Central Manitoulin Carbon Budget

Summary

As part of the municipality's ongoing response to climate change, the Municipality of Central Manitoulin used a carbon emission simulation exercise, powered by Ethelo, to gather public feedback. The purpose of this exercise is to give residents a say in proposing solutions that are fair and effective, and maximize community buy-in to the Community Energy and Emissions Plan (CEEP) that is currently under construction for Council's consideration and adoption. The survey also educated respondents on aspects of response and proposed solutions from other municipalities engaged in similar climate change planning processes.

2020 was challenging for everyone in our community – COVID 19 forced us all to rethink various aspects of our lives. The Municipality of Central Manitoulin has not skipped a beat and despite challenges, forged into 2021 by adjusting our community engagement strategy. Instead of hosting in-person events for climate change consultation, we conducted an in-depth educational and action-oriented online survey. Initially, the idea of conducting a climate change survey online received mixed support – committee members and municipal staff expressed concern over not being able to reach everyone in our district by taking this non-traditional online engagement approach.

Despite legitimate concerns about our ability to reach and engage residents through this method, participation results ultimately exceeded expectations with 245 respondents or approximately 12% of our population weighing in on climate action. While some skeptics may point out that this participation rate is less than half of the population, in the world of public engagement surveys and statistics, response from 12% of the total sample available is solid achievement. Ultimately, consideration must be paid to our sample size and tolerance for inaccuracy. The goal of any comprehensive public engagement survey is to achieve useful information while maintaining the lowest margin of error possible – where a +/-3% margin of error is generally accepted as excellent – and we are pleased to report that our survey results were within this margin.

Summary

Community-wide Support for a 50% reduction in GHG emissions by 2030

When it came to the voting sections of the engagement, participants were asked to indicate how large a Greenhouse Gas (GHG) reduction they thought the community should strive towards, on the topics of Homes & Buildings, Transportation, and Waste Reduction. Participants were asked to vote using a sliding scale of 0% to 100% GHG reduction in each of these areas, while also ensuring their ideal plans hit our overall GHG reduction target and were easy enough to implement over the next 10 years. These votes exist as the basis for the GHG reduction targets outlined in the CEEP, and below:

- 50% Energy Efficiency Upgrades - 8,001 tonnes GHG reduction by 2030
- 50% Municipal Building Efficiency Upgrades - 77 tonnes GHG reduced by 2030
- 25% Gas-Powered Personal Vehicles replaced by Electric Vehicles - 2,130 tonnes GHG reduction by 2030
- 50% Gas-Powered Municipal Vehicles replaced by Electric Vehicles - 117 tonnes GHG reduction by 2030
- 50% Increase in Composting - 711 tonnes GHG reduction by 2030

Overall GHG Reduction by 2030 - 11,036 tonnes GHGs

GHGs The scenario outlined above was identified by the survey algorithm as being the most broadly supported plan, which includes an overall GHG reduction target that surpasses the community's goals and has a difficulty score low enough to make this a plausible plan. This scenario has a predicted overall support of 100%, meaning that this plan has a high likelihood of success, and includes components that every single voter can get behind.

Summary

How can something be supported and have a rate of conflict?

In addition to finding areas of consensus, the survey algorithm also considered every participant vote and used this data to identify areas of polarization, which can generally be communicated as the rate of potential conflict in attempting to implement climate actions. Key findings related to the concept of conflict include the reality that the greatest polarization exists around the community's composting goals. However, in comparison to similar engagements in other communities, this was a very low-conflict consultation, showing the Municipality of Central Manitoulin has a community with strong consensus around the actions outlined for Council's consideration in the Community Energy and Emissions Plan (CEEP).

Perceptions of Climate Change: Most respondents in Central Manitoulin do not want the municipality to declare a climate emergency but this doesn't mean that residents are not worried about the impact of climate change with the majority of respondents indicating they are at least somewhat, very worried or extremely worried about climate change. 50% of respondents are most worried about extreme wind events, prolonged power outages and wildfire

Home Buildings and You: A 50% GHG reduction in homes and buildings is looking attainable with over 50% of respondents indicating that they would be planning at minimum; minor energy efficiency upgrades on their home in the next 5yrs. Only 24% of people are considering deep energy retrofits like replacing a roof or upgrading an energy system. While 24% might seem low – this finding is could result in a major carbon positive shift, driving down emissions and energy costs, if homeowners choose renewable energy sources. Next steps could include, increasing the profile of Central Manitoulin's already successful business incentive program and extending this program offering to include homeowners, providing support and educational resources on applying for provincial and federal grants and incentive programs, working with local contractors and educators to increase our community capacity to implement this energy transition.

"I'm impressed with the survey and software. I like how participants have the info. at the top and the "how achievable is my target" on the right. Super cool!"

- Central Manitoulin Resident

Summary

Transportation and You: Interestingly – close to 30% of residents reside only 5-10 km away from work but most of them drive to work instead of cycling or car-pooling. The good news is that the top two supported actions are to increase the availability of electric vehicle (EV) charging stations and the establishment of an island wide transit system.

Waste Reduction and You: The waste reduction survey questions focused on reducing our GHG emissions and waste in the landfill by diverting more materials through glass recycling and composting. The survey found that 59% of respondents thought the municipality should collaborate with other island communities to create a glass pulverizing facility and a significant majority – 86% of respondents are in support of at home composting instead of a centralized composting facility.

Shared Spaces: When it comes to our shared municipal buildings the majority, 66% of participants are in favour of the municipality prioritizing the conversion of fuel/propane power to a renewable, net-metered energy source. Our natural assets are also very important to our residents and the survey showed that most participants 85% live in Central Manitoulin because of our natural environment. It's no surprise that the actions supported in this category are equally supported with more than 50% of respondents in support of establishing an aquifer monitoring and source water protection program, community gardens and more grant application and technical support for natural asset management to protect, preserve and increase Central Manitoulin's sensitive, unique and biodiverse eco-system.

"One of the best surveys I have ever taken. Loved the kids pictures! Really well thought out questions and scope, love the way you guys are thinking....."

- Teg Gidda, VP and Global Leader, Future Energy – GHD and Adjunct Professor at University of Waterloo

"I love the idea that the township is using modern communication strategies to get feedback from the community. This survey was more than just a survey – educational and engaging, its more like a community engagement masterpiece"
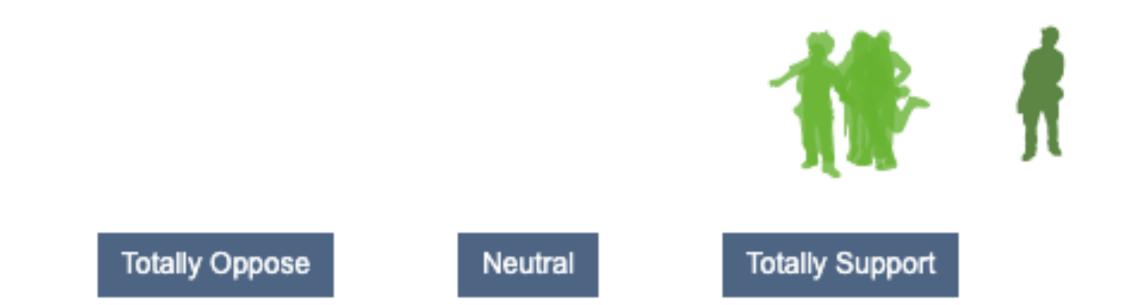
- Billings Resident

Food and Agriculture: The top three most supported actions to promote more local food consumption are increasing local food vendors at farmers markets, educational and resources support for expanding home gardens and investment in 4-season farming and food production locally.

Overview

Based on community members' input, Ethelo was able to identify key elements of an ambitious Climate Action Plan that meets the community's 50% reduction target and is widely supported by a broad cross section of community members.

| Totally Oppose | Neutral | Totally Support |

Extremely Popular. The distribution of support shows how happy people are with the plan overall.

11,036 tonnes of greenhouse gas could be reduced within this set of options.

Difficulty score of 2 out of 10. This plan is considered easy and achievable overall.

245 community members voted in the public engagement process

Overview

Support is the average values of the votes, where the value of a totally opposing vote is 0 and a totally supportive vote is 100.

Service Area	Support
Municipal Buildings	
50% = 77 tonnes GHG	74%
Energy Efficiency	
50% = 8,001 tonnes of GHGs	77%
Personal Vehicles	
25% = 2130 tonnes GHG	69%
Municipal Vehicles	
50% = 117 tonnes GHG	66%
Composting	
50% = 711 tonnes of GHGs	70%

Participation

- Number of visitors: **362**
- Number of respondents: **245**
- Page views: **4,882**
- Average time on platform: **19 minutes**

Participant Recruitment

In order to ensure a representative sample of the Municipality's population had the opportunity to participate, eDemocracy Solutions, (Ethelo's sister not-for-profit,) with support from municipal staff and community members, executed an outreach campaign which included:

- posters throughout the community

- municipality-wide mail-out

- phone campaign

- digital advertising campaign

Our Phone Campaign Included

- 310 Outbound Calls

- 80 People Spoken To

- 98 Voicemails Left

- 39 Surveys Completed Over Phone

Voting Results

Photo credit: James Smedley and Destination Ontario

Overview

What makes a good plan?

The two pictures above represent levels of **support*** and **conflict**** for two potential plans. In each picture, colours are used to reflect the overall sentiment of each respondent, with red representing "unhappiness", and dark green representing "happiness". The plan on the right is a better plan than the one on the left. Why? Because the people on the right are roughly equally happy. They will be united in moving forward together, which increases the chance of success.The plan on the left is divisive and polarizing, with winners and losers. This means a higher chance of conflict and resistance to moving forward. Fairness is very important in group decisions and for society in general. The plan on the right distributes happiness in a fair way, which is critical to social cohesion and the democratic legitimacy.

Ethelo has outlined each of the following options after optimizing for the highest levels of community support, and the lowest levels of conflict, thereby minimizing polarization and creating wide-spread community buy-in.
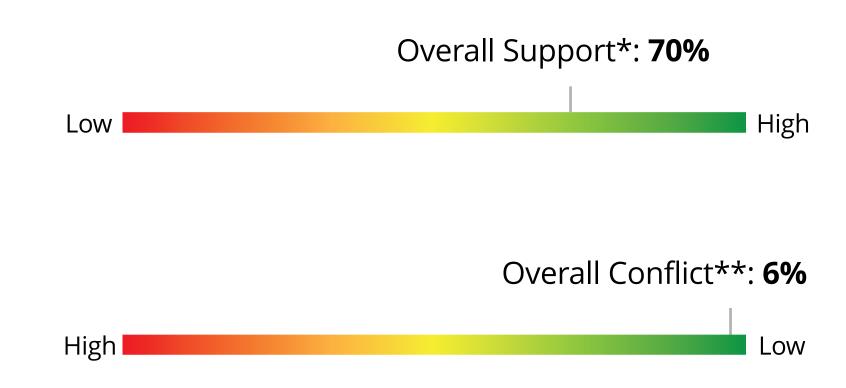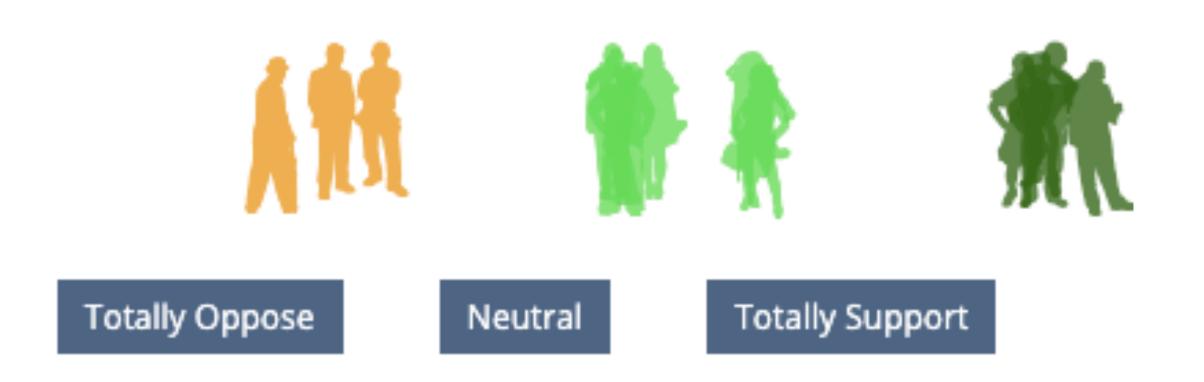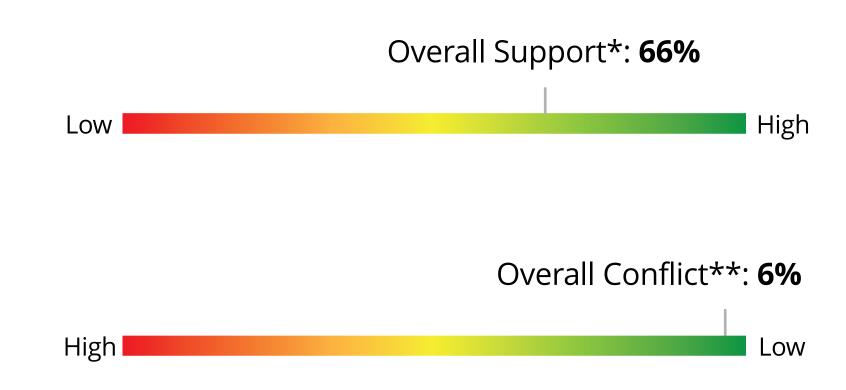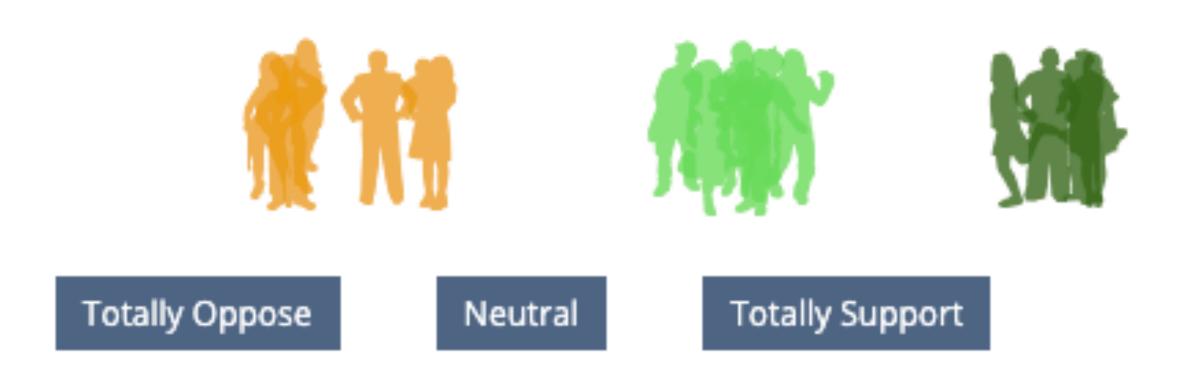
***Support** is the average value of all participant votes where 0 represents a totally opposing vote, and 100 represents a totally supportive vote.

****Conflict** is a measure of the level of disagreement in a group. Higher conflict scores represent higher likelihood of internal resistance and failure.

Energy Efficiency

- Recommended Target: 50%
- GHG Reduction: 8,001 tonnes GHG by 2030

Overall Support*: **78%**

Low | High

Overall Conflict**: **5%**

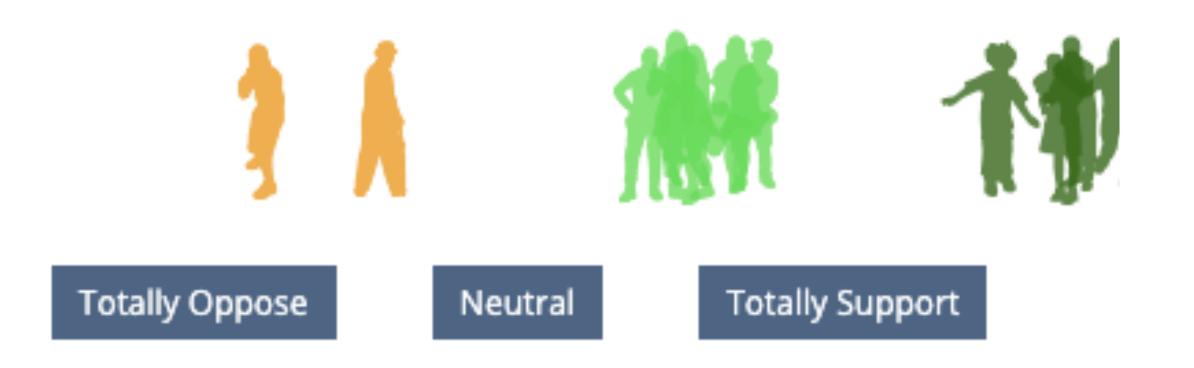High | Low

Totally Oppose | Neutral | Totally Support

*****Support** is the average value of all participant votes where 0 represents a totally opposing vote, and 100 represents a totally supportive vote.
****Conflict** is a measure of the level of disagreement in a group. Higher conflict scores represent higher likelihood of internal resistance and failure.

Composting

- Recommended Target: 50%
- GHG Reduction: 711 tonnes GHG by 2030

Overall Support*: **70%**

Low ▬▬▬▬▬▬▬▬ High
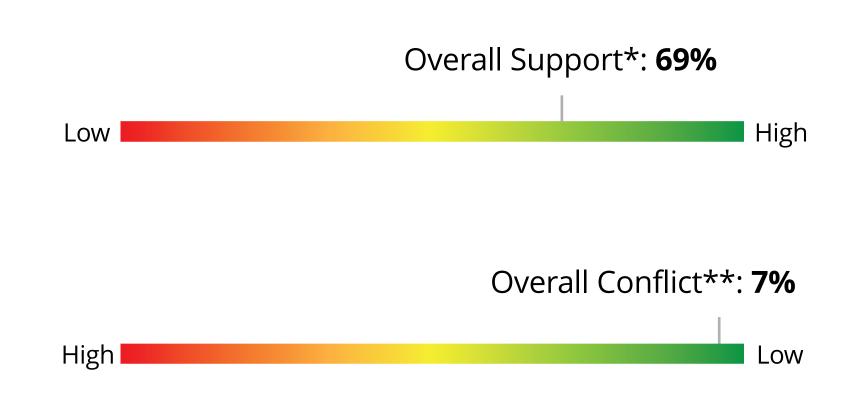
Overall Conflict**: **6%**

High ▬▬▬▬▬▬▬▬ Low

13

***Support** is the average value of all participant votes where 0 represents a totally opposing vote, and 100 represents a totally supportive vote.
Conflict is a measure of the level of disagreement in a group. Higher conflict scores represent higher likelihood of internal resistance and failure.
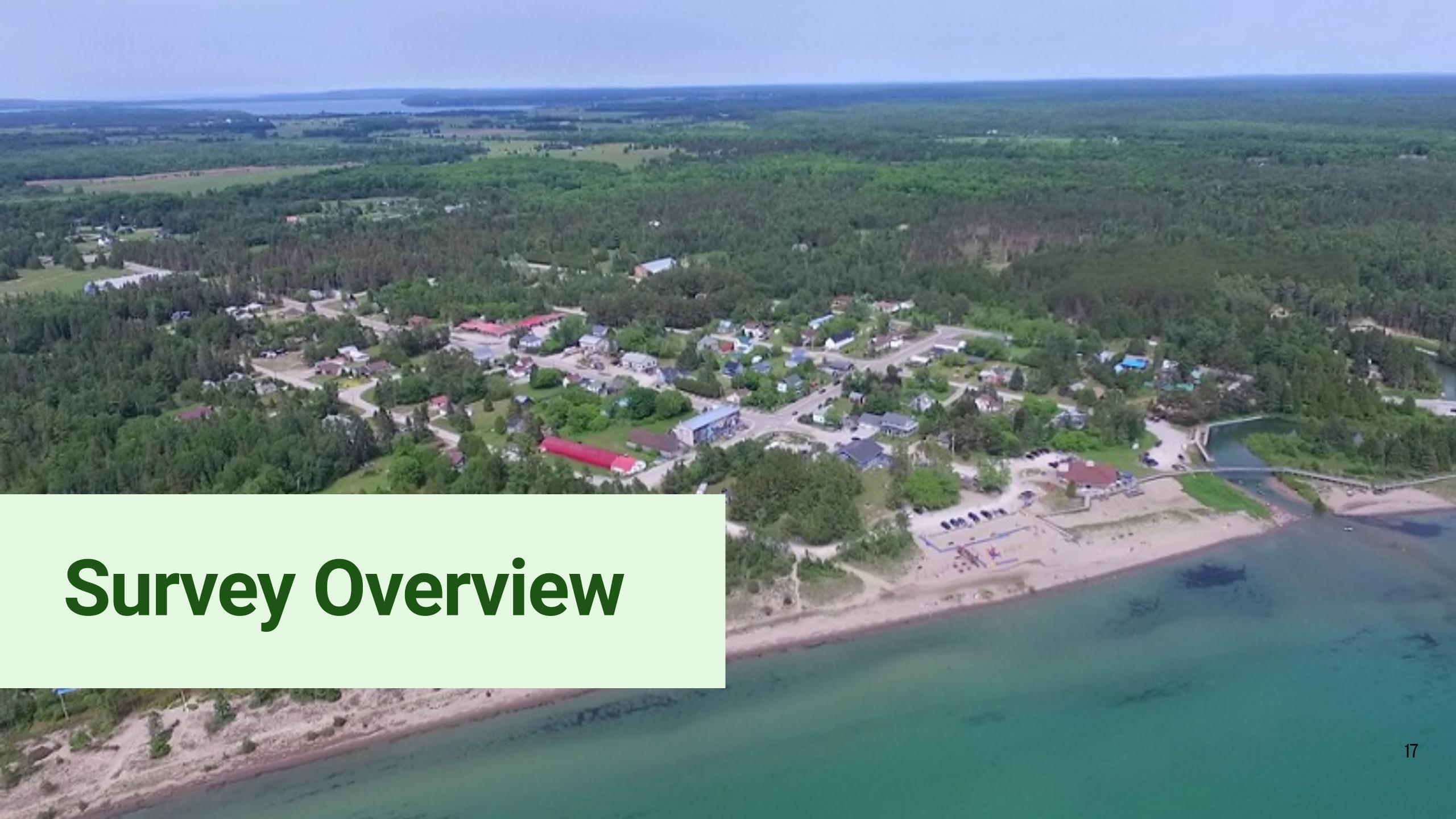
Municipal Vehicles

- Recommended Target: 50%
- GHG Reduction: 117 tonnes GHG by 2030

Overall Support*: **66%**

Low ▬▬▬▬▬▬▬▬ High

Overall Conflict**: **6%**

High ▬▬▬▬▬▬▬▬ Low
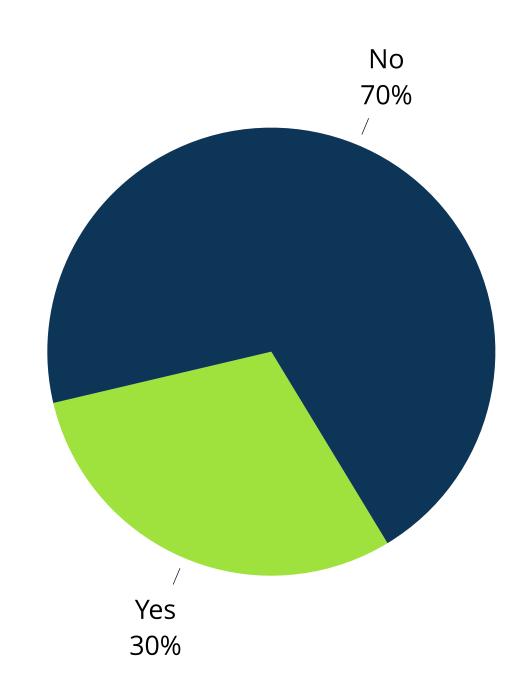
Totally Oppose   Neutral   Totally Support

***Support** is the average value of all participant votes where 0 represents a totally opposing vote, and 100 represents a totally supportive vote.
Conflict is a measure of the level of disagreement in a group. Higher conflict scores represent higher likelihood of internal resistance and failure.
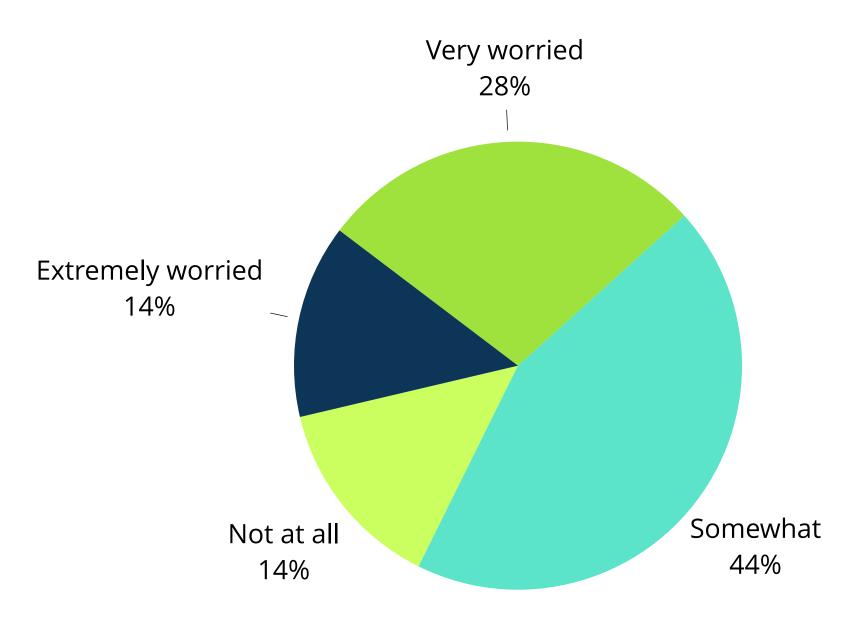
Municipal Buildings

- Recommended Target: 50%
- GHG Reduction: 77 tonnes GHG by 2030

Overall Support*: **74%**

Low ————————————— High

Overall Conflict**: **5%**

High ————————————— Low

Totally Oppose   Neutral   Totally Support

*Support is the average value of all participant votes where 0 represents a totally opposing vote, and 100 represents a totally supportive vote.
**Conflict is a measure of the level of disagreement in a group. Higher conflict scores represent higher likelihood of internal resistance and failure.

Personal Vehicles

- Recommended Target: 25%
- GHG Reduction: 2,130 tonnes GHG by 2030

Overall Support*: **69%**

Low ▬▬▬▬▬▬▬▬ High

Overall Conflict**: **7%**

High ▬▬▬▬▬▬▬▬ Low

Totally Oppose   Neutral   Totally Support

***Support** is the average value of all participant votes where 0 represents a totally opposing vote, and 100 represents a totally supportive vote.
Conflict is a measure of the level of disagreement in a group. Higher conflict scores represent higher likelihood of internal resistance and failure.

Survey Overview

Climate Change

Do you think the Municipality of Central Manitoulin should declare a climate emergency

How worried are you about climate change?

No
70%

Yes
30%

Very worried
28%

Extremely worried
14%

Somewhat
44%

Not at all
14%

Climate Change

Considering the information provided above about the climate change hazards and impacts that will affect us on Manitoulin Island – Tell us the top 5 hazards and impacts that concern you most?
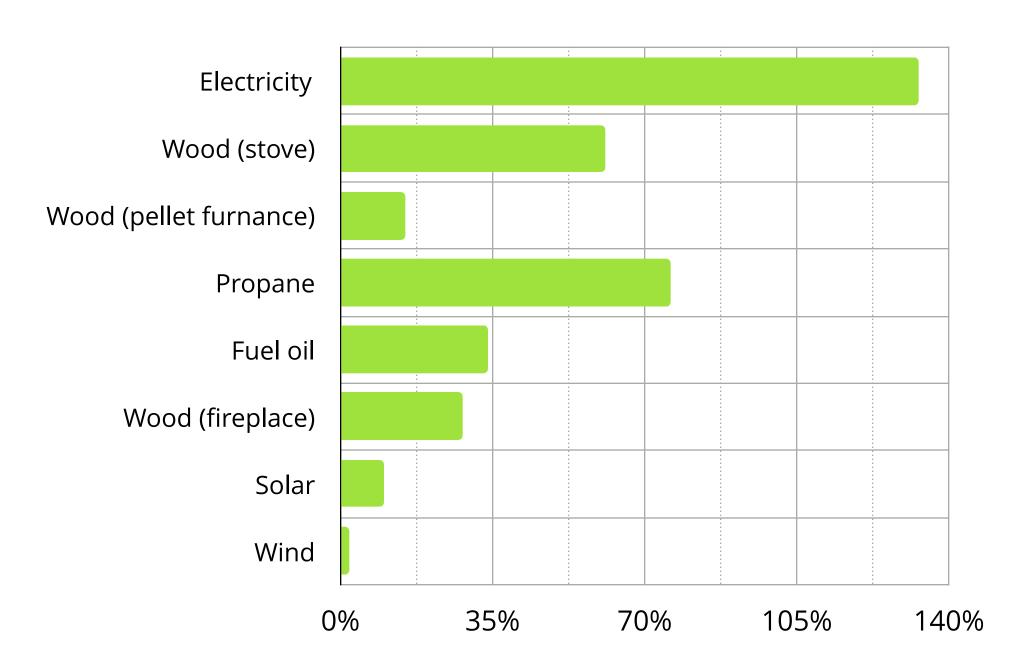
Homes, Buildings and You

In the next 5 years do you have any plans on making repairs or upgrades that will improve the energy efficiency of your home?

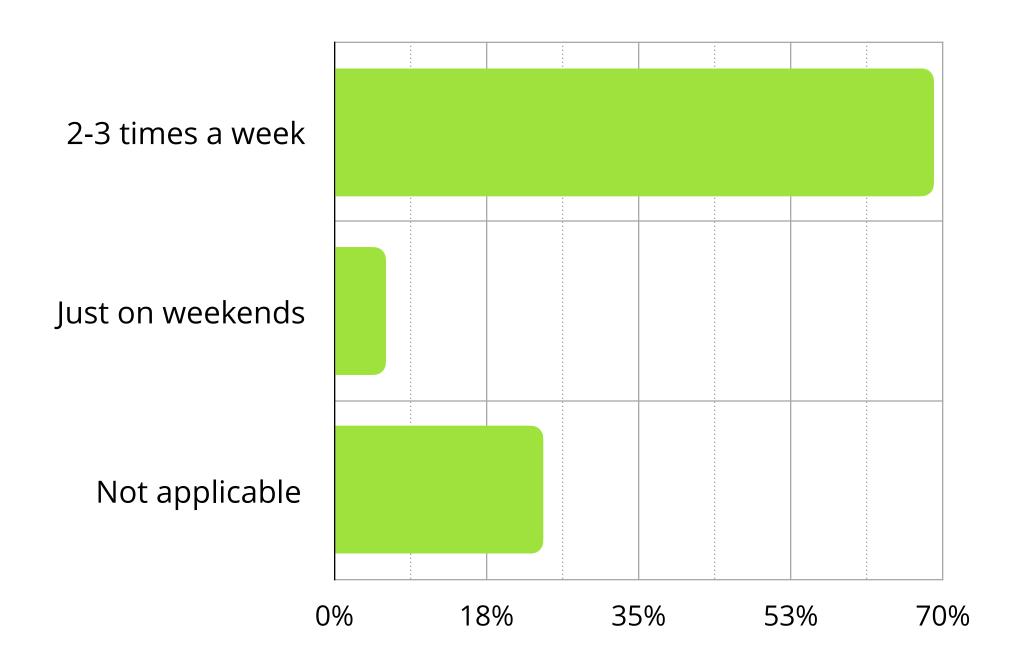What type of energy source do you use to heat, cool, and power your home?

Transportation and You

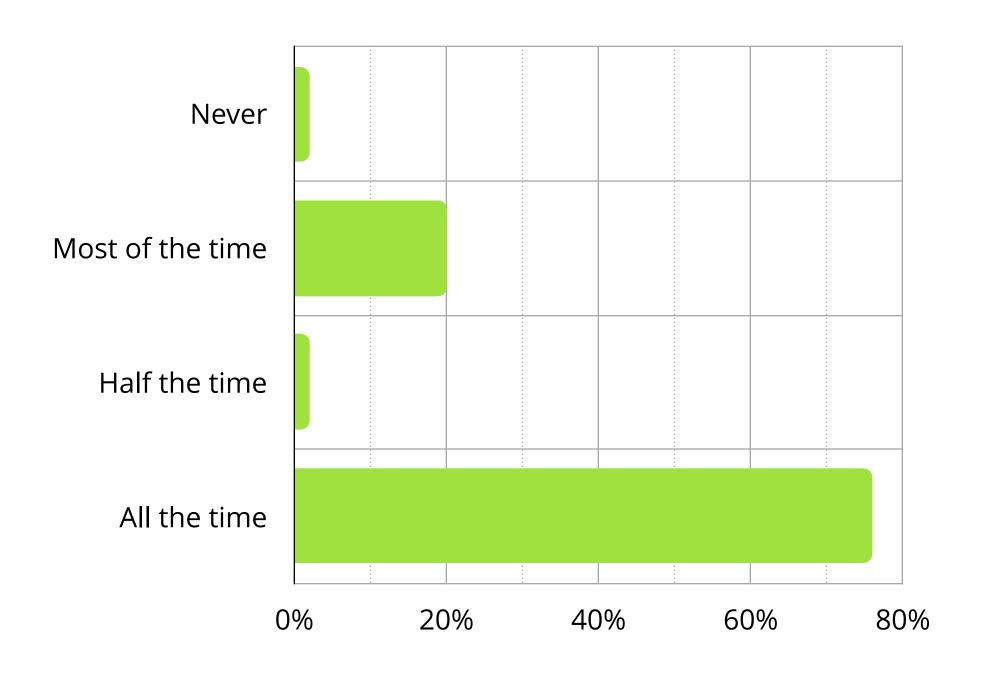If you are a regular commuter, how many kilometres is your round trip commute?

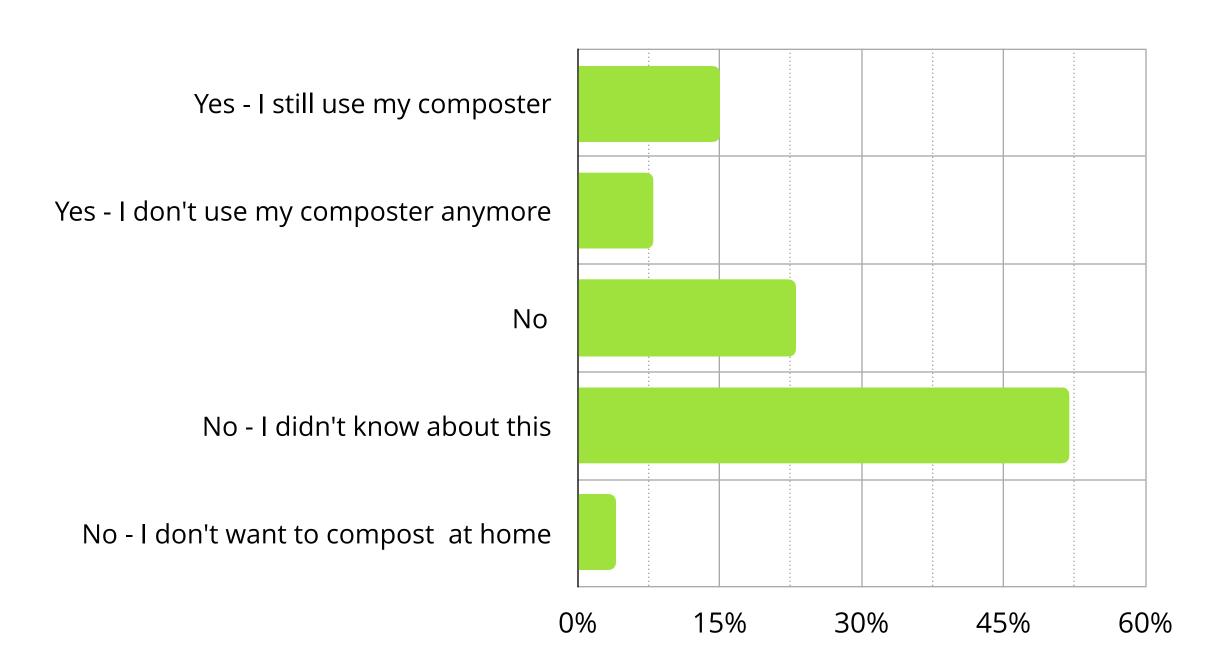If you are an irregular commuter, how often do you drive?
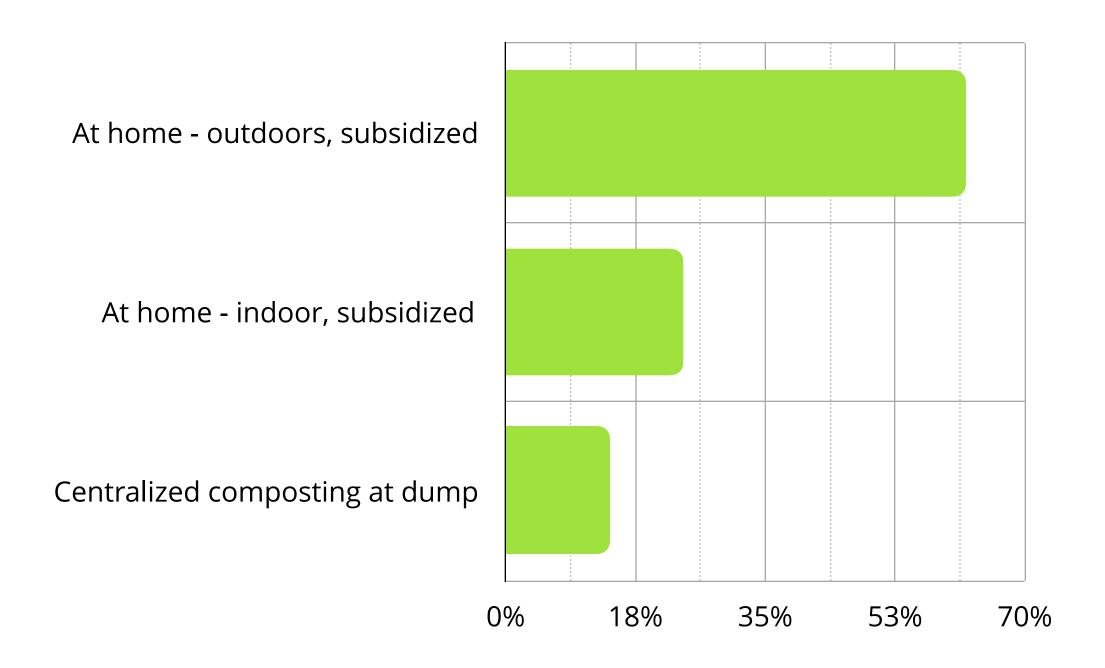
Waste Reduction and You

How often do you recycle?

Please let us know if you participated in this program and if you are still using your composter purchased from the municipality?
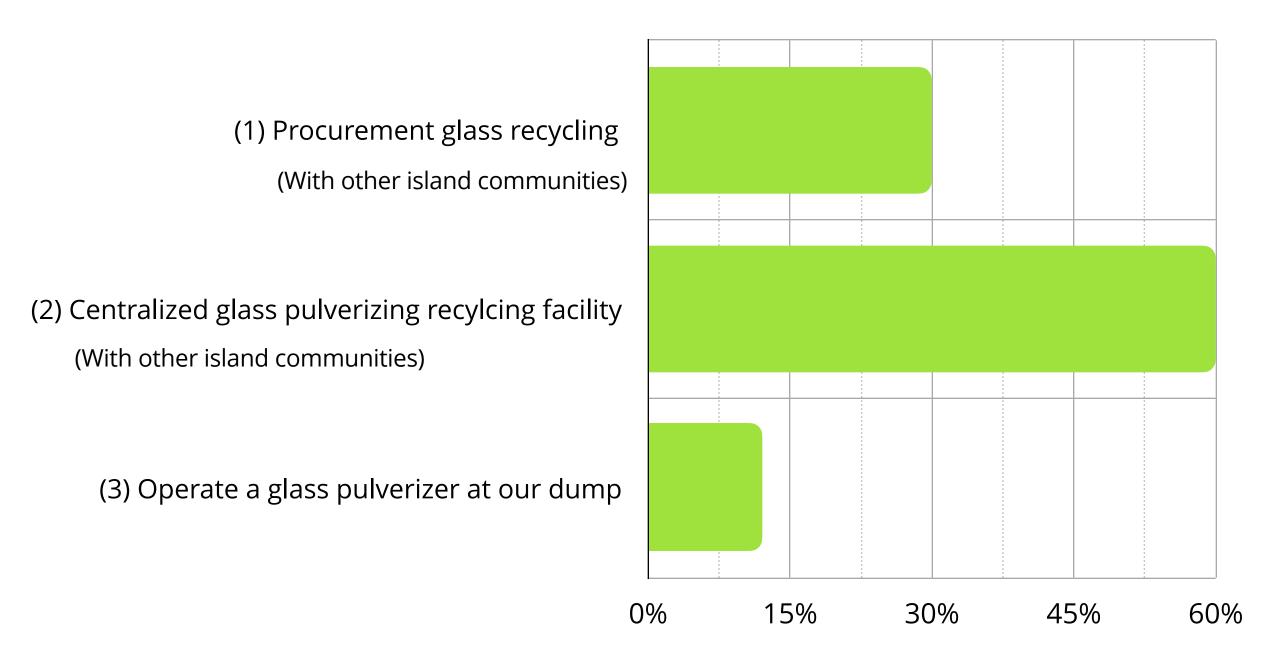
Waste Reduction and You

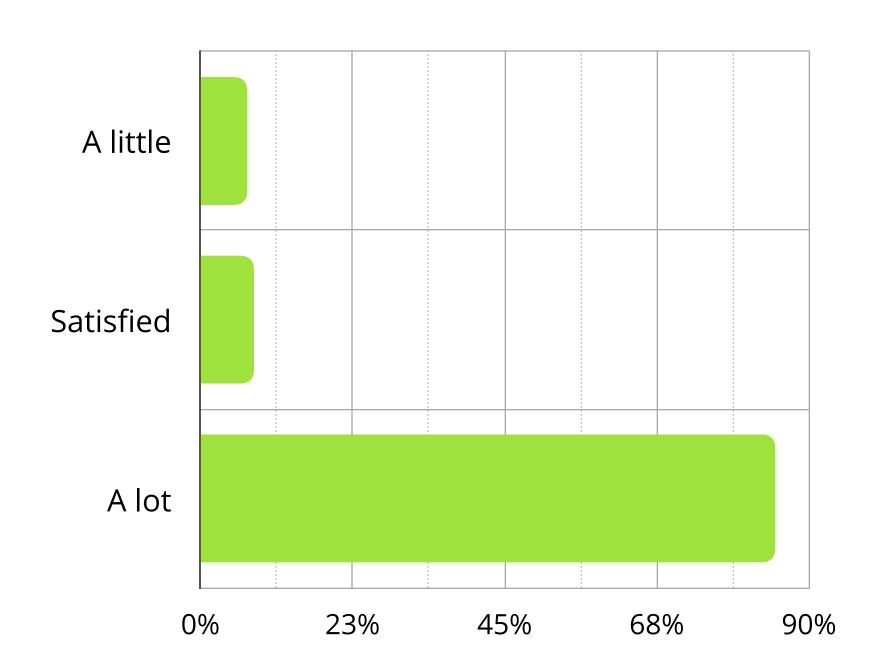What composting solution would you be most likely to use regularly?

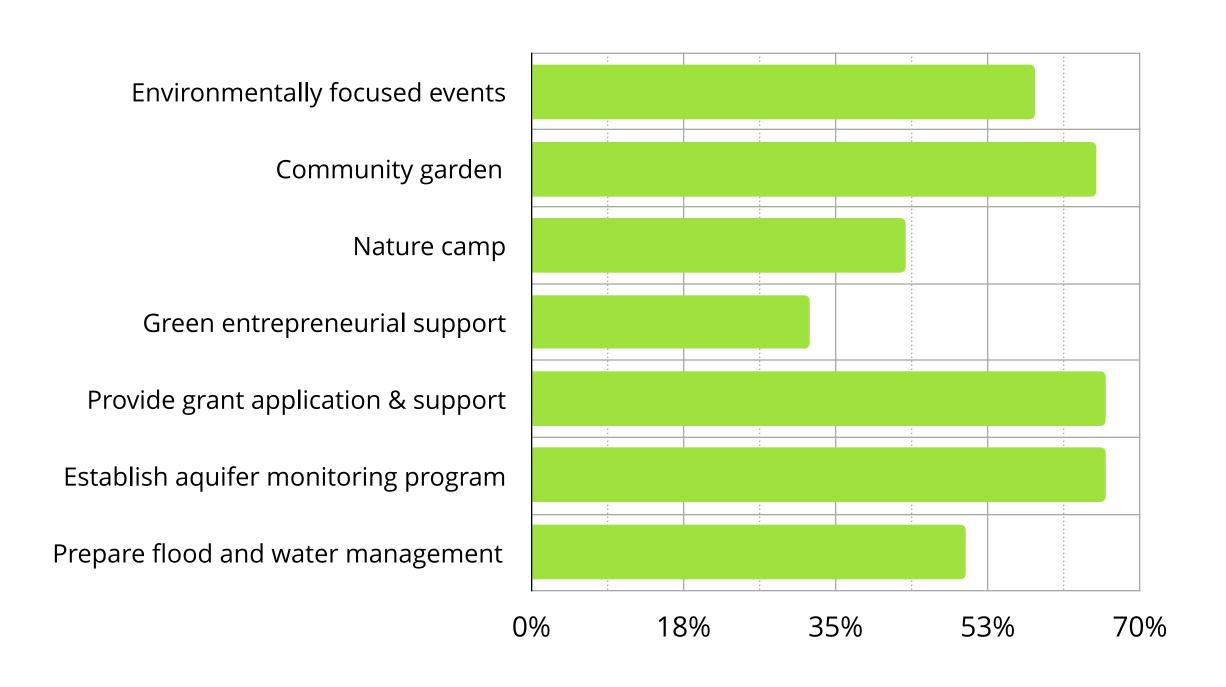Which of the following glass recycling solutions do you think the township can and should pursue?*

At home - outdoors, subsidized

At home - indoor, subsidized

Centralized composting at dump

0%   18%   35%   53%   70%

(1) Procurement glass recycling
(With other island communities)

(2) Centralized glass pulverizing recylcing facility
(With other island communities)

(3) Operate a glass pulverizer at our dump

0%   15%   30%   45%   60%

23

*Full titles: (1) Partner with other island communities to conduct a combined procurement for glass recycling. (2) Partner with other island communities to create a centralized glass pulverizing recycling facility that operates on renewable energy. (3) Operate a glass pulverizer at our dump - recycle the glass here on the island and make it into sand.

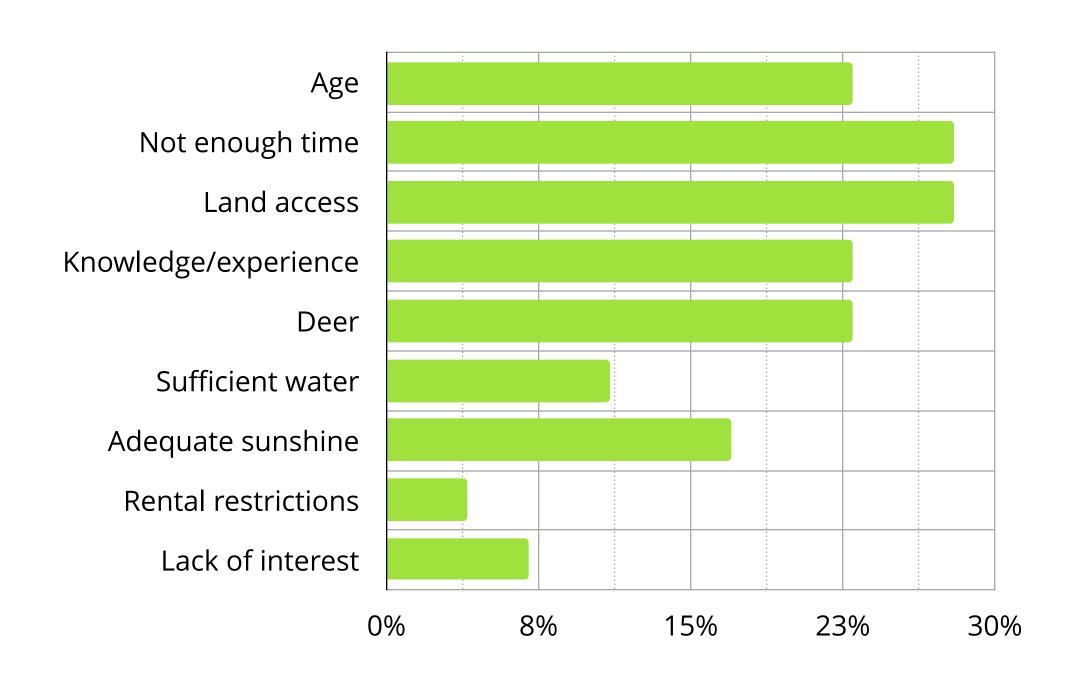# Shared Spaces

How much do you value our natural shared spaces?*

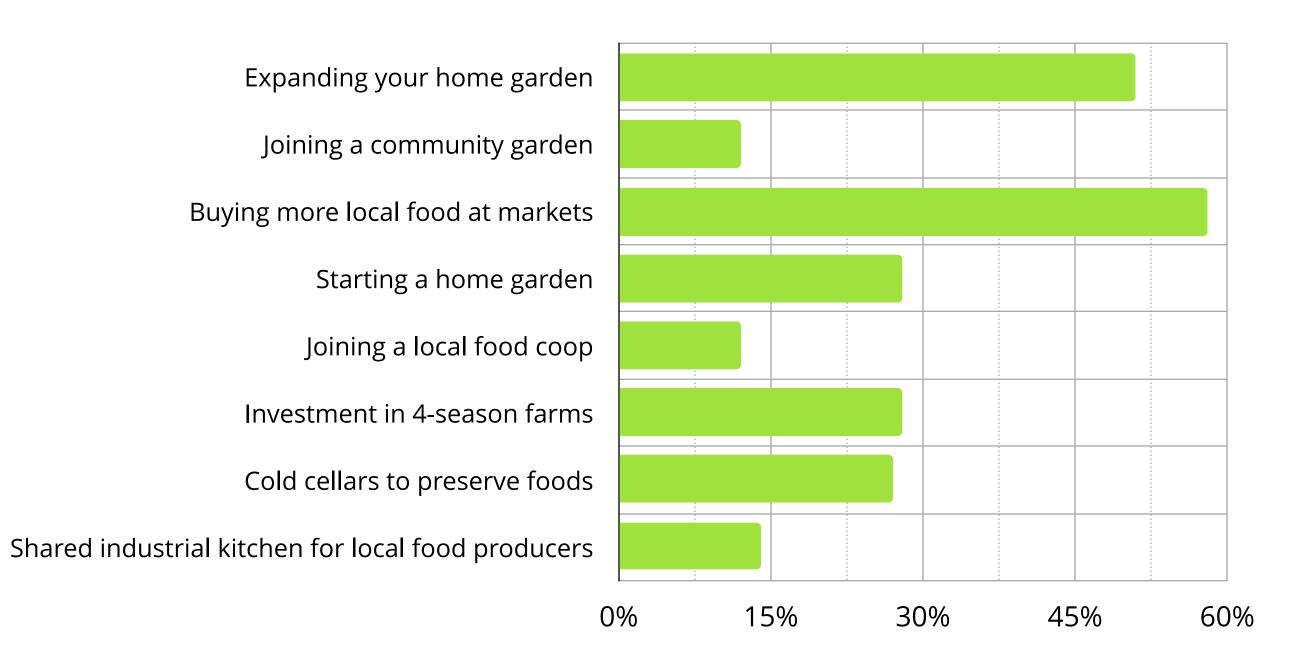What are your top three priorities for our shared natural spaces?

*Not Featured: Not at all - 0%

24

Food and Agriculture

What are the barriers for you to grow more of your own food and increase local food production?
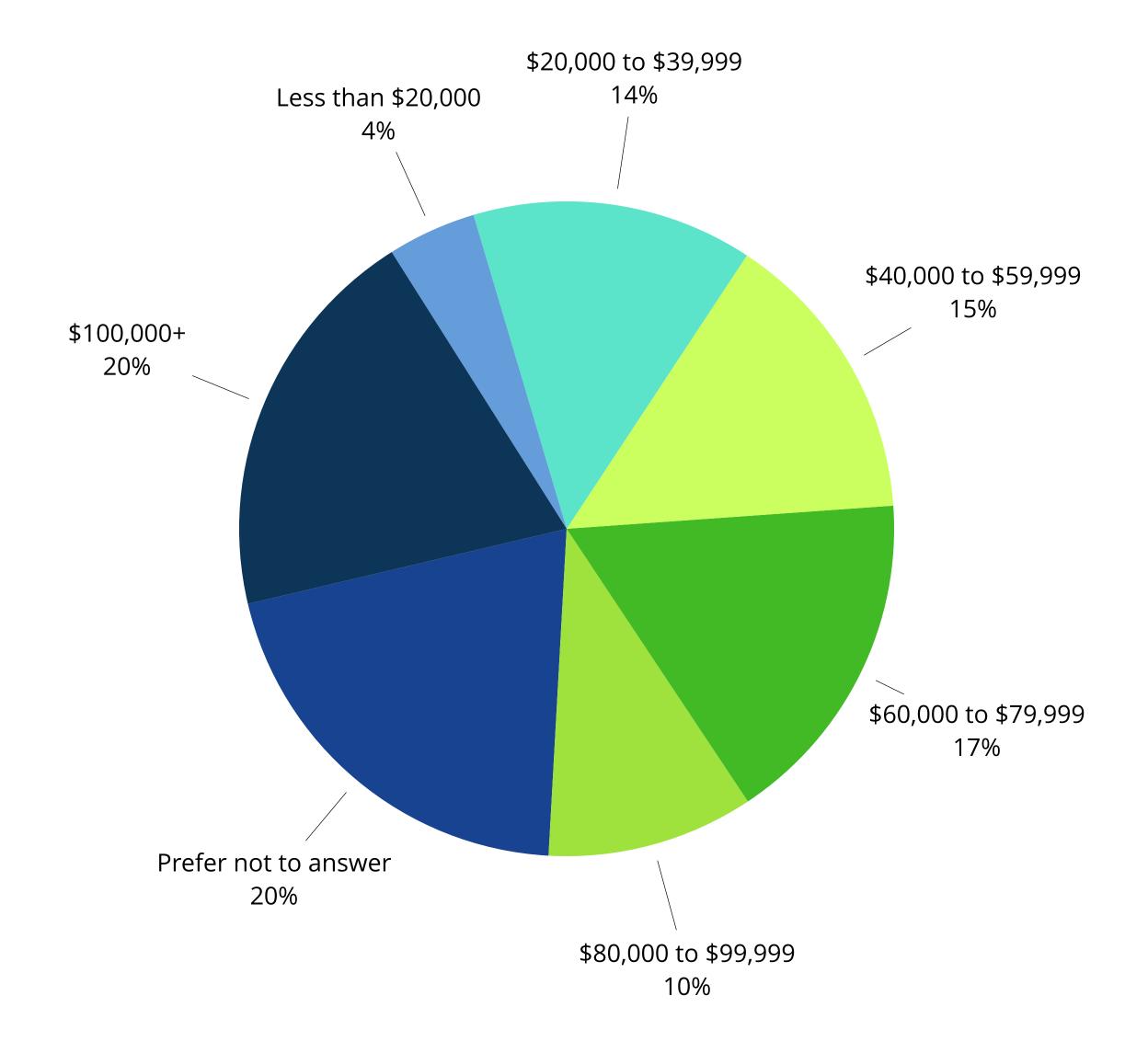
What method of local food production/consumption are you most interested in supporting?
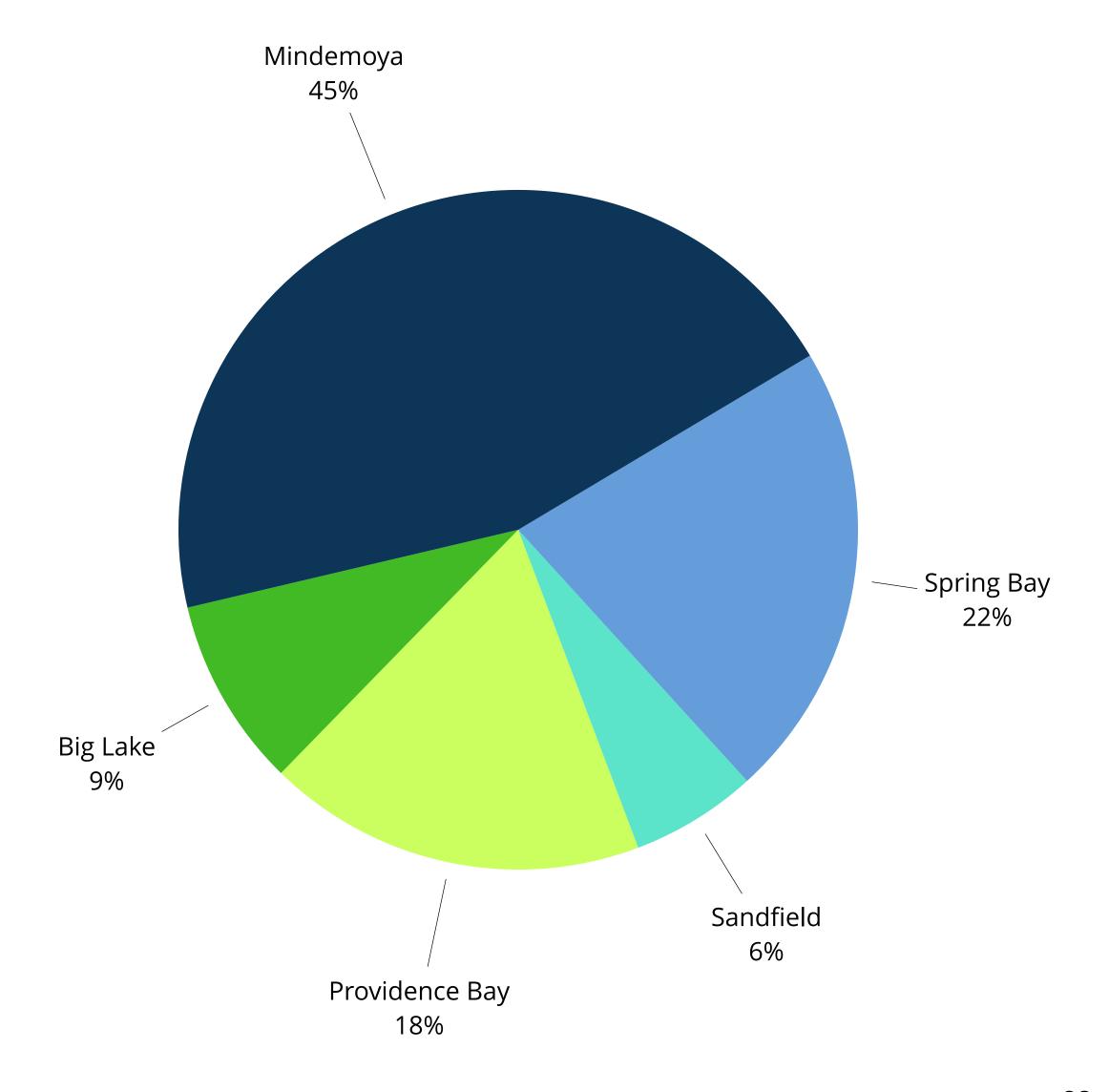
25

Demographic Information

Household Income

Less than $20,000
4%

$20,000 to $39,999
14%

$40,000 to $59,999
15%

$60,000 to $79,999
17%

$80,000 to $99,999
10%

Prefer not to answer
20%

$100,000+
20%

Where do you live?

Mindemoya
45%

Spring Bay
22%

Sandfield
6%

Providence Bay
18%

Big Lake
9%

22%

Age

51-65
34%

31-50
20%

18-30
4%

80+
5%

66-79
37%

Municipality/Township

I am an occasional visitor/tourist
6%

Township of Billings
2%

Municipality of Central Manitoulin
92%

Residency

Other
5%

Non-resident property owner
1%

Local business owner
6%

Farm
5%

Seasonal (renter)
1%

Seasonal (homeowner)
8%

Permanent (Renter)
5%

Permanent (homeowner)
68%

Thank you!