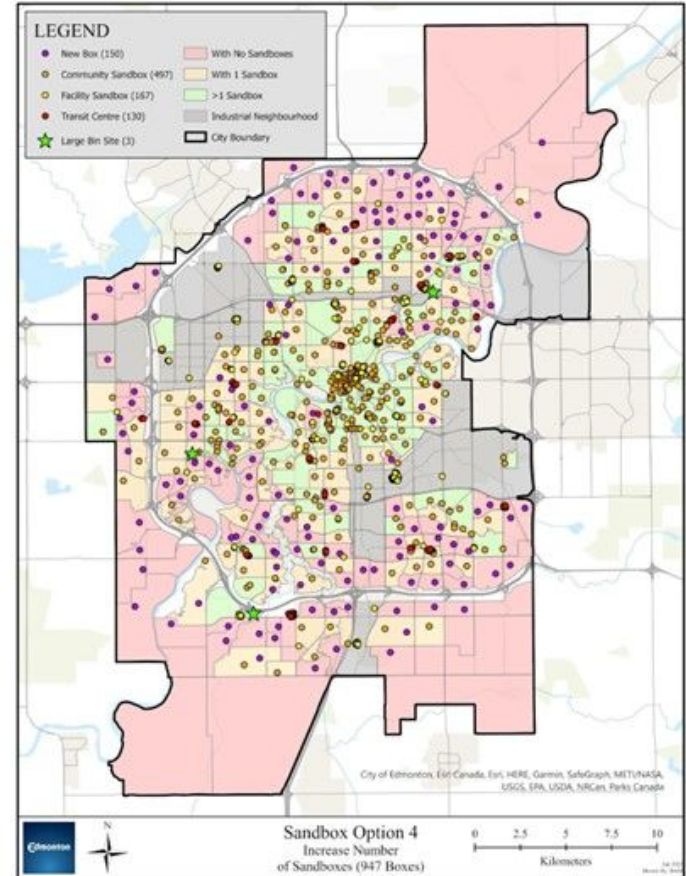
Evaluation Metrics: Support and Preference

Respondents were asked to evaluate the four options presented in two different ways:

Preference

You just reviewed four options for possible changes to the Community Sandbox Program.

Thinking about what would be best for you, please select your most preferred choice, and then rank the remaining choices in order of preference with 1 = most preferred and 4 = least preferred.

- ❏ 1st preference
- ❏ 2nd preference
- ❏ 3rd preference
- ❏ 4th preference
- ❏ Did not rank

Support

Thinking about what would be best for you, to what extent would you support Option #?

- ❏ Strongly support
- ❏ Somewhat support
- ❏ Neutral
- ❏ Somewhat oppose
- ❏ Strongly oppose

Note that because each option is rating independently, respondents could show equal levels of support to multiple options.

Preference for Options: By Ranking

Ranked preference for each option

Sum of 1st and 2nd Ranking

Preference for Option 1				
15%	8%	10%	35%	32%

23%

Preference for Option 2				
29%	17%	23%	2%	29%

45%

Preference for Option 3				
35%	26%	14%	2%	23%

61%

Preference for Option 4				
22%	13%	13%	21%	31%

34%

■ 1st   ■ 2nd   ■ 3rd   ■ 4th   □ Did not rank

Respondents could leave any option that they did not wish to rank Unranked

f1. Please select your most preferred choice, and then rank the remaining choices in order of preference with 1 = most preferred and 4 = least preferred? Base: Total Who Expressed a Preference (n=724); Responses are rounded in the charts.

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Support for Four Possible Options
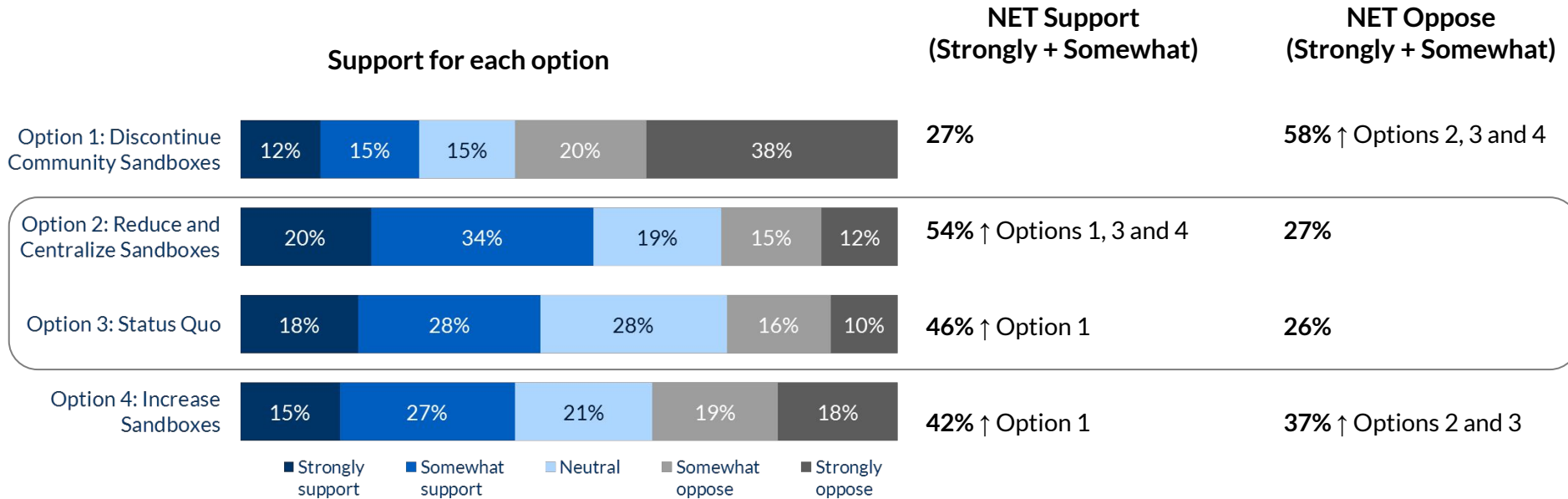
Support for each option

	NET Support (Strongly + Somewhat)	NET Oppose (Strongly + Somewhat)
Option 1: Discontinue Community Sandboxes	12% 15% 15% 20% 38%	**27%**	**58%** ↑ Options 2, 3 and 4
Option 2: Reduce and Centralize Sandboxes	20% 34% 19% 15% 12%	**54%** ↑ Options 1, 3 and 4	**27%**
Option 3: Status Quo	18% 28% 28% 16% 10%	**46%** ↑ Option 1	**26%**
Option 4: Increase Sandboxes	15% 27% 21% 19% 18%	**42%** ↑ Option 1	**37%** ↑ Options 2 and 3

■ Strongly support ■ Somewhat support ■ Neutral ■ Somewhat oppose ■ Strongly oppose

↑Statistically different at a 95% confidence level (McNemar test for proportions with paired samples).
E1b, E2b, E3b, E4b. Thinking about what would be best for you, to what extent would you support each option X? Base: Total (n=780-785);

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Summary: Option 1 Discontinue

Preference for Option 1

| 15% | 8% | 10% | 35% | 32% |

■ 1st ■ 2nd ■ 3rd ■ 4th ☐ Did not rank

1 = most preferred and 4 = least preferred. Respondents could leave any option that they did not wish to rank Unranked
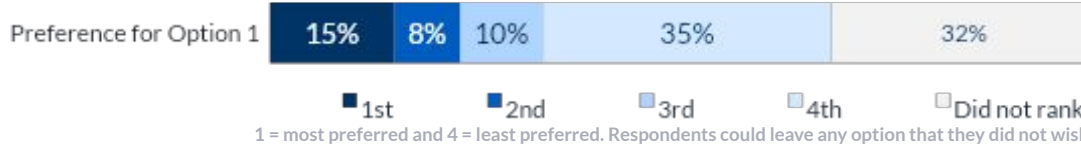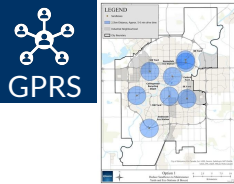
| Net Support: 27% ↓ Options 2, 3 and 4
| Net Oppose: 58% ↑ Options 2, 3, and 4
(Strongly + somewhat)

Sample responses (Why is this your preferred option?)
"The savings that can be allocated to other ways to manage winters."

"Boxes are not big enough for everybody in neighbourhood, so people buy their own sand/salt anyways. There is no need for this program at all."

"Property taxes are too high. Its a service only a few uses. It's time to cut property taxes. Homeowners are having hard time paying their bills."

Groups with higher preference of Option 1	
Immigrant or new Canadian (n=116)	25%
A person with a speech and language impairment/disorder (or HH Member) (n=36)	27%
Household income: $125,000 - $149,999 (n=207)	24%
Resident of Canada 10-19 years (n=59)	27%

Groups with lower preference of Option 1	
A neurodiverse person (or HH member) (n=207)	8%
Household income: $20,000 to $29,999 (n=71)	9%
Age: 75+ (n=156)	8%
Employment: Homemaker (n=70)	4%
Primary Transportation: Bicycle (n=66)	7%

At least 7% lower than aggregate responses

At least 7% higher than aggregate responses

If a community is not listed here, their support of this option was within +/- 7% of aggregate responses.
↑↓ Statistically different at a 95% confidence level (McNemar test for proportions with paired samples).

F1. Please select your most preferred choice, and then rank the remaining choices in order of preference with 1 = most preferred and 4 = least preferred? Base: Total Who Expressed a Preference (n=724)
E1. Thinking about what would be best for you, to what extent would you support Option 1? Base: Total (n=785)

Summary: Option 2 Reduce and Centralize

Option 2: Reduce & Centralize	29%	17%	23%	2%	29%

■1st ■2nd ☐3rd ☐4th ☐Did not rank

| Net Support: 54%↑ Options 1, 3 and, 4
| Net Oppose: 27% ↓ Options 1 and 4
(Strongly + somewhat)

Sample responses (Why is this your preferred option?)

"There have been times where my community sandbox has been empty. This sounds like the most reasonable compromise."

"Cost savings while still offering reasonable accessibility to the program."

"I feel like this option may still be accessible enough for the majority of people and may help to reduce costs while ensuring we have sand to access more regularly."

Groups with higher preference of Option 2	
LGBTQ2S+ person (n=221)	38%
A person with a psychiatric disability (n=118)	37%
A person who is visually impaired or has low vision (n=88)	36%
Primary Transportation: Bicycle (n=66)	33%

Groups with lower preference of Option 2	
Age: 75+ (n=156)	17%
Employment: Homemaker (n=70)	17%
Unemployed (n=52)	18%
Primary Transportation: Vehicle Passenger (n=185)	17%
Primary Transportation: Walking (n=160)	16%

If a community is not listed here, their support of this option was within +/- 7% of aggregate responses.
↑↓ Statistically different at a 95% confidence level (McNemar test for proportions with paired samples).

At least 7% lower than aggregate responses

At least 7% higher than aggregate responses

F1. Please select your most preferred choice, and then rank the remaining choices in order of preference with 1 = most preferred and 4 = least preferred? Base: Total Who Expressed a Preference (n=724)
E1. Thinking about what would be best for you, to what extent would you support Option 2? Base: Total (n=785)

Summary: Option 3 Status Quo

| Option 3: Status Quo | 35% | 26% | 14% | 2% | 23% |

■1st ■2nd ■3rd ☐4th ☐Did not rank
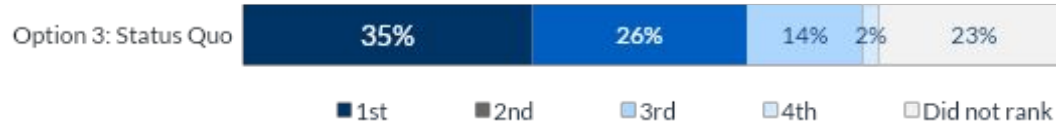
| Net Support: 46%↑ Options 1 ↓Option 2
| Net Oppose: 26% ↓ Options 1 and 4
(Strongly + somewhat)

Sample responses (Why is this your preferred option?)

"I think having boxes reasonably close at hand will encourage citizens to maintain walks."

"Truthfully the sand is available in my neighbourhood most of the time and is easy to access. I appreciate that!"

"Better promote the existing program as I am confident most Edmontonians have no idea of its existence."

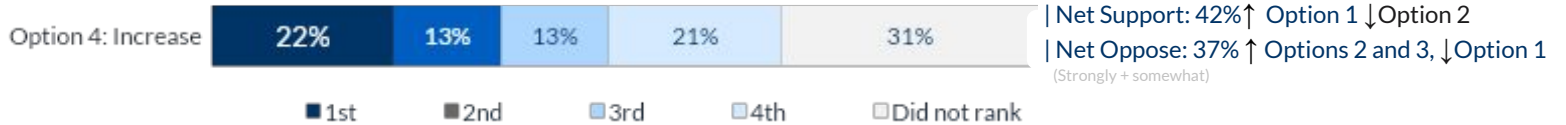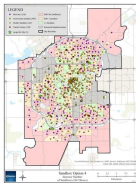| Groups with higher preference of Option 3	
Household income: Under $20,000 (n=44)	55%
Employment: Homemaker (n=70)	75%
Age: 75+ (n=156)	59%
Primary Transportation: Vehicle Passenger (n=185)	56%

Groups with lower preference of Option 3	
Household income: $125,000 - $149,999 (n=207)	37%
Immigrant or new Canadian (n=116)	35%
A person with a speech and language impairment/disorder (n=36)	31%

If a community is not listed here, their support of this option was within +/- 7% of aggregate responses.
↑↓ Statistically different at a 95% confidence level (McNemar test for proportions with paired samples).

At least 7% lower than aggregate responses

At least 7% higher than aggregate responses

F1. Please select your most preferred choice, and then rank the remaining choices in order of preference with 1 = most preferred and 4 = least preferred? Base: Total Who Expressed a Preference (n=724)
E1. Thinking about what would be best for you, to what extent would you support Option 3? Base: Total (n=785)

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Summary: Option 4 Increase Sandboxes

Option 4: Increase	22%	13%	13%	21%	31%

■ 1st ■ 2nd ☐ 3rd ☐ 4th ☐ Did not rank

| Net Support: 42% ↑ Option 1 ↓ Option 2
| Net Oppose: 37% ↑ Options 2 and 3, ↓ Option 1
(Strongly + somewhat)

Sample responses (Why is this your preferred option?)

"Improved access for those who may not easily have access to a vehicle."

"Every neighborhood should have a sand box. Considering the taxes that homeowners pay."

"As the demographics of communities are changing with zoning, neighbourhoods now have mixed population of low income, seniors, etc. They quite often do not have resources to afford to purchase ice melting products and require alternatives close to where they reside."

Groups with higher preference of Option 4	
Primary Transportation: Public Transit (n=116)	22%
Renters (n=235)	19%

If a community is not listed here, their support of this option was within +/- 7% of aggregate responses.
↑↓ Statistically different at a 95% confidence level (McNemar test for proportions with paired samples).

At least 7% lower than aggregate responses

At least 7% higher than aggregate responses

F1. Please select your most preferred choice, and then rank the remaining choices in order of preference with 1 = most preferred and 4 = least preferred? Base: Total Who Expressed a Preference (n=724)
E1. Thinking about what would be best for you, to what extent would you support Option 3? Base: Total (n=785)

Additional Information: Community Sandbox Program

The Community Sandbox Program provides free dry sand (no salt) at designated community sandbox locations, as well as roadway maintenance yards, throughout winter to use on icy sidewalks and pathways. Sandboxes are located at many City facilities including recreation centres, libraries, maintenance yards, transit locations and more than 150 Community League locations.

City crews are responsible for refilling more than 700 boxes as a courtesy service, after clearing and maintaining Active Pathways during and after snow events. These same crews also clear sidewalks around City facilities, shared use paths, transit centres and bus stops, wheelchair ramps, staircases and more.

Property owners, including residents and businesses, are responsible for ensuring that sidewalks on and beside their properties are maintained all winter, to keep walkways safe and accessible for everyone. The purpose of this program is to provide convenient access to sand to use on icy sidewalks and walkways.

If you'd like to learn more, this link will open in a new tab:
edmonton.ca/communitysandboxes

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Principal Consultant

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