



# CLIMATE RESILIENT KELOWNA STRATEGY

Engagement Summary

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## PURPOSE OF ENGAGEMENT

To inform citizens and invested organizations about the Climate Resilient Kelowna Strategy and to seek input on key priorities and actions to reduce GHG emissions and prepare for and adapt to a changing climate.

## ENGAGEMENT TIMELINE

September 2022 – June 2023



We would like to acknowledge that engagement took place on the traditional, ancestral and unceded territory of the syilx/Okanagan people.





# KEY THEME SUMMARY

The past five years have seen the region, most of the province, and much of the country experience the impacts of a changing climate due to wildfires, drought, flooding, heat domes and polar intrusions.

Senior government has responded to these climate impacts, and the warnings published by the Intergovernmental Panel on Climate Change (IPCC), by adopting more aggressive greenhouse gas (GHG) emission reduction targets and policy and actions to help mitigate and adapt to climate change. Recognizing these changes, and that our current Community Climate Action Plan is near its end of life, developing a new plan, the Climate Resilient Kelowna Strategy (CRKS), was initiated. While the previous plan addressed GHG emissions reduction only, the CRKS will go a step further by addressing both reductions in GHG emissions and climate resilience (i.e., actions that help our community prepare for and adapt to the changes in climate that our community projects to see now and in the coming decades).

From fall 2022 until spring 2023 the community was engaged on the development of this new strategy. The purpose of engagement was to inform and consult with the community and invested organizations about the CRKS and to seek

input on key priorities and actions to reduce GHG emissions and prepare for and adapt to a changing climate.

Most participants across the various engagement tactics utilized reinforced the importance of taking action on climate. **In fact, over 80 per cent of survey respondents felt the City's current GHG emissions reduction target (4 per cent reduction below 2007 levels by 2023) should be revised to align with or be more ambitious than the provincial target (40 per cent reduction below 2007 levels by 2030 and achieve net-zero emissions by 2050).**

Participants recognized that it won't be an easy feat to achieve these targets as they had concerns with lack of local infrastructure to make change, the community's dependency on fossil fuels, as well as concerns that there is a lack of community motivation for behavioral change.

Key themes that emerged from the engagement on how the City could support climate action include:

KEY THEMES	SAMPLE SOLUTIONS
 <p><b>Development and land use planning</b></p>	<p>&gt; More compact communities created through urban centres or land use plans</p>
 <p><b>Municipal regulations, policies and standards</b></p>	<p>&gt; Early adoption of Energy Step Code and/or Zero Carbon Step Code</p>
 <p><b>Rebates and incentives</b></p>	<p>&gt; Incentives or rebates to retrofit existing buildings for both homeowners and landlords</p>
 <p><b>Infrastructure</b></p>	<p>&gt; Expanded, safer bike lanes, increased transit frequency, more public EV charging</p>
 <p><b>Nature-based solutions</b></p>	<p>&gt; Create more parks in urban heat island areas, require more trees</p>
 <p><b>Education and information</b></p>	<p>&gt; Information on how to make energy upgrades or assistance with finding contractors</p>
 <p><b>Demonstrate leadership</b></p>	<p>&gt; Right size municipal fleet vehicles</p>

Participants also stressed the importance of climate equity and justice. Many expressed the need to continue to engage Indigenous and vulnerable community members in both the creation and implementation of the CRKS.

It should be noted that despite the overwhelming direction to take action, there were a few engagement participants who conveyed their distrust in climate change, some who felt it is a natural phenomenon, and others who felt that addressing climate change is outside of municipal jurisdiction.





# ENGAGEMENT OVERVIEW

Preliminary engagement started in Fall 2022 with a meeting with the Agricultural Advisory Committee followed by outreach to assemble an Invested Organizations Working Group and a Youth Working Group who began meeting in early 2023. The more robust engagement happened in April 2023 when open houses and an online survey allowed the public to provide their input on climate action in Kelowna.

#### **Invested Organizations Working Group:**

A group of representatives of external organizations (e.g., academia, energy utility provider, local health authority, regional government, development industry, community environmental organizations) with interest and/or expertise in climate action that engage with City staff during the development of the CRKS.

**Youth Working Group:** a group of youth representatives from local secondary and post secondary institutions with interest in climate action that engage with City staff during the development of the CRKS.

## Engagement to date has included the following:

- |  |   |
|--|---|
| <b>1</b> workshop with Kelowna's Agricultural Advisory Committee<br><i>Sep 8, 2022</i>         | <b>1</b> community survey<br><i>April, 2023</i>                     |
| <b>4</b> sessions with the CRKS Invested Organizations Working Group<br><i>Jan – May, 2023</i> | <b>2</b> open houses<br><i>April 18 &amp; 27, 2023</i>              |
| <b>4</b> sessions with the CRKS Youth Working Group<br><i>Jan – May, 2023</i>                  | <b>2</b> equity seeking focus group sessions<br><i>May 16, 2023</i> |

## PUBLIC OUTREACH

CHANNEL	REACH
<b>GET INVOLVED</b>	<p><b>Aware</b> (visited at least one page but have no taken any further action): <b>3,305</b></p> <p><b>Informed</b> (has taken it one step further from being aware and clicked on something. That could be a photo, downloaded a document, visited the Key Dates page, etc.): <b>536</b></p> <p><b>Engaged</b> (participated in one or more engagement activity. For example, completed the survey, dropped a pin on a map, contributed to a forum): <b>286</b></p>
<b>DAILY COURIER ADS</b> x1 (City in Action)	Average <b>12,000</b> readers total
<b>CASTANET ADS</b> x1	Reach is approximately <b>360,000</b>
<b>VIRGIN RADIO ADS</b> 60 x 30 sec ads	Approximately <b>157,600</b> listeners
<b>NEWS RELEASE</b> x1, PSA x1	Sent to media and put on kelowna.ca
<b>SOCIAL MEDIA (organic)</b>	
1. Info session, April 14	<p><b>Facebook:</b> 19k followers, 1 like</p> <p><b>Instagram:</b> 15.7k followers, 71 likes</p> <p><b>Twitter:</b> 20.9k followers, 613 views, 2 reposts, 1 quote</p>
2. Info session, April 18	<p><b>Facebook:</b> 19k followers</p> <p><b>Instagram:</b> 15.7k followers, 15 likes</p>
3. Info session, April 24	<p><b>Facebook:</b> 19k followers, 1 like</p> <p><b>Instagram:</b> 15.7k followers, 23 likes</p>
<b>SOCIAL MEDIA (paid)</b>	
1. April 11 – 17	Reach: 59,905 Clicks: 2,181
2. April 16 - 22	Reach: 33,624 Clicks: 1,587
<b>E BULLETINS (subscriber lists)</b>	
News Release	4400 subscribers
PSA	4373 subscribers
Environment	1400 subscribers
<b>MEDIA COVERAGE</b>	<p>Kelowna Now – April 14</p> <p>AM1150 – April 17</p> <p>CBC Interview – April 18</p> <p>Global News – April 18</p>

## Limitations

While a variety of tactics were used to reach a diverse range of citizens, input received from the survey, open houses, working groups and focus groups do not represent a statistically significant, random sample of all Kelowna citizens. Due to the opt-in and open nature of participation, results do not necessarily reflect the views of all Kelowna citizens. Advertising efforts spanned several channels, including news releases, social media, e-newsletters, and traditional media. Additional efforts were made to connect with harder-to-reach communities via the focus groups; however, traditionally under-represented groups and individuals (e.g., low income, those with health challenges, people of colour) remain under-represented in the overall results.

## PARTICIPATION AT A GLANCE

**4.5** engagement site visits



**536** informed citizens

**248** survey submissions



**77** open house participants

**~15** youth participated in Youth Working Group



**6** equity seeking focus group participants

**15** different Invested Organizations participated in working groups







# WHAT WE HEARD

A variety of tactics were used to gather input from a diverse range of people and organizations. This included workshops, surveys, open houses and focus groups.

## Agricultural Advisory Committee (September 8, 2022)

On September 8, 2022, a session was hosted with the City’s Agricultural Advisory Committee (AAC) to gather input on the agricultural sector’s vulnerability and risks due to climate change and to identify opportunities for agriculture to become more resilient to a changing climate.

Climate adaptation is a concern in the agricultural sector as outlined in the work completed by BC Agriculture & Food Climate Action Initiative’s [Regional Adaptation Strategies Update: Okanagan](#) which identified four impact areas of climate change in the Okanagan as:

- Warmer and drier summer conditions
- Changes to pest populations (insects, diseases, weeds, and invasive species)
- Increase in extreme precipitation events; and
- Increasing wildfire risk

Discussion with the committee identified some of the climate change challenges and opportunities that the agricultural sector is experiencing. These include:

- Heat impacts to crops and operations (increased need for cooling technologies, operations happening earlier in the day to avoid heat, etc.);
- Supply chains have been impacted (e.g., cost increases to inputs, climate events strand supply chains, etc.);
- Invasive species challenges (e.g., introduction of new species, and life cycles lasting longer time periods);
- Operation schedules have changed (e.g., helicopters are being used later in the season than previously);
- Higher elevation properties are being farmed to expand harvest and be more resilient to impacts; and
- Different crops planted that wouldn’t have been successful 20 years ago.

The [2017 Agriculture Plan](#) includes nine actions related to a changing climate (related to water, emergency preparedness and invasive species), in addition to these actions, the AAC provided input on other actions that may need to be considered during the CRKS development:

- Water use and water prioritization (concerns about drought, shortages, capacity and water costs);
- Agriculture's positive role in climate resiliency; and
- Environmental Farm Plan Beneficial Management Practice Program to benefit farms and ecosystems.

## CRKS Working Groups (January – May)

Two Working Groups, one of invested organizations and a second of youth representatives, were engaged in the development of the CRKS with the purpose of providing input on the CRKS goals, strategies, priorities and actions, and community engagement activities. The Working Groups purpose was to:

- Ensure diverse voices and perspectives are brought together to shape the CRKS;
- Engage community members who can assist the project team in connecting with and hearing from residents and groups who may have barriers or challenges to participating in public engagement opportunities;
- Provide a sounding board on the clarity and content of materials being developed for public engagement in the project;
- Provide input on issues and opportunities to reduce community GHG emissions related to land use, transportation, buildings, solid waste, and other local sources;
- Provide input on ways the City can plan, prepare for, respond to, and reduce the risk from climate change impacts; and
- Inspire community solutions and action.

The two Working Groups met separately, so that we could create a comfortable environment where the Youth could feel their ideas and comments would feel heard.

To date the Working Groups have met four times to discuss different aspects of climate action. Discussion topics have included:

**January 2023:** Challenges to reducing GHG emissions

**February/March 2023:** Local climate change vulnerabilities

**April 2023:** Action ideas to adapt and/or prepare for the impacts of climate change

**May 2023:** Action ideas to reduce GHG emissions

A summary of input from their sessions can be found in Appendix A. The working groups provided a wide breadth of knowledge and ideas on all topics discussed. Some highlights from the sessions include:

- **Challenges to reducing GHG emissions:** A variety of challenges were identified by both working groups including growing population, cost premiums to retrofit existing buildings or constructing new buildings, concerns about “first costs” not life cycle costs, access to transit for those who need it, affordability, lack of climate apathy, and unwillingness for community behavioral change.
- **Climate change vulnerabilities:** Working groups identified climate change vulnerabilities across four categories. It was highlighted that Kelowna has a semi-arid climate and drought can impact all four of these categories:
  - *Built Environment:* Climate hazards such as wildfire, flooding, wind, and landslides can impact all aspects of the built environment. Older buildings, those without shade, homes that still use septic tanks, and buildings surrounded by more pavement may be more vulnerable to climate hazards.
  - *Social Justice:* Many different groups were identified as being vulnerable to the impacts of climate change including those who have physical or mental health challenges, low income households, Indigenous people, those experiencing homelessness, seniors, and evacuees.
  - *Economic Systems:* Tourism, agriculture, small business, goods and services and supply chains can all experience impacts due to changing climate.
  - *Ecosystem Health:* Aquatic and terrestrial species are all susceptible to climate impacts such as smoke, warmer temperatures, drought, and loss of habitat (e.g. due to floods or fire). The groups also pointed out that because of climate change invasive species will have an impact on natural habitats.
- **Action ideas to adapt and prepare for climate change:** Both groups had numerous ideas on how to prepare for and/or adapt to climate change. Some of the common action ideas that are applicable to multiple hazards include nature-based solutions / green infrastructure, incentives, education, new regulations and policies (e.g. changes to the BC Building Code to address heat, development regulations to require large setbacks from waterways) and community supports for climate emergencies (e.g. cooling centers, wellness checks, etc.)

**Action ideas to reduce GHG emissions:** Like the adaptation discussion, both working groups had a multitude of ideas to reduce GHG emissions, particularly for the transportation and building sectors.



These ideas focused on areas such as:

- Policy and regulation (e.g., parking reductions in the Zoning Bylaw, changes to development regulations and cost charges to incent infill instead of sprawl, landscaping standards to sequester carbon)
- Incentives (e.g., to encourage landlords to make efficiency upgrades)
- Making the low carbon choice the easy choice (e.g., more frequent transit and expanded active transportation corridors)
- Infrastructure changes (e.g., road diets to incent other modes)
- Education (e.g., to promote incentives and provide support to those going through retrofits).
- Natural assets (e.g., protecting and restoring grasslands and wetlands, expanding tree canopy and more greenspace)

While both groups often had similar ideas for actions, it was noted that the Youth Working Group often brought a lens of climate equity and justice to the discussion.

## Open Houses (April 18 and 27, 2023)

In April, two open houses were hosted (one in person and one virtual) to give the public an opportunity to ask questions about the project and share their thoughts and views on climate action in Kelowna.

Sixty-five people attended the in-person session, and an additional 12 people attended the virtual open-house. At both sessions attendees had the opportunity to share their thoughts on actions to reduce GHG emissions and/or to

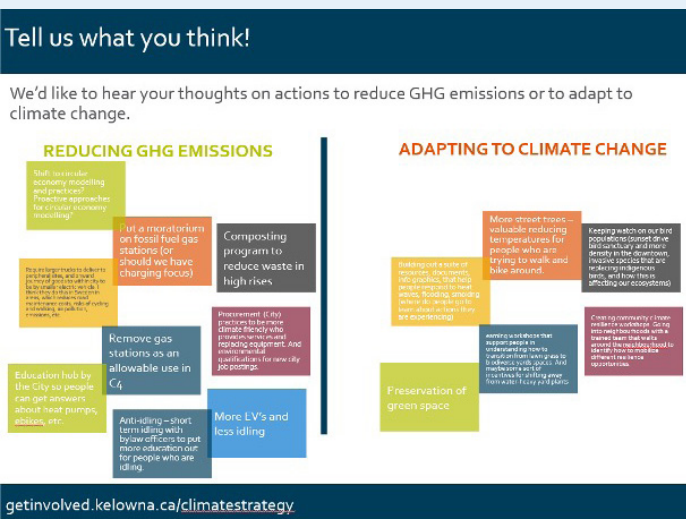
adapt to climate change.

Some of the common discussion themes included suggestions to:

- Expand/protect the urban forest and other green space;
- Take more action to reduce emissions and prepare for climate change;
- Expand and offer more frequent transit ;
- Strengthen active transportation (e.g., expanded and safer bike lanes, secure bike parking, etc.);
- Require more efficient / zero carbon buildings ahead of provincial timelines;
- Create more compact communities with amenities and services but in lower rise buildings;
- Use a multi-solve approach to develop the strategy to address multiple issues together;
- Integrate climate justice to address disproportionate harm, differentiated scales of accountability and responsibility, race, gender, class, disability etc.;
- Integrate syilx, youth and other organizations perspectives into the Strategy's development; and
- Understand the impacts of climate change on Okanagan Lake.

A list of action ideas generated from both the in-person and virtual sessions can be found in Appendix B.

## Sample of action ideas generated from in-person (left) and virtual (right) open house.



## Survey (April 2023)

The CRKS survey asked participants to respond to a series of multiple-choice, ranking, and open-ended questions related to climate hazard concerns, climate preparedness, and GHG emissions reduction. The survey sought to understand the community's feelings about the changing climate in the region and what role the City should have in reducing GHG emissions and preparing for the impacts of climate change.

Hosted on the City's Get Involved platform, 248 participants completed the survey between April 4 and May 1, 2023 (see Appendix C for information about the survey's participants). The results were analyzed using both qualitative and quantitative methods to develop a thematic analysis.

### Climate Adaptation

The climate adaptation questions were structured to discern the extent of respondents' concerns surrounding potential and existing climate hazards and impacts, and their thoughts on how the City can provide support in preparing for climate change and emergencies.

Overwhelmingly, wildfires, extreme heat, and water security were the respondents' top three climate hazards concerns. A few respondents (6 per cent) commented that it was their perception that climate change is a natural phenomenon.

Many of the respondents had personally experienced these and other climate impacts while living in the region, including:

1. Stress on plants or animals due to weather (52%)
2. Health impacts (e.g., due to extreme heat or wildfire smoke) (50%)
3. Financial impacts due to increased home operational costs (e.g., additional air conditioning during heat waves) (42%)
4. Uncomfortably hot indoor temperatures during summer months (40%)
5. Water restrictions that impacted daily decisions about water use (20%)

Interestingly, 16 per cent of participants selected "*I have not experienced any listed impacts.*" However, this may not accurately represent their lived experiences since many of these respondents also selected this in addition to other climate impacts.

Despite many respondents having experienced various climate impacts, the majority (41 per cent) feel well prepared for some but not all climate emergencies. Only 28 per cent felt extremely or well prepared for these types of events, indicating that additional action may be needed to help the community feel prepared.



### Survey feedback

77%

Participated because they cared about the topic

70%

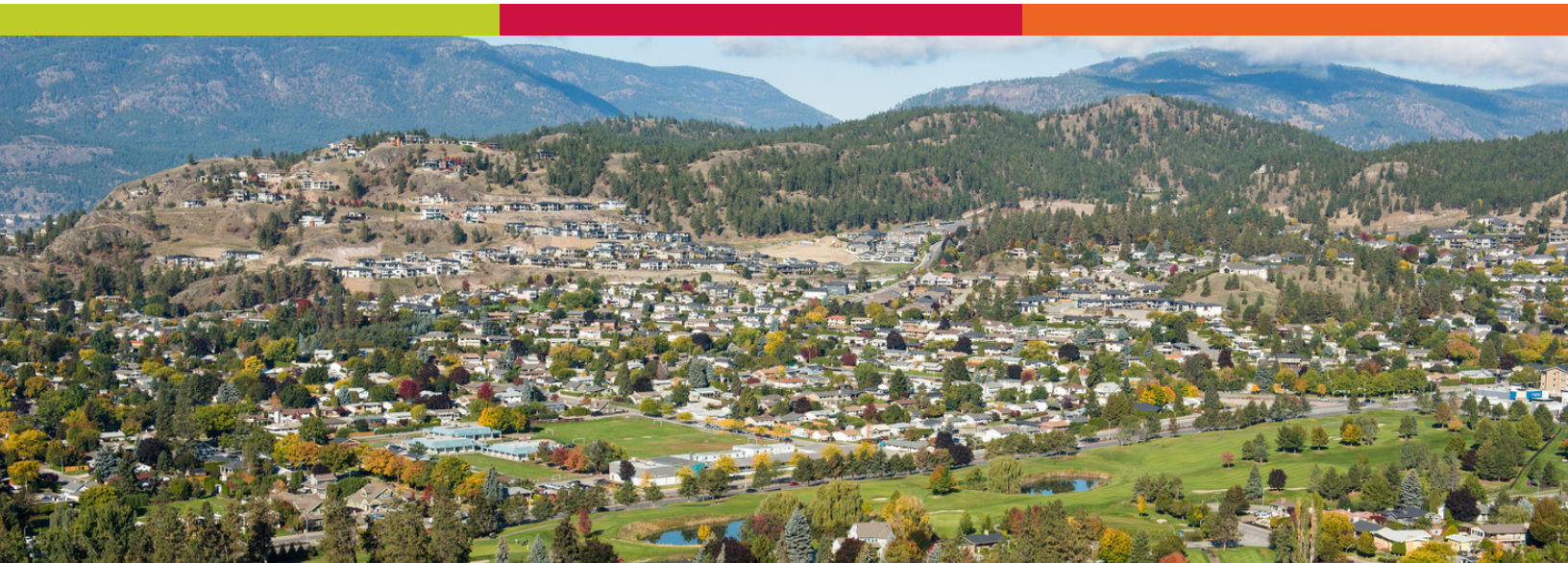
Found the information easy to understand

71%

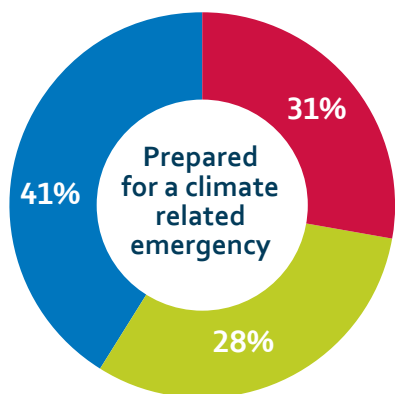
Had enough information to participate in a meaningful way

76%

Understood how their input was being used



When asked what top three areas the City should prioritize to be more prepared for climate change, the top selected response was to integrate climate change adaptation into development and land use planning (such as urban centre planning and new subdivisions). As illustrated, the remaining options were relatively evenly selected among participants. A few respondents (11 per cent) chose to add their own ideas of what could be prioritized, many of which reinforced selections offered in the multiple choice question. New ideas included nature-based solutions and Energy Step Code advancements. Two per cent of respondents added comments about their distrust in climate change and/or a perception that climate change is outside municipal jurisdiction, which highlights the need for the City to continue to raise awareness of the role that local governments can play in taking action at a local scale.



- Well or extremely well prepared
- Prepared for some, but not for all
- Not prepared or unsure

## Areas the City should prioritize to be more prepared for changes in local climate

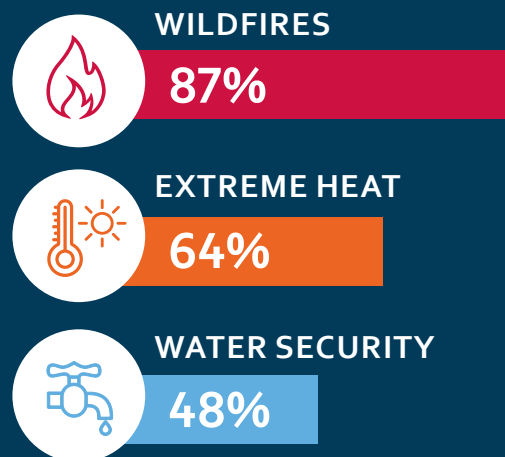
- 53%** Development and land-use planning
- 35%** Regional efforts
- 35%** Municipal policy and standards
- 30%** Rebates and incentives
- 27%** Community climate related emergency preparedness
- 25%** Funding and support for those most vulnerable to climate change hazards
- 22%** Retrofit city owned facilities and operations
- 21%** Education and information



“...when the November 2021 atmospheric river washed out the main highway between Vancouver and Kelowna, it was shocking how quickly food shelves were emptied in grocery stores due to transportation delays and disruption and how the flooding in the lower mainland impacted Kelowna.”

– Survey respondent (food security worries and strains due to climate impacts)

## Respondents’ top climate hazard concerns





## Climate Mitigation (reducing GHG emissions)

The climate mitigation questions were designed to understand survey respondents' priorities and supports needed to reduce community GHG emissions.

In 2022, Council directed staff to develop the CRKS using the same targets as the Province of BC, which aims to reduce emissions by 40 per cent below 2007 levels by 2030 and achieve net-zero emissions by 2050. Overwhelmingly, **almost 80 per cent of respondents agreed that the City's GHG emissions reduction target should align or be higher than the Province.** Only 11 per cent felt it should be lower.

The survey results conveyed that it is not easy for respondents to reduce personal GHG emissions, however 85 per cent of respondents felt it is either somewhat or very important for the City to take action to help the community reduce its emissions. The same number of respondents though had concerns about the community being able to reduce its GHG emissions due to reasons such as:

1. Lack of local infrastructure to make changes (e.g. bike lanes, transit, clean energy) **(56%)**
2. Community's dependence on fossil fuels **(46%)**
3. The personal changes made won't be enough because not enough of the community is motivated to change their behavior **(38%)**
4. The absence of relevant climate change policies and programs **(30%)**
5. The high cost associated with implementing the necessary changes to reduce GHG emissions **(27%)**

Twelve per cent of respondents chose to add other concerns including lack of community buy-in, inconsistencies with existing plans, and lack of urgency in climate response. Like other open-ended questions, there were several comments about the lack of trust in climate change and the perception that it fell outside of municipal jurisdiction.



## Areas the City should prioritize to reduce GHG emissions

**61%** Regulations, policies & standards

**48%** Rebates and incentives

**47%** Regional efforts

**40%** Demonstrate leadership

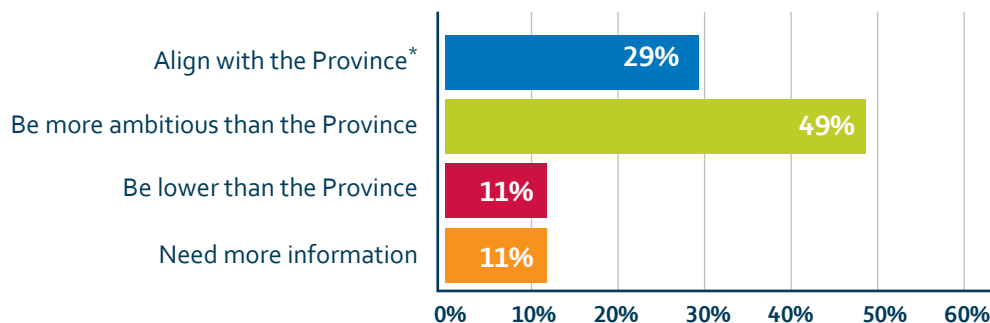
**33%** Education and information

**17%** Other

To reduce community GHG emissions respondents would like to see the City prioritize regulations, policies, and standards; rebates and incentives; and working with others regionally (business, utilities, and local government). This overlaps with the same direction provided to address climate adaptation. Seventeen per cent of respondents chose to add other suggestions for action including transportation support (e.g., better trail networks and transit services), nature-based solutions, and climate training for senior staff and officials. As with other open-ended questions, there were a few comments regarding climate distrust and/or climate mitigation being outside of municipal jurisdiction.

To reduce GHG emissions, the survey focused on two of the top three community GHG emission sources: transportation (accounting for 55 per cent) and buildings (accounting for 38 per cent).

## Survey respondents feel that Kelowna's GHG emissions reduction target should:



\* The Province of BC's GHG emissions reduction targets are 40% below 2007 levels by 2030, 60% by 2040, and 80% by 2050.

## Transportation

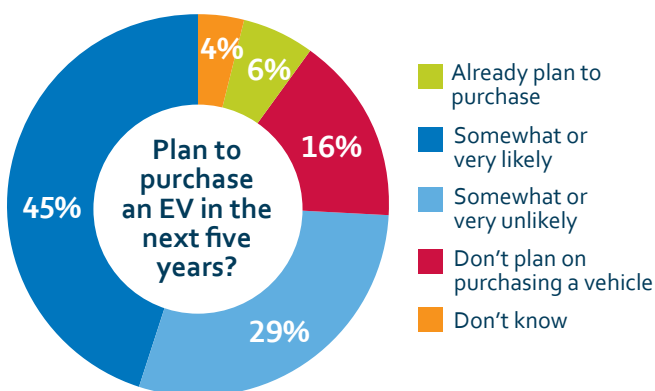
The survey asked questions to gain a better understanding for motivations to encourage more frequent use of low carbon transportation options compared to what they use now.

**Transit.** Approximately 19 per cent of survey respondents said they used transit or other active modes, while a further 15 per cent of respondents are not able or interested in using transit more often. The biggest ways to encourage more transit use are more reliable and/or frequent transit (50 per cent), more direct transit routes (34 per cent) and transit stops closer to origin or destination (24 per cent). While many of the other suggestions overlapped with multiple choice options, one other common suggestion was to improve safety at public transit spots and on public transportation.

**Active transportation.** While you would anticipate a similar response as above, only 11 per cent of respondents indicated they used active transportation or transit as primary mode of transportation (indicating confusion with the way the survey was worded). Compared to transit, there is more interest in active transportation as only eight per cent of respondents indicated that they were not able or interested in using active transportation more. More dedicated bike lanes and/or multi-use paths was the top recommended action to encourage more active transportation.

**Electric Vehicles (EVs).** Over half of respondents were either somewhat, very likely or already plan on purchasing an EV for their next vehicle in the next five years. Top actions that would help encourage the future purchase of an electric vehicle include help with upfront purchase costs, more public charging, and longer range EVs.

Nearly 21 per cent chose to add suggestions of their own, many of which echoed the options provided in multiple choice selections. However, over one quarter of the other ideas provided included concerns about the technology, ranging from apprehension to lithium mining and battery recycling to the practicality of EVs in Canada's climate.



“Having moved back from Vancouver, I’ve noticed a huge stigma here that only poor, homeless, dirty, mentally unwell, or dogmatic people take transit. That using the bus is often laughed at and scoffed at. It’s also seen as inefficient and unreliable. The majority of the local population don’t even consider it an option for getting places.”

– Survey respondent



### Top recommended actions to increase active transportation

- 43% More dedicated bike lanes
- 35% Better protection against bike theft
- 31% More direct walking/cycling routes
- 21% Snow cleared bike lanes
- 17% Electric bike incentive



### Top recommended actions to encourage transition to EVs

- 40% Help with upfront purchase costs
- 37% More public charging
- 35% Longer range
- 23% Availability of at home charging in condos and apartments
- 22% Easier access to used EVs

## Buildings

The questions regarding building energy efficiency and low-carbon upgrades aimed to gather insights into the perception of homeowners, renters, and youth regarding the energy performance of their homes, retrofit priorities, and the support needed to carry out upgrades. Depending on tenure, different types of initiatives may be needed to encourage energy and carbon retrofits.

**Renters.** Renters represented less than one fifth of respondents and many of them did not have an understanding of the efficiency of their home (24 per cent). A further 24 per cent of renters stated the energy performance of their home was below or far below average.

The top three supports selected by renters for improving efficiency of rental homes:

- Incentives for landlords to complete upgrades **(29%)**
- Ensuring new rental buildings are built with high energy efficiency standards **(26%)**
- Regulations requiring energy saving or low carbon upgrades **(21%)**

For youth living with family (21 per cent of respondents), only 10 per cent perceived their homes to be below average energy efficiency. This group of respondents did not provide input on supports to improve energy efficiency.

**Homeowners.** Nearly 60 per cent of respondents were homeowners, and over 43 per cent of them are planning home renovations in the next five years (with a further 27 per cent unsure about future home renovations). Nearly 90 per cent of homeowners said they were likely or somewhat likely to consider energy efficiency and resilience improvements as part of future upgrades.

The top three supports selected by homeowners to assist in implementing energy efficiency and resilience improvements were:

- Help with upfront costs (e.g., incentives, grants or financing) **(58%)**
- Information on how to make some of the upgrades on their own **(12%)**
- Assistance with finding contractors who could make the upgrades **(9%)**






Homeowners were asked about types of upgrades they were interested in to improve their home's efficiency (and consequently reduce GHG emissions) as well as to help prepare their home to the impacts of climate change. Many of the upgrades homeowners are interested in can both help reduce GHG emissions and prepare for climate change. While FireSmart upgrades had low interest at the time of this survey, it would be interesting to know if there will be more interest following the recent devastating fires that happened in the region this summer.

Many of the open-ended responses indicated that some homeowners had already completed home retrofits, while others who lived in condo buildings noted they were unable to undertake the listed retrofits due to building regulations.

An overwhelming number of homeowner respondents (72 per cent) have conventional natural gas, heating oil, or propane for space and/or water heating. Only a third of these respondents were somewhat or very likely to switch to a lower carbon option in the next five years. The top three supports that could encourage fossil fuel users to transition to lower carbon fuels were:

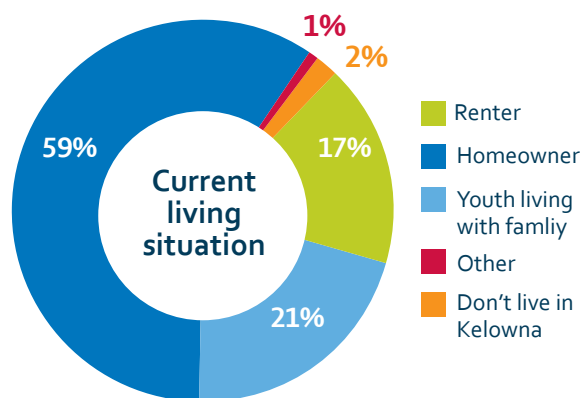
- Help with upfront costs (e.g., incentives, grants or financing) (74%)
- Assistance with finding contractors (33%)
- Help with keeping operating costs low (e.g., insulation, air sealing, etc.) (33%)

Other suggestions included reduced upfront capital costs, additional support for strata bylaws, and improved heat pump efficiency to accommodate Kelowna's colder climate.

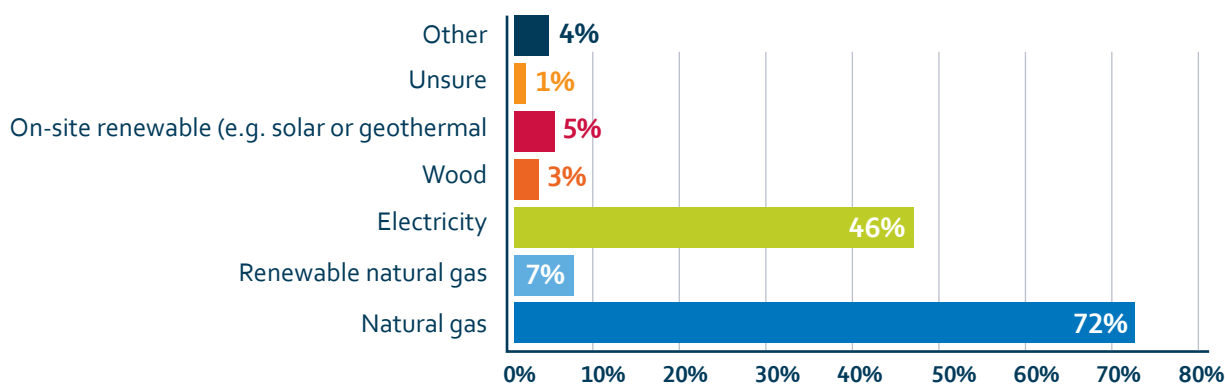


## Upgrades homeowners are interested in

- 42% Efficient windows and doors
- 39% Renewable energy system (e.g., solar)
- 36% Plant trees
- 32% Improved insulation
- 31% Heat pump
- 24% Efficient appliances
- 19% Low-flow showers, faucets and toilets
- 9% Fire smart



## Energy used for space and/or water heating



## Supporting an Equitable Transition

The final open-ended responses revealed a prevalent theme, which emphasized the importance of building community-wide support by involving all members in decision-making and solutions development. Many participants expressed the need to actively engage vulnerable community members and Indigenous communities in the creation and execution of the CRKS. This recommendation aligned with the findings from the co-benefits question, where health and well-being emerged as the most frequently selected co-benefit, chosen by 68% of survey respondents.



“Do as you have done here, include the community in decision-making and active participation.”

“Make sure to consider and consult marginalized and low income groups when making decisions.”

“Begin with compassion for those at greatest risk.”

“Do not put the cost of this on those of us who are struggling financially.”

“Provide better education and incentives about retrofitting, planting trees etc. so that it is accessible to lower incomes too.”

—Comments from CRKS Survey Respondents

## Focus Group

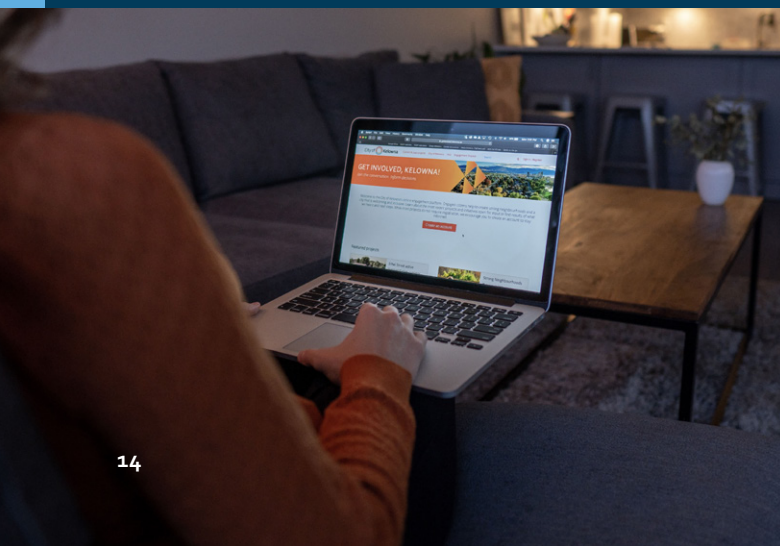
(May 16, 2023)

Two virtual CRKS equity focus groups were hosted on May 16, 2023 to gain a better understanding of lived experiences of equity seeking community members. Organized by the City’s consultant for the CRKS (Sustainability Solutions Group - SSG), without any participation from the City, the focus groups allowed for feedback and participation to be anonymous. This enabled participants to share authentic and valuable insights into how climate change affects their lives, including unique vulnerabilities, strategies, and community perspectives.

Twenty-two organizations and/or individuals involved in equity-related issues or belonging to equity-seeking groups were invited to participate in one of the two focus groups. These groups were contacted based on pre-engagement input, online resources, and/or expressions of interest through the Get Involved webpage. Between the two virtual equity focus groups, a total of six individuals participated. Although a formal demographic analysis was not conducted, participants voluntarily self-identified as representatives of various groups, including mobility-limited and people with disabilities, new immigrants, members of Black, Indigenous, and people of colour (BIPOC) communities, and senior citizens. It should be noted that the focus groups were not designed or intended to serve as a representation of all equity-seeking community members in Kelowna, therefore, the results cannot be extrapolated to represent the views of the entire community.

The sessions were designed to encourage active participation and collaboration in a safe space to allow hosts to uncover the connection between climate change and other social, economic, and environmental factors affecting participants. The roundtable discussion focused on three questions:

1. What climate hazards are you most concerned about and why?
2. What actions have you taken to prepare for climate change, and how can the City support action?
3. What outcomes do you hope the CRKS will achieve?





## What We Heard

The following qualitative analysis of the focus group summarizes feedback by key themes.\*

### **Highly impacted community members and vulnerable community members should be included in the CRKS decision-making process.**

Participants voiced the need to enhance engagement with community members who are highly vulnerable to climate change and who may bear a disproportionate burden from climate action. They expressed concern about the inadequate representation of these communities in Kelowna's current decision-making process and underscored the significance of their inclusion in future efforts. While acknowledging the value of the focus group as an initial step toward inclusivity, participants emphasized the necessity of ongoing consultation to avoid imposing disproportionate burdens on equity-seeking communities throughout the development and implementation of the CRKS.

### **Equity-seeking community members face unique and diverse challenges.**

Participants emphasized the unique challenges faced by vulnerable community members. One participant highlighted their vulnerability to extreme heat due to their disability, expressing concerns about power outages and advocating for strategies that prioritize grid resilience. They also recommended the provision of programs to support vulnerable community members in accessing cooling centers and backup generators.

Another participant, a senior citizen, shared their experience of feeling unsafe while riding a bicycle. They expressed a desire to reduce reliance on their vehicle but noted that

\* Please note that quotes are not verbatim, but based on detailed notes. Some quotes have been lightly edited for clarity.



The majority of people making decisions are least impacted by climate change, the people most affected by climate change are not being represented in the decision-making. I know what SSG is doing with these focus groups is an amazing first step, and I hope we can overcome the barriers for participation from those communities who are being most impacted.”

– Focus Group 1 participant

“I want to be able to see a just transition, that we are including more people and vulnerable people in the decision-making process. I don't want to leave anyone behind because we are all vulnerable in one way or another.”

– Focus Group 2 participant

“In collaboration with Interior Health, a program could be created to prioritize people in geographical areas. Crisis prevention officers or consultants could be used to prepare people ahead of time, for example they could go to seniors' buildings and take assessments of their emergency preparedness and raise awareness of that building's emergency response plans.”

– Focus Group 2 participant





“I feel an urgency, I feel the city should be engaging with a climate emergency plan for a safe pathway to 1.5C.”

– Focus Group 1 participant

“We cannot be afraid to do [the climate actions] now. We need written direction on what we can do now.”

– Focus Group 2 participant

“... let’s not do thousands of surveys and talking. People have learnt that green roofs can go elsewhere and it can work, get programs that can work in other communities and get them moving here. ...I would like to see urgency at the City, to see them listen to science and what works elsewhere.”

– Focus Group 1 participant

existing bicycle lanes do not adequately support safe active transportation options for seniors. They highlighted the importance of street designs and a culture of mutual respect to create a safer biking environment. Transportation concerns were also discussed for individuals who rely on public transit to commute. One participant, who relies on public transit to commute shared that despite living on a direct bus route, their commute has been frequently disrupted by climate events.

In addition, strategies specific to community members with disabilities and senior citizens were discussed in both sessions. For instance, a participant who cares for a senior relative mentioned that their family member lacks access to a smartphone and therefore doesn’t receive emergency messages. They suggested a tailored approach, such as crisis prevention officers who can provide outreach to senior and support homes prior to an emergency.

### **Climate change is an urgent issue that requires immediate action.**

Despite the diverse range of actions and supports prioritized by focus group participants, a common underlying theme emerged: a sense of urgency. One participant shared their transition into an advocacy role during retirement, driven by the desire to secure a safe future for their grandchildren.

Numerous participants emphasized the importance of taking immediate action and highlighted the need for swift development and implementation of a comprehensive plan that draws on best practices from successful initiatives in other communities. In the face of a climate emergency, participants expressed that it is imperative to rely on scientific evidence and act swiftly.



## Financial support is necessary for low-income groups to participate in climate actions.

Participants explained that the cost of climate actions are expensive and lower-income groups will need financial support and incentives to participate. Participants said existing rebate programs are not suited to the needs of low- and middle-income groups because they cannot afford to pay for upfront capital costs or long-term maintenance.

Additionally, one participant highlighted the interconnectedness between affordability, housing insecurity, safety, and climate change.

## Information about the CRKS needs to be accessible and transparent.

Multiple participants expressed the need for clear communication strategies to educate community members about mitigation and adaptation actions included in the CRKS, specifically emphasizing the importance of making this information available through various channels such as newspapers, social media campaigns, and peer-to-peer outreach.

Participants also mentioned the importance of establishing dialogue between Councillors and staff to address the perceived lack of information sharing. They suggested the formation of an advisory committee consisting of knowledgeable individuals who already live and work in the community, including experts from local organizations and University of British Columbia Okanagan (UBCO), to provide valuable insights and resources to both staff and councillors.

Furthermore, participants noted that communication efforts should be inclusive and considerate of different segments of the population. They highlighted the need for language that is easily understood and accessible to ensure that information related to climate preparedness reaches and resonates with these communities.

Finally, they highlighted the desire to hear about the CRKS' annual success and progress, such as an annual GHG and adaptation report.



“We wanted an EV but it wasn’t feasible. If the government wants to see lower income and middle-income families move to EV purchasing then the rebates need to be available for them to do this.”

– Focus Group 2 participant

“Majority of people are dealing with other issues such as affordability and insecurity, and safety. It was clear during the last municipal election that these issues were top concerns for community members. In my mind, these are all very interrelated issues and are related to climate change. The strategies we develop need to address the intersection of these concerns.”

– Focus Group 2 participant





# NEXT STEPS

The information gathered through the various engagement activities will be used to inform the draft Climate Resilient Kelowna Strategy.

Once the draft strategy is reviewed by Council, the public will have a final opportunity to provide input on the draft content and recommended actions before a final Strategy is presented to Council for endorsement.



# APPENDIX A

## CRKS Working Groups Input

To date, the Interested & Affected Organizations Working Group and the Youth Working Group have met four times each. Below is the input received from each of the sessions.

### January 2023 Workshops

#### CHALLENGES TO REDUCING GHG EMISSIONS

Interested & Affected Organizations Working Group Responses	Youth Working Group Responses
<b>BUILDINGS</b>	
<ul style="list-style-type: none"> <li>• Housing affordability is a challenge</li> <li>• Building retrofits are costly and not a priority for homeowners</li> <li>• Training for builders, and trades for higher level of step code</li> <li>• City Communications can play a bigger role in promoting retrofit incentives,</li> <li>• Manufactured home manufacturers are not considering efficiency at all.</li> <li>• Improve home energy efficiency in the short term, as they will be around 50+yrs.</li> <li>• Cost premium on capital projects to build to higher standards. Often developers concerned about “first costs” and not life cycle costs. See UBCO example <a href="https://www.zebx.org/skeena-residence/">https://www.zebx.org/skeena-residence/</a></li> <li>• Taller, denser buildings are a good priority, but not a solution unto themselves. Extensive green/community space, parks, gardens, playgrounds, multi-modal transport, traffic calming/ reduction needed</li> </ul>	<ul style="list-style-type: none"> <li>• Growing population causes more GHG emissions and waste from construction.</li> </ul>
<b>TRANSPORTATION</b>	
<ul style="list-style-type: none"> <li>• UBCO modelled and came up with very similar trends as community GHG emissions modelling. Transportation due to commuting was also the largest source of emissions for UBCO (55%). UBCO's key reduction strategies are around transit service, improved active transportation infrastructure, updated parking price models to disincentivize single vehicle use.</li> <li>• Transportation should be a focus since they account for 55% of emissions</li> <li>• Transportation should be a focus since they account for 55% of emissions</li> <li>• More focus on public and active transportation (getting people out of their cars)</li> <li>• Promote solar panels in combination with EVs</li> <li>• Working from home data available from Census and shows increase comparing 2021 and 2016</li> </ul>	<ul style="list-style-type: none"> <li>• Behavior/ perception towards public transit - many people don't like and critique efficiency of transit – or positive perception as long as they don't have to use it.</li> <li>• Transit strikes impacts many. Public transit justice is climate justice.</li> <li>• People want better transit system if it doesn't get in the way of cars.</li> <li>• The people who need transit sometimes don't have access. Transit along main roads is also along more expensive homes, so those that can't afford housing are further away from transit.</li> <li>• Make pedestrian and bike travel more comfortable for people (e.g. don't shovel snow onto bike paths in winter)</li> </ul>
<b>WASTE</b>	
	<ul style="list-style-type: none"> <li>• People's consumptive lifestyle that ultimately ends up in the landfill. (e.g., could use sharing economy)</li> <li>• Repurpose some of the “waste” food to feed those less fortunate or distribute back to farmers for feed.</li> </ul>

## Interested & Affected Organizations Working Group Responses

## Youth Working Group Responses

### OTHER

#### Data and modelling

- Availability of data and models to accurately quantify the behavioral responses to plans and policies

#### Energy use

- Concerns models don't take into account increase of electricity use for vehicles and how this could cause electricity that is generated from fossil fuels and isn't as "clean"

#### Natural Environment

- Removal of trees (particularly old, well-established ones)

- Food deserts in some parts of Kelowna leads to transportation emissions
- Action to reduce GHG's requires social change which requires effort and discomfort.
- Many people don't see climate as a big issue.
- The public doesn't care enough
- Poverty doesn't allow people to be more sustainable. There is a big homeless problem in Kelowna, if there were more affordable housing options, then people would have more available funds to invest, improving quality of life, etc. More choices for everyone, not just the wealthy.
- People rely on others to make the change instead of themselves.
- Culture change needed. Make the eco-friendlier option more convenient option.
- Have broad community involvement in plan development to get buy in.
- Fast fashion has big impacts on our planet
- Support traditional Indigenous knowledge (e.g., prescribed burning to reduce wildfire)

## February/March 2023 Workshops CLIMATE CHANGE VULNERABILITY DISCUSSION

### Interested & Affected Organizations Working Group

#### BUILT ENVIRONMENT

- Vulnerable to wind
- We need wetlands to mitigate flood damage
- Air quality exposure based on location
- Active cooling will add more heat to environment creating positive feedback loop
- Pavement creates heat island
- Rutland Waterworks aquifer
- Landscaping impacts water consumption –
- Natural gas reliance influences climate and air quality
- Buildings & infrastructure (natural and human built) at risk when in flood/fire or fire zones
- Areas that still use septic tanks
- Homes that are in sprawled areas of City
- Buildings with poor ventilation or without shade
- Older buildings
- Drought – we are in a semi-arid environment

#### SOCIAL JUSTICE

- Those with no air conditioning – or lower income may not be able to install or operate
- People's health being outside during smoke or heat events
- Eco-anxiety and mental health
- Seniors & those with low socio-economic status
- Those with chronic disease or health or mobility challenges
- Youth, children, and infants (also from a mental health perspective)
- Indigenous
- Food security (especially for lower income)
- Low-income homes have the least resources and ability to adapt to or recover
- Evacuees
- Homes on slopes

#### ECONOMIC SYSTEMS

- Goods and services / supply chains
- Small business impacts
- All major disruptions cause economic challenges/risks for tourism, agriculture, insurance, government, utilities, etc.
- People may not move here
- Invasive mussels could impact lake, water, economy,
- Impact on source water protection
- Food security
- Cost of hydro goes up

#### ECOSYSTEM HEALTH

- Heat and wind stress to existing trees
- Smoke stresses wildlife
- Invasive species tough on natural habitats
- Water management affects fish habitat
- Aquatic species due to warmer water temperatures
- Fires will speed up ecosystems shifts to grasslands
- Loss of crops and natural plants
- Natural habitats destroyed during floods
- Need to use more natural infrastructure methods

## Youth Working Group

### BUILT ENVIRONMENT

- Wildfires and its damage to homes and other built structures
- Powerlines
- Flooding/homes
- Infrastructure damage to roads/buildings - landslides

### SOCIAL JUSTICE

- Elderly citizens
- Those who experience homelessness
- Those who experience poverty
- Those experiencing health issues
- Blocking off vulnerable people
- Children unable to play outside
- People with limited accessibility
- Measures used to protect against disease harming those with mental health struggles
- Wildfires effect on seniors and children

### ECONOMIC SYSTEMS

- Orchards, farms, general agriculture
- Tourism
- Invasive species – agriculture
- Increased expenditures to help reduce heat or in terms of using more air conditioning and challenging power systems and grids
- Extreme heat will affect the salmon spawn, the fishing industry of the lake
- Extreme heat – Kelowna has a lot of annual crops (cherries, apples, etc.) and many of those crops depend on colder temperatures to 'wake them up'.

### ECOSYSTEM HEALTH

- Kelowna ecosystems already quite dry and affected by wildfire
- Trees ripped out or damaged leading to loss of habitat
- Extreme heat – salmon require a very specific temperature
- Wildfire – change the local microclimate impacts species health and soil
- Invasive species like shrimp and muscles in the lake
- Wind/landslides/flooding erosion affects the soil and what can grow , leads to increased disasters due to positive feedback
- Animal, plant, and habitat loss

## April 2023 Workshops CLIMATE ADAPTATION ACTION BRAINSTORM

### Interested & Affected Organizations Working Group Responses

#### EXTREME HEAT

##### Recommended top priorities

- Building retrofit programming and financial supports
- Create a tool to calculate heat island contribution for each development and then requirement to offset this contribution
- Public communication and education about managing heat at home and work (HARS tool from BC Gov't)
- Green infrastructure bylaws
- Nature based solutions
- Require solar PV ready on new development

##### Other responses:

###### Buildings:

- Accelerate Energy Step Code/low carbon building technologies
- Consider cool roof technology
- Shade for buildings (e.g., awnings, overhangs)
- Require passive cooling (building orientation, limit windows, etc.)

###### Education

- Educate NIMBYs why more densification is needed despite heat island

### Youth Working Group Responses

##### Top priorities not discussed

##### Other responses:

###### Buildings

- Solar incentives (dual benefits with shading)
- Utilize materials in construction that offer cooling benefits
- Advocate to BC Government to incorporate heat into BC Building Code
- Offer incentives for heat pumps or solar for businesses

###### Education

- Help public understand heat risks
- Communication strategy for anticipated heat
- Communicate where people are (not just email)



**EXTREME HEAT (CON'T)**

**Emergency Response**

- Municipal cooling centres in high-heat areas, or areas of more at risk people
- Entertainment at cooling centers
- Free transit during heat
- Wellness checks by neighbourhood associations or delivery services
- Support for emergency workers to manage heat during heat waves and heat domes
- Utilize unused facilities (e.g. schools, churches, conference centers)

**Green infrastructure & natural solutions**

- Ban cedar hedges
- Required development to work around existing large trees
- Encourage green roof gardens and incentives
- Establish a soil bylaw to have volume requirement for tree planting
- Require shade trees be planted on north side of building
- Incorporate shade in parks
- Increase required percentage of park/green land in new development
- Return vines to buildings as a way of cooling
- Species at Risk Habitat Analysis
- Tree bylaw
- Increase canopy coverage

**Other**

- Energy Choices that are carbon neutral
- Increase lake access
- Solar panel shades for unshaded parking lots
- Use underground parking instead of surface to reduce the amount of paved surfaces

**Emergency response**

- Extreme heat kits
- Raising awareness of cooling centers
- Provide supports for those who are vulnerable or experiencing homelessness
- Policy for the new Parkinson Recreation Center to act as a cooling or warming center.
- Partnership with BC transit to have buses with frequent routes to cooling centers

**Green infrastructure and natural solutions**

- Use City purchasing power to buy land assembly and building a park in known heat areas or lakefront for additional cooling
- Incentivize people to plant clover, and move away from lawns
- Ensure trees are included when building new infrastructure

**Other**

- Incorporating CVRA findings into new infrastructure projects
- Provide shade at transit stops
- Policy or bylaw to include the heat impact of a project, for example as another component of an environmental impact assessment

**FLOODING**

**Recommended top priorities**

- Building codes to include flood-proofing measures in identified high-risk areas
- Supports and programming for building retrofits for flood-proofing measures
- New infrastructure to retain large flood events (i.e. parking lots to serve dual function). Permeable surfaces to be integrated into new development approvals.

**Other responses:**

- Critical impact of environmental integrity (i.e.. Creeks and riparian areas) to be integrated into upstream preparedness
- Co-benefits of infrastructure + flood mitigation
- Consideration to partner with the RDCO re: business continuity planning for disaster re-build and emergency response
- Partner with the Province to understand downstream geotechnical hazards and risk of logging
- Tree planting adjacent to creeks to mitigate flooding
- City to have first right of purchase of houses that have flooded - or in a flood zone
- Requirement to tell buyers a house is in a flood zone

**Top priorities not discussed**

**Other responses:**

- Policy for erosion and soil stability
- Policy for setback from streambanks
- Supports for water quality advisories (e.g. access to clean water), and educate in advance so people are aware and know where to get it. (consider equity – people who can't carry water, who don't have a car, etc.)
- Work with sylix experts on creek restoration to help prevent flooding
- Street sweeping sand reuse for flooding
- Incentivize to plant along streams

## WILDFIRE

### Recommended top priorities

- Implementation of the 2022 Community Wildfire Resiliency Plan
- Forest management for public lands
- Expand air quality notifications
- Education campaigns to encourage fire and evacuation preparedness
- Building Design Challenge for climate zone readiness (homes of tomorrow that are climate ready)

### Other responses

- Evacuation routes and pre-planning of subdivisions to be more comprehensively resourced and completed
- Consideration of those residents that are housed in areas of the city that are high risk and do not have access to a car.

### Top priorities not discussed

#### Other responses:

- Like cooling centers, but for AQ events (using schools?)
- Better transit and transit stops to protect from poor air quality
- Incorporate syilx knowledge about fire and strategies
- Partner with Lake Country to ensure the Knox Mountain to Lake Country Corridor has fuel mitigation
- Utilize new ways of educating people (e.g. UBCO Fire Knowledge podcast)
- Provide options for activity during air quality advisories (balance AQ with access to recreation) – concerns about youth mental health aspects of smoke or extreme heat as can't go outside.
- Better understanding of vulnerable areas in terms of wildfire response (not just exposure) (let people register so there is an indicator where vulnerable people are to provide supports during evacuation)
- Severe air quality warning messages

## WATER SECURITY

### Recommended top priorities

- Water use regulations
- Green Infrastructure bylaw to purchase lands for dual purpose (i.e.. Floodwater retention) and/or serve as wetlands for filtration
- Energy score for MLS attributes to elevate purchasers knowledge (fire/flood ready for home purchase)

### Top priorities not discussed

#### Other responses:

- Incentives to not use grass, combined with education and awareness
- Having business be aware of benefits of night irrigation, etc.
- Accountability on businesses not just households for water use restrictions
- Priority for water distribution (where does water get saved first, or who gets priority to water if it is scarce)

## OTHER HAZARDS

- Limit development that doesn't increase risk of landslides
- Support those that are growing food locally
- Building retrofit programming and financial supports

# May 2023 Workshops

## GHG EMISSION REDUCTION ACTION BRAINSTORM

### Interested & Affected Organizations Working Group Responses

### Youth Working Group Responses

#### TRANSPORTATION

##### Consultant recommendations

- Implement land use policies from the 2040 OCP
- Continue improving public transit service delivery
- Expand protected bike lane network
- “Right-size” municipal fleet vehicles
- EV-ready requirements in Zoning Bylaw for new construction
- Restrict drive-throughs

##### Recommended top priorities

- Implement WFH policy for city and other employees to reduce trips
- Road diet to incent other modes
- Parking reductions to be updated in the ZBL
- Improved transit service to YLW
- Free transit downtown and/or free transit on weekends to increase ridership
- Free transit for those up to 18 (rather than 12) to encourage more students to embrace this as a primary transportation mode
- Strive for complete streets in accordance with the ‘Complete Streets for Canada’ guide.
- Expand active transportation trails to enhance connections for pedestrians and cyclists
- Explore light rail (hydrail) system to be explored.

##### Other responses:

##### Trip Distance Reduction

- Implement land use policies from the 2040 OCP
- 4 day work week to be implemented by City of Kelowna
- Create more dog friendly parks so people don’t have to drive as far
- Look at zoning change in urban core periphery areas to allow more retail/restaurants

##### Transit

- Make transit on-demand, expand car sharing-smart transit
- Subsidize transit passes for major employers
- Coordinate school bus and public transit expansion
- Improve transit frequency for main routes
- Incentivize transit/bike use

##### Active Transportation

- Host free bike tune up events
- Create safe, secure bike storage
- Increase bike lane cleaning
- Protect the rail trail from road expansion
- Expand Rail Trail to connect communities
- Increase number of bike lockers required and/or secure bike storage instead of parking in Zoning Bylaw
- Encourage e-bikes for more than recreation
- Make cycling friendly neighbourhoods
- Are ebikes displacing emissions or adding be increasing energy use

##### Vehicle Efficiency & Fuel

- Truck depot – don’t have large trucks make small local deliveries
- Power supply study by City / BC Hydro / Fortis to explore electricity and demand
- Solar panels on new residential units for at home EV charging (also for pool heating)
- Electrification of school bus fleet
- Curbside charging along road RoWs

##### Top priorities not discussed

##### Other responses:

##### Transit

- Phase in electric buses as you replace aging buses
- Generate low carbon credits and then invest them in buses
- Make buses more accessible in times of extreme heat
- Make buses less expensive
- More frequent transit
- Create more efficient lines to get places
- Figure out which routes are busier and increase frequency on those (when there are too many people on a bus it takes longer to get where you are going)
- Take away stigma of using transit (common thought if you are on a bus you are poor or a student)
- Make buses nicer/more attractive
- Park and ride programs – creating a place where there is a free safe program. Or incentivize it, secure parking and free busing somewhere (e.g., somewhere close to the 97 or park and ride in the new capri).

##### Active Transportation

- More streets like Ethel with protected bike infrastructure away from cars
- Focus on infrastructure for biking and sidewalks
- Safe bike storage and bike secure safety technology that doesn’t put the costs on users (people don’t feel comfortable bringing bikes downtown. EV’s are incentivized and people that have those are already privileged)
- When designing new parks or buildings include safe, secure bike parking
- Incentives for taking bike over car
- Have SD23 more equal opportunities at each school so don’t have to commute (e.g., KSS only has certain programs that other schools don’t so students have to commute)

##### Vehicle Efficiency & Fuel

- Challenges for younger people to have access even to used EVs due to costs



**TRANSPORTATION (CON'T)**

Other

- Commit to Clean BC target 50% mode shift to sustainable transport by 2050
- Increase car-share programs/opportunities
- Traffic calming in urban cores
- Build for people not cars
- Continue investments in micro-mobility
- Restrict drivethroughs
- Low carbon credits to be implemented to incentivize EV charges in existing MURBs
- DCCs or other financial incentives to onboard new

**BUILDINGS**

**Consultant recommendations**

- Require higher steps of Energy Step Code and/or Zero Carbon Step Code (in advance of provincial timelines)
- Create incentives for developers building to net-zero emissions
- Advocate for home energy labelling at time of lease or sale
- Develop pre-approved list of contractors for deep retrofit work
- Promote energy benchmarking
- Retrofit all municipal buildings to net-zero standards

**Recommended top priorities**

- Look at revising DCC and property tax. DCC should be based on size of land, intended use, not per door (see Kamloops as example that charges per lot)
- Incentivize retrofits for windows for shade from the outside (e.g., in Europe use external roller blinds)
- Full time communications staff to educate the public on what is available for incentives, how they work, etc. to make it easy to understand (or partner with non-profits to get message out)
- Focus on what you want us working on tomorrow

**New Buildings**

- Look at property tax structure on intended use of land and not what the land currently does (e.g., if Walmart uses for parking instead of mixed use then tax them higher)
- Reduce DCCs for non-profit organizations to create more affordable housing
- Build to accessible standards so people can age in place
- Incorporate shading into new buildings to reduce heat load
- Incentivize xeriscaping climate-ready landscaping
- Set a target to reduce embodied emissions by 40%
- Support for electrification (e.g., minimum EV charging station requirements in new condo/housing)
- Build a workforce for zero emission buildings
- Increase housing above single story commercial
- Climate labelling

**Existing Buildings**

- Eliminate fossil fuels from existing buildings through building performance standards with carbon pollution requirements and fossil fuel free time of replacement requirements
- Advocate for PACE funding
- Major incentives for landowner retrofits
- Consider energy efficiency as part of renovation (like City of Vancouver does)
- Incentive (or stick) for updates to older apartments
- Solar panels over parking lots
- Subsidize BC Hydro's and Fortis' ECAP

**Top priorities not discussed**

**New Buildings**

- Use recycled or low carbon materials (or incentives to reuse materials)
- Green roofs that have native plants
- More greenery around buildings
- A standard for all city buildings to meet a certain low carbon / energy efficiency level (practice what we preach)
- Share with public how green tech on civic buildings has saved

**Existing Buildings**

- Visibility of solar panels – it's a symbol
- Trees along buildings
- Incentives to reduce phantom power
- Incentives for landlords – so that younger people living there benefit from the utility saving
- Incentives that are realistic for the community (e.g., Instead of only incentivizing the highest energy efficient windows, maybe a slightly lower efficiency that is more affordable to more people)
- Building optimization (don't power/heat buildings if not fully utilized, or use office buildings that aren't being used for housing)
- Incentivize businesses which use more energy than a household

**BUILDINGS (CON'T)**

- Make incentives bigger and criteria more achievable, e.g., Energy rebates, EV rebates
- Support vendors in marketing/communicating incentives
- Facilitate a network of businesses to provide a continuum of support for implementing building decarbonization/efficiency
- Map building “leverage points” where other changes can be made
- Have an updated list of the top items that should be retrofitted even if they are operational

Other

- Increase renewable natural gas for heating (examples in Alberta)
- Parking minimums to also help with affordability
- Make builders build around trees to help reduce GHG emissions
- Start, try, and then improve. Do the best you can until you know better then do better (Maya Angelou)
- Total carbon intensity threshold
- Bulk buy facilitated by the City (e.g. Ebikes, heat pumps, rain barrels)

**WASTE**

**Consultant recommendations**

- Create incentives for developers to achieve 50% waste diversion rate
- Explore opportunities to partner with community organizations or businesses to develop a community reuse center
- Educate residents on waste diversion and reduction opportunities
- Build an anaerobic digestion facility for methane recovery from wastewater

Diversion

- Community composting of kitchen waste
- Food security – using the food to get to people that need it before waste (City of Revelstoke has good program)
- Smaller composter incentives for smaller families/units
- De-construction programs and policies (recycle building materials)
- Product specific life cycle education (e.g., mattresses, electronic waste)
- Work with RDCO and the National Zero Waste Council on actions the City could take to support zero food waste and the circular economy (see Metro Vancouver / City of Vancouver for examples)

Diversion

- Food scrap collection
- More education on how to reuse or recycle
- More separation (in Europe some places have more separation)

Wastewater

- Biodigesters – capture methane from compost and then team up with agriculture to see quantities of gas that could be created and then put into RNG

**ENERGY**

**Consultant recommendations**

- Develop a community solar program with access to grants and low-interest loans
- Develop a program to add solar PV to all municipal buildings
- Undertake study with UBCO to explore RNG and hydrogen in district energy system
- Develop community education materials on benefits of solar PV

**ENERGY (CON'T)**

- Solar ready for housing
  - EV ready garages in housing
  - Batter storage ready for garages in housing
  - Wind turbines and wind energy
  - Bulk purchase buys coordinated by the City for going green (Federal government may have funding stream to retrofit neighbourhoods)
  - Education and advocacy on carbon intensity of hydroelectricity that includes construction and methane production
  - Demo projects to showcase technology
  - A program to shift the capital expenditure burden from individuals to the City
  - Offer grants/incentives up front, people can't always afford to pay the upfront costs
- This topic not discussed due to time constraints

**LAND USE AND NATURAL ASSETS**

**Consultant recommendations**

- Continue expansion of infill housing and missing middle housing (less single-family dwellings)
- Complete natural asset assessment that characterizes and values the ecological and infrastructure services provided to inform how Kelowna develops going forward (such that high value features are protected or restored – e.g., revise Area Structure Plans and OCP)
  - DCC reform suggestion from buildings would work here as well
  - Develop natural asset policy
  - Look at natural assets for storm water and drainage management and carbon sequestration
  - Educate homeowner on what can be done on their land to support natural assets
  - Increase tree canopy coverage in urban centres to 20 – 25%
  - Protect/restore grasslands and wetlands for carbon sequestration
  - Look for areas of co-benefits, e.g. trees sequester carbon and provide health benefits
  - De-paving initiatives
  - More family-friendly housing that isn't single family
  - Prioritize natural asset evaluation and management
  - landscape standards, green infrastructure
  - cool pavement or permeable pavement
  - right tree, right species, right reason, right maintenance, right spot
  - Have a real emphasis for zoning/development that is really local at the street corner level
  - Stronger landscaping standards for multi-use buildings. If trees/vegetation can't fit on lots, add them to streets, parking spaces, etc.
  - Ground up consultation for multi-family housing to understand what people want/are missing.
- This topic was not discussed due to time constraints

**OTHER IDEAS**

- Job descriptions should include sustainability
  - Add climate lens to city operations
  - Promote local procurement at the City and encourage others to do the same
  - Work to identify actions that can achieve both mitigation and adaptation for greatest impact
- Localize our food system
  - Expand community gardens
  - Incentives to buy local
  - Larger portion of budget to go to purchasing parks
  - Community grants to start initiatives like community gardens
  - Cheaper seeds for food growing plants and more expensive grass (discourage lawns and encourage gardens)
  - Different versions of lawns that we could use for parks (clover or more native species) or biodiversity, water conservation, etc.



# APPENDIX B

## Open House Action Ideas

The following is a list of action ideas generated during the in-person and virtual open houses hosted in April 2023.

### MITIGATION (REDUCING GHG EMISSIONS) SUGGESTED ACTIONS

TOPIC	ACTION IDEA
TRANSPORTATION	<b>General transportation</b>
	<ul style="list-style-type: none"> <li>• Stop inducing traffic with road projects / no more road expansion</li> <li>• Revise commercial delivery (larger trucks to peripheral areas, small trucks within city)</li> <li>• Impose a moratorium on gas bar/pump facilities in new City approvals</li> <li>• Enforce no idling</li> <li>• Advance mode shift TMP projects</li> <li>• Incentivize sustainable transport or make parking expensive and difficult</li> <li>• Investigate parking reform</li> <li>• Car share in all buildings</li> </ul>
	<b>Transit</b>
	<ul style="list-style-type: none"> <li>• More buses for the transit system</li> <li>• Use smaller community buses to take more routes reducing pressure on main transit</li> <li>• Electrify city buses</li> <li>• Light rail throughout the Okanagan Valley</li> <li>• Universal bus pass for major employers</li> </ul>
	<b>Cycling</b>
	<ul style="list-style-type: none"> <li>• Make cycling easier to outlying areas</li> <li>• More secure bike parking</li> <li>• More safe biking/protected bike lanes</li> <li>• Provide bike riding program for all grade 3/4 students</li> <li>• Offer ebike incentive program</li> <li>• Convert all major roadways to include optimal safe bike paths</li> <li>• Widen bike paths to allow for two bikes traveling in the same direction</li> <li>• Solar biking corridors (solar panels above bike route to generate electricity and provide shelter)</li> </ul>
	<b>EVs</b>
	<ul style="list-style-type: none"> <li>• Expand EV's and promote to encourage them</li> <li>• Incentivize EVs (e.g. free parking beyond one year)</li> <li>• Consider the entire electricity cycle – it may distribute the GHGs but may not lower it overall</li> <li>• Include EV charging stations in multi-unit buildings</li> </ul>

TOPIC	ACTION IDEA
<b>BUILDINGS</b>	<ul style="list-style-type: none"> <li>• Implement Energy Step Code 4 before 2027</li> <li>• Implement Zero Carbon Step Code ASAP</li> <li>• Reduce/limit square footage of buildings</li> <li>• Reduce energy use / cost in affordable housing</li> </ul>
<b>WASTE</b>	<ul style="list-style-type: none"> <li>• Offer kitchen waste composting program</li> <li>• Integrate circular economy principles to reduce landfill directed goods</li> <li>• Apply climate friendly procurement practices</li> <li>• Create up-cycling /recycling / repair mall</li> </ul>
<b>LAND USE</b>	<ul style="list-style-type: none"> <li>• All commercial zones in suburban neighbourhoods to make them more complete communities</li> <li>• Enable co-housing</li> <li>• No 15 minute cities</li> </ul>
<b>OTHER</b>	<ul style="list-style-type: none"> <li>• Establish a community task force to advise the City on how to reduce GHGs</li> <li>• Sue big oil with other municipalities to recoup costs</li> </ul>

## ADAPTATION SUGGESTED ACTIONS

TOPIC	ACTION IDEA
<b>BUILDINGS</b>	<ul style="list-style-type: none"> <li>• Green roofs on new buildings</li> <li>• Eliminate barriers to adopt climate solutions (e.g. stratas' preventing solar on roofs)</li> </ul>
<b>LAND USE</b>	<ul style="list-style-type: none"> <li>• Consider more 6-storey housing (less carbon intensive, reduces heat island, etc.)</li> </ul>
<b>NATURE &amp; GREEN SPACE</b>	<ul style="list-style-type: none"> <li>• Increase urban tree canopy significantly</li> <li>• Free trees for residents</li> <li>• Protect the bees from monoculture &amp; pesticides</li> <li>• Require or work with developers to preserve and plant trees</li> <li>• More street trees</li> <li>• Preserve, restore and expand green space/natural assets</li> <li>• Protect wildlife</li> <li>• Have a policy against cutting down mature trees</li> <li>• Require native plants in landscaping</li> <li>• Outdoor recreation spaces that double as water / flood detention ponds in flood situation</li> <li>• Use volunteers for urban tree planting</li> <li>• Monitor invasive species</li> <li>• Encourage City park plantings to reduce mowing and use native plants</li> </ul>
<b>ALTERNATIVE ENERGY</b>	<ul style="list-style-type: none"> <li>• Invest municipally in public solar or wind</li> <li>• Shift away from centralized electricity generation and distribution.</li> <li>• Offer incentives to adopt micro-grid electricity generation</li> </ul>
<b>CLIMATE EQUITY &amp; JUSTICE</b>	<ul style="list-style-type: none"> <li>• Integrate climate justice to address disproportionate harm, differentiated scales of accountability and responsibility, race, gender, class, disability etc.</li> <li>• Involve youth in climate planning and decisions</li> </ul>
<b>COLLABORATION &amp; RESOURCING</b>	<ul style="list-style-type: none"> <li>• Increased collaboration with local organizations and groups working to forward climate related goals</li> <li>• Engage Syilx Leadership in developing and implementing the strategy.</li> <li>• Seek ideas from big employers to get more people thinking about the issue</li> <li>• Onboard students to support the resourcing constraints</li> </ul>

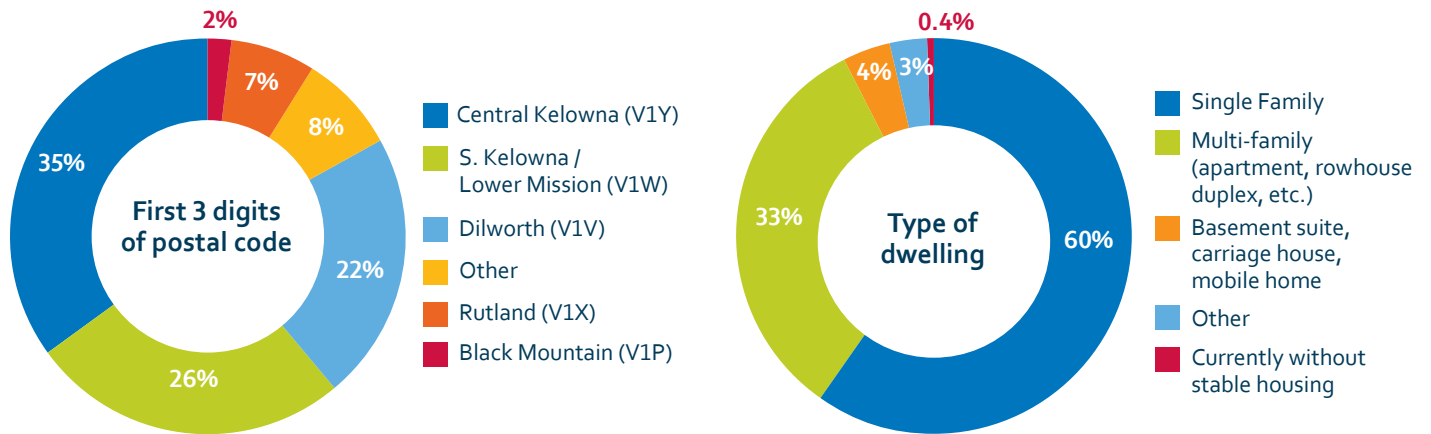
TOPIC	ACTION IDEA
<b>EDUCATION &amp; INFORMATION</b>	<ul style="list-style-type: none"> <li>• Encourage leaders to take mini course on climate science?</li> <li>• Create an education hub where people who have questions (e.g. about heat pumps, solar panels, EVs, etc. ) could have their questions answered.</li> <li>• Offer learning workshops on how to transition from lawn grass to biodiverse yards spaces.</li> <li>• Offer community climate resilience resources and workshops.</li> </ul>
<b>INCENTIVES</b>	<ul style="list-style-type: none"> <li>• Offer incentives for drought tolerant plants and/or encourage rainwater harvesting</li> </ul>
<b>FOOD SECURITY</b>	<ul style="list-style-type: none"> <li>• Encourage agricultural practices that naturally sequester carbon and vertical farming</li> <li>• Make local food have more competitive prices</li> <li>• Engage students on eating local</li> <li>• Allow backyard bees and chickens</li> <li>• Indoor, year-round farmers market connected to up-cycling thrift mall</li> <li>• Create local food storage warehouse</li> </ul>
<b>OTHER</b>	<ul style="list-style-type: none"> <li>• Have strategy address multiple crisis</li> <li>• Declare a climate emergency</li> <li>• Create more indoor recreation area for when its hot, smokey,etc.</li> </ul>

# APPENDIX C

## About Our Survey Participants

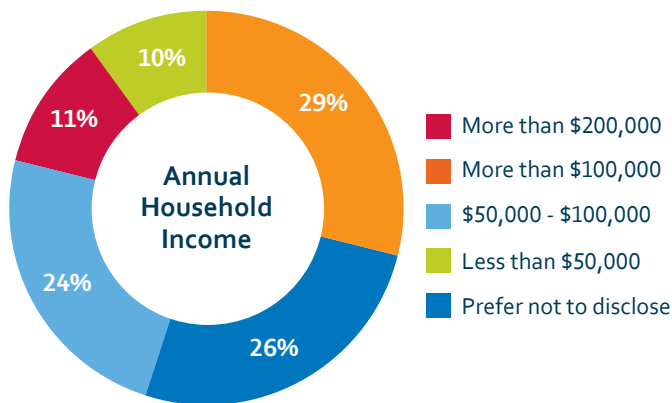
The CRKS Survey was designed to hear from a diverse array of voices and provide a platform for individuals of all backgrounds to share their feedback. Of the 248 participants who responded to the survey, 247 opted to answer voluntary demographic identifier questions.

Survey respondents were well represented across the community, however there was lower participation in Rutland and Black Mountain areas. Most of the respondents resided in single-family homes.



Most responses were from females (52 per cent), followed by 40 per cent from male and two per cent identified as non-binary (the remaining six per cent of the respondents preferred to self-describe or not answer). Nearly three per cent of respondents self-identified as Indigenous, eight per cent identified as a visible minority, and seven percent identified as having a disability.

While over a quarter of the respondents chose not to disclose, most respondents household incomes were greater than \$100,000 (40 per cent). Ten per cent of respondents had a household income less than \$50,000 and nearly 7 per cent of respondents identified as having financial hardship.







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