



Environmental Framework survey research results

Date: March 2021



Introduction and Purpose

In March 2021, Strathcona County conducted an online survey as part of its Strathcona County Online Opinion Panel (SCOOP) initiative on measuring respondents' perceptions toward an Environmental Framework.

Obtaining primary data from residents directly will provide Strathcona County departments with information and enable County officials to make decisions that accurately reflect the perspectives and attitudes of residents. This report will provide a comprehensive review of all steps undertaken in the development and implementation of the survey, as well as a detailed summary of the results. The results from this study were prepared by Phil Kreisel, Ph.D. (Communications); SPSS was used for the data analysis and NVIVO was used for the analysis of the open-ended data.

This report covers questions associated with this project. A review of the methodology associated in the development and implementation of this survey can be found in the next section of this report.

Methodology

The questionnaire

The questions used in this study were new, using questions that were submitted by department representatives from Planning and Development Services, Utilities and Corporate Communications. The survey was then created, reviewed and modified where necessary by members of Survey Central for wording, question

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ordering and general understanding. This included a final check of the content by FOIP¹ prior to the release of the survey to the public.

Sampling design and data collection procedure

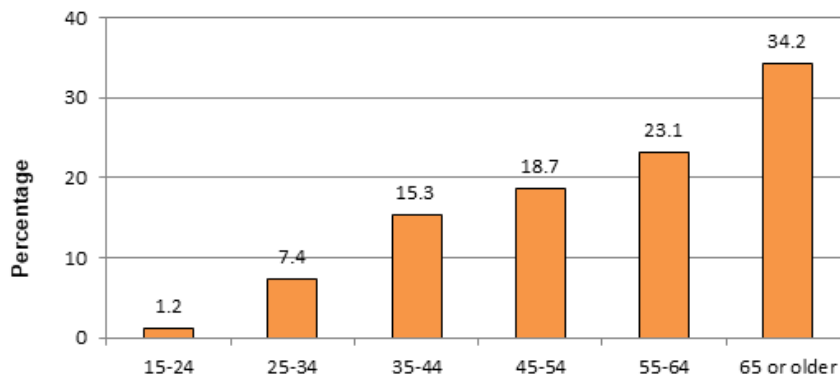
The sample frame used in this study consisted of 617 people who were drawn from those who had previously signed up to be part of SCOOP, Strathcona County’s online opinion panel. Overall, 64.7% of the participants lived in the urban area, 33.1% came from rural parts of Strathcona County, and the remaining 2.3% worked in Strathcona County but did not live there.

Although poll-based data is derived from people who were not randomly selected but have access to the online poll and decide to participate, the margin of error for a comparable probability-based random sample of the same size is $\pm 3.9\%$, 19 times out of 20.²

During the fielding of the survey, respondents had the option to skip a section if they felt that the topic had no relevance to them.

As seen in Figure 1, most of the respondents who participated in the survey are over the age of 44, with 24.3% of the participants between the age of 25 and 44. Only a very small percentage of participants were under 25. Overall, 55.7% of participants were female while 44.3% were male.

FIGURE 1
Age of Respondents



Survey Results

Air quality, water conservation and carbon footprint

Initially, respondents were asked a series of questions pertaining to air and water quality in Strathcona County. The first question asked people if they would be willing to allow the

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County to install a small microsensors (pictured below) to monitor air quality on your property free of charge. Overall, 56.7% were willing to allow this, 22.9% said no, while the remaining 20.4% were not sure.

FIGURE 2
Microsensor to monitor air quality



When looking for ways to conserve water in their daily activities, respondents were presented with a variety of options. Table 1 shows the overall breakdown, as well as urban and rural comparisons.

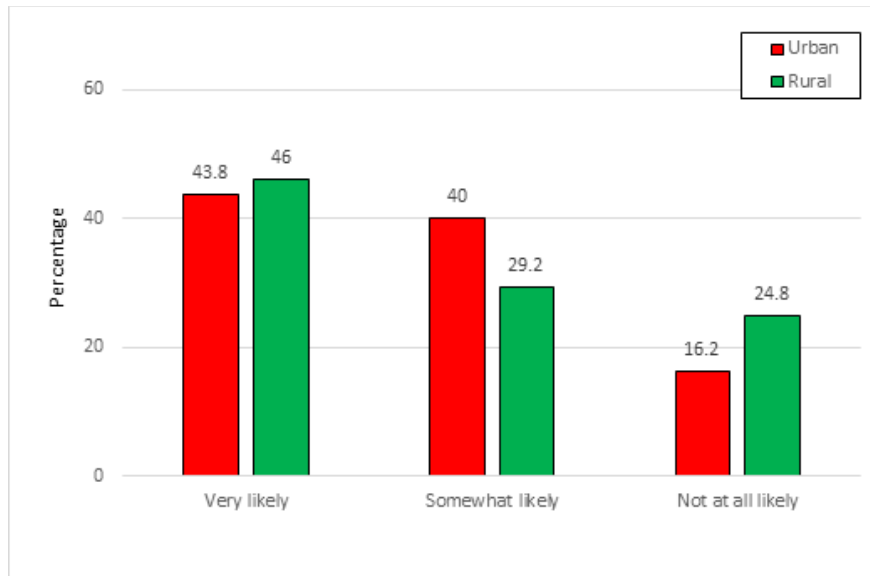
Table 1
Various forms of water conservation
Overall results plus urban and rural comparisons

	Overall	Urban	Rural
	%	%	%
Decreasing tap water use	71.1%	72.4%	69.6%
Increasing rainwater use	69.5%	65.8%	76.0%
Saving money by improved efficiency	68.5%	72.6%	59.8%
Saving money with a rebate	62.7%	67.8%	53.4%
Having appliances that automatically conserve water	62.7%	67.8%	53.4%
Receiving money with an incentive	52.3%	54.8%	48.5%
I do not currently actively conserve water	5.2%	5.8%	3.9%
Other	9.1%	6.5%	13.2%

The “other” category put forward by respondents primarily reiterated specific ways that residents were conserving water, such as the replacement and installation of low flush toilets, limiting the number of toilet flushes in a day, making secondary uses of water that was already used for something else (like first cooking vegetables) and using collected rainwater for watering plants. Rural residents also noted that they have their own well as their source for water.

Next, respondents were asked about their carbon footprint, after it was explained to them how one’s activities impact the atmosphere. A breakdown of how likely residents were to look at ways to reduce their carbon footprint is shown in Figure 3.

FIGURE 3
Likelihood of reducing the carbon footprint
Urban and rural comparisons



Respondents were then asked how they thought Strathcona County could help encourage reducing the community’s carbon footprint. Respondents were presented with a variety of options. Table 2 shows the overall breakdown, as well as urban and rural comparisons.

Table 2
Reduction of the carbon footprint
Overall results plus urban and rural comparisons

	Overall	Urban	Rural
	%	%	%
Provide information on completing a self-guided home energy audit	64.3%	60.6%	57.4%
Provide a rebate for purchasing new energy-efficient fixtures	57.6%	60.3%	53.4%
Provide a kit to test for phantom power drawing from plugged in but turned off electrical items in the home or workplace	55.2%	56.0%	53.4%
Provide a rebate on LED lightbulbs	50.0%	49.2%	52.0%
Provide a Green Renovation Rebate	48.2%	52.0%	40.2%
Provide a rebate for a home energy audit	46.1%	49.0%	40.7%
Install electric vehicle charging stations	39.1%	40.7%	36.8%
Perform a home energy audit	37.7%	39.2%	34.8%
Promote the use of electric bikes	34.3%	36.4%	28.9%

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Provide free samples of cold-water laundry detergent to switch to cold water loads	25.5%	25.4%	26.0%
Encourage car share programs	23.7%	23.4%	23.5%
Encourage bike share programs	18.2%	20.6%	12.3%
Other	17.0%	15.6%	19.0%

There were a variety of answers put forward in the “other” category. The use of energy was mentioned numerous times, including the use of solar energy panels as an alternative energy source (and making use of existing rebates). Some residents thought that the County should not be driving empty buses (especially large ones) when there is no demand for their use. Electric bikes and electric vehicles were mentioned by some residents as possible alternative energy sources, though there were also many residents who were not convinced that these would cut down the carbon footprint. While there were some people who applauded rebates, there were others in the County who felt that tax dollars should not be used to benefit private citizens.

Wetlands

All respondents were given a background on what wetlands were. The majority of respondents indicated that the question was not applicable to them. Of the ones living in the rural Strathcona County who were, when asked if they would consider having a wetland constructed or restored on their land to help replace what is lost to development, 29.2% said yes, 44.5% said no, and the remaining 26.3% were not sure.

These same respondents were also asked whether they would consider a conservation easement on their land. Of those who fit the criteria, 21.6% said yes and agreed to be contacted, 44.8% said no, and the remaining 33.6% were not sure.

Biodiversity

All respondents were given a background on what biodiversity was. After reading the background information, it was found that 55.9% were interested in learning more about biodiversity in Strathcona County, 23.0% were not, and the remaining 21.2% were not sure.

Those who were interested were asked for their preferences on how they would like to receive information about biodiversity. It can be seen in Table 3 that getting information via the website was the most popular, regardless of where the individual lived within the County.

Table 3
Information about biodiversity
Overall results plus urban and rural comparisons

	Overall	Urban	Rural
	%	%	%
Website information	74.6%	73.4%	77.0%
E-newsletter	65.6%	65.9%	66.4%
Online or in-person workshops	45.7%	44.5%	48.2%
Online or in-person lectures	37.9%	40.8%	31.9%
Social media updates	33.4%	36.2%	26.5%
Printed brochures	19.2%	17.4%	23.9%
Direct email	18.6%	15.1%	25.7%

Overall, it can be seen in Table 3 that almost half of the respondents were interested in attending one or more workshops. A list of the type of workshops that people were interested in is summarized in Table 4.

Table 4
Interest in various biodiversity workshops
Overall results plus urban and rural comparisons

	Overall	Urban	Rural
	%	%	%
Eco-scaping	74.7%	77.3%	68.5%
Backyard birding	74.0%	76.3%	70.4%
Backyard diversity	74.0%	78.4%	64.8%
Native bees	74.0%	78.4%	66.7%
Butterfly gardens	74.0%	73.2%	74.1%
Neighborhood naturalization	70.8%	72.2%	66.7%
Bat box construction and installation	51.9%	46.4%	61.1%
Pesticide free landscaping	51.9%	53.6%	50.0%
Dark Sky initiatives	42.9%	44.3%	42.6%
Meal planning workshops	42.2%	46.4%	35.2%
Aquatic invasive species	28.6%	20.6%	42.6%
How to care for your stormwater pond	26.8%	19.8%	38.9%
Other workshop ideas	9.8%	9.4%	11.1%

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There were some additional suggestions for additional workshop topics. These are listed below:

- Biodiversity in home gardens
- Chemical-free gardening
- How to convert front yards to eatable gardens
- Having knowledgeable people man booths at farmers markets and other community events. Involve school environment clubs to present material or have contests for student projects and displays
- How to handle livestock waste so that the pastures are regenerative
- A workshop on bat boxes is a great idea. I got a bat box last year and had to get the bookmobile to do interlibrary loan for info on bat boxes
- Living with wildlife
- Management of moose, deer, rabbits, squirrels...
- Please don't forget those of us who live in apartments – a worm composting workshop would be nice
- Solar/wind power, chicken coop, canning-preserving classes
- Wetland and creek restoration, regenerative farming workshops
- When we moved to our acreage almost nineteen years ago, we could sit on our back deck at night and see hundreds of stars. Now, the light pollution from Sherwood Park, Fort Saskatchewan, Beaumont and Leduc have largely wiped that out. Sherwood Park could be a community that should light the streets and commercial businesses to the standards of the Dark Sky Initiative.

Other comments/suggestions

The last question in the survey was an open-ended one, which asked respondents if they had any additional suggestions pertaining to the Environmental Framework topic areas of

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air, water, land, biological diversity, or energy. Overall, 23.8% of respondents had additional ideas or comments about this topic. Using the NVIVO software for analyzing open-ended responses, each color in Figure 4 represents a particular topic area. Overall, 40 different topic areas were identified through the software, though eight main themes were

extrapolated after additional analysis. Some of the suggestions also cross over into multiple topic areas.

Figure 4
Other suggestions for environmental sustainability



The main topic areas shown in Figure 4 are explained further and include the following:

Carbon: Comments in this area focused on how people did further interpretations of what a carbon footprint means, including an example of carbon capture (grass kept in active growing phase, trees, etc.), or instances where potential rebates for improving the carbon footprint would still be out of reach for economically disadvantaged groups of individuals.

Water: This covers a wide variety of topics, including better preservation of fresh water by eliminating the use of salt on streets after a snowstorm. One individual wondered what the County was doing to improve the quality of water in lakes within the region. Another comment put forward asked whether the County should consider the way it uses water

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easements in rural estates and potentially turn them into ecological habitats with river rocks, planting and proper use of natural water flow.

Use: A wide variety of concepts fit within this category, such as the use of rain water in gardening efforts, more efficient use of vehicles throughout the County and reusing products for other purposes instead of throwing them into the landfill (thus extending the carbon footprint).

Tax: This groups comments associated with the use of taxpayer dollars toward environmental sustainability, as well as the pros and cons of rebates and a carbon tax.

Plants: This theme crosses over into two distinct areas – the presence of industrial plants within a community and their effects on the environment, and questions/comments about organic plants (vegetation). Examples of the latter topic included questions about the use of pesticides by Strathcona County during the summer and the potential negative effects on rare and diversified plants, and even wildlife. A couple of other residents wondered what was being done about invasive plants that are finding their way into the County, such as the Himalayan Balsam species.

Energy: This theme encompasses a variety of topics, including comments on the pros and cons of nuclear energy, solar energy, and other aspects of energy use, such as energy efficient appliances and energy conservation.

County: A variety of comments are collected here (and cross over into other topic areas). The focus here is more locational, be it urban and rural settings within the County as a whole, and often includes issues associated with municipal government officials and the reasons for decisions made associated with energy.

Vehicles: Although not labeled in Figure 4 (it is the red strip at the top between the *water* and *use* categories), there were several comments associated with the impacts that vehicles have on the environment, though most people cannot fathom the elimination of these from communities. There were a few people who believed that gas vehicles should be replaced with electric vehicles, but there are no suggestions pertaining to how (and when) to do this. One individual thought that some basic education on vehicles and their effects on the carbon footprint could be considered, such as not leaving a vehicle running when going into a store.

APPENDIX A: SURVEY QUESTIONS

Strathcona County is updating its 2009 Environmental Sustainability Framework in 2021. The framework guides us to achieve our commitment to the environment. The following questions will inform our update related to the Framework's topic areas: Air, Water, Land, Biological Diversity, and Energy.

Air quality is an important part of a healthy environment and supports healthy citizens. In Strathcona County, we get reports on air quality through a system of air quality monitors.

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Residents can participate in air quality monitoring too! Would you consider hosting a small microsensor (pictured below) to monitor air quality on your property? These sensors are provided free of charge.



- Yes (please note: A Strathcona County staff member will contact you using the email you registered in SCOOP to follow up).
 - No
 - Unsure
1. Earth is 70% water, though only 3% is freshwater, and only 0.5% of that is available for human use. The earth's water supply is constantly strained due to growing populations and changing supplies. It is important to take part in conserving our supply. When looking for ways to conserve water in your daily activities, what do you consider? Select all options that apply:
- Saving money with a rebate (for example for a low flush toilet replacement)
 - Saving money by improved efficiency (for example reduced water bill by fixing plumbing leaks)
 - Receiving money with an incentive (for example for purchasing high efficiency appliances)
 - Decreasing tap water use (for example by shorter showers, limiting landscape watering, stopping driveway vehicle washing)

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- Increasing rainwater use (for example by using rain barrels, installing a rain garden, using low maintenance garden plants)
 - Having appliances that automatically conserve water
 - I do not currently actively conserve water
 - Other (please indicate. Do not include any personally identifying information)
2. Your carbon footprint relates to how much your activities impact our atmosphere. Every time you use a fossil fuel like gasoline, you create carbon dioxide. Your carbon footprint can be estimated by calculating how often you use fossil fuels. It includes how much you drive, what you eat, how much water you use, and how much you recycle. Reducing your carbon footprint can slow climate change. How likely are you to look for ways to reduce your carbon footprint?
- Very likely, I currently consider my emissions in my daily activities
 - Somewhat Likely, I would like to decrease my emission in my daily activities but need more information
 - Not at all likely, I would need to see a cost savings in order to change my daily activities
3. There are many ways to improve energy efficiency and reduce your carbon footprint. What do you think Strathcona County could do to help encourage reducing our community's carbon footprint? (Check all that apply)
- Provide a rebate for a home energy audit (an inspection and evaluation of a home's structure and systems to improve energy performance and decrease energy consumption)
 - Provide information on completing a self-guided home energy audit
 - Perform a home energy audit
 - Provide a rebate for purchasing new energy-efficient fixtures
 - Encourage car share programs
 - Encourage bike share programs
 - Provide a Green Renovation Rebate (rebate for an environmentally friendly home renovation)
 - Install electric vehicle charging stations
 - Promote the use of electric bikes (currently not permitted in Strathcona County, but under review)
 - Provide a rebate on LED lightbulbs
 - Provide a kit to test for phantom power drawing from plugged in but turned off electrical items in the home or workplace
 - Provide free samples of cold-water laundry detergent to switch to cold water loads
 - Other (please indicate)
4. Wetlands are areas saturated with water long enough to support water-loving plants and wildlife. Wetlands are a vital part of Alberta's ecological landscape, and are estimated to host 400 species of plants, some of which are listed as rare, threatened or endangered. They contribute to a healthy economy and healthy communities. If you live in rural Strathcona County OUTSIDE of the hamlets, would you consider

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having a wetland constructed or restored on your land to help replace what is lost to development?

- Yes - (A Strathcona County staff member will contact you using the email you registered in SCOOP to follow up).
- No
- Unsure
- Does not apply to me

5. Our forests, wetlands, grasslands and lakes can be conserved for future generations to enjoy. Landowners can make a difference, through a conservation easement. This is a legal agreement that allows the landowner to continue to manage and own the land while protecting the future of the natural landscape forever. If you live in rural Strathcona County OUTSIDE of the hamlets, would you consider a conservation easement on your land?

- Yes - (A Strathcona County staff member will contact you using the email you registered in SCOOP to follow up).
- No
- Unsure
- Does not apply to me

6. Biological diversity (biodiversity) refers to the variety of life on the planet. It is an important measure of a healthy environment. A healthy environment with high biodiversity provides us benefits such as clean air, clean water, flood and drought protection, and raw materials such as timber. Are you interested in learning more about biodiversity in Strathcona County?

- Yes
- No (skip next question)
- Unsure

7. How would you prefer to receive information about biodiversity? Select all that apply.

- Online or in-person workshop (Skip to Q9 if selected)
- Online or in-person lectures
- Website information
- Printed brochures
- Social media updates
- E-newsletter
- Direct email

8. Please select the types of biodiversity workshops (either in person or virtually) you would be most interested in attending (select all that apply).

- Bat box construction and installation
- Backyard birding (equipment, feed, and guides appropriate to your space)
- Neighborhood naturalization (planting native plants within your neighborhood)
- Eco-scaping (selecting low maintenance native plants for landscaping in your space)

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- Backyard diversity (increasing biodiversity through planting and design in your space)
- Native bees
- Butterfly gardens
- Aquatic invasive species
- Pesticide free landscaping
- Dark Sky initiatives (selecting low light pollution design in your space)
- Meal planning workshops (selecting healthy local food for growing and eating)
- How to care for your stormwater pond (living next to a natural space)
- Other (please indicate)

9. Do you have anything else to add related to the environmental framework topic areas of air, water, land, biological diversity, or energy? (open ended)