



August 2023

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ANNEXES (Separate Volume)

- A. Detailed Climate Risk Responses
 - Climate Risk Responses at the Individual Level
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- B. Participant Survey Tabular Data
- C. Links to Individual Workshop Reports
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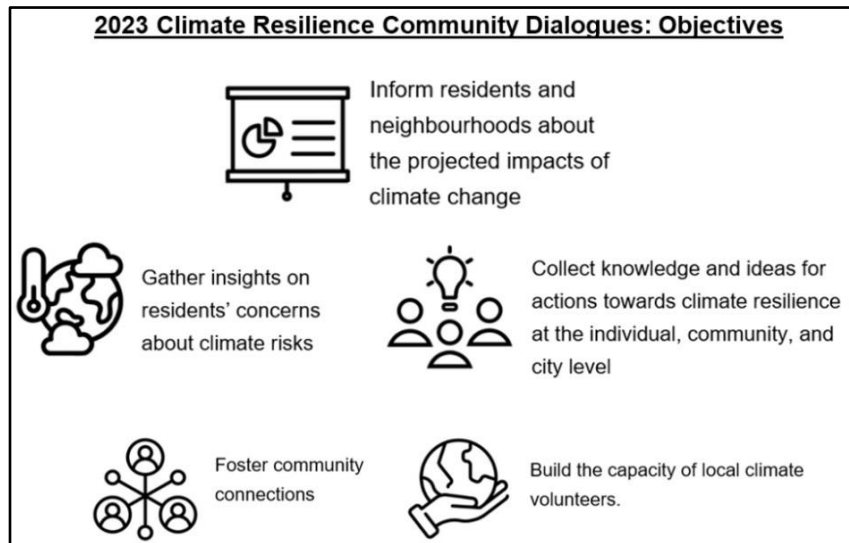
EXECUTIVE SUMMARY

The CAFES 2023 Climate Resiliency Community Dialogues were well received and are a first step towards building community climate resilience. The workshop series was organized by CAFES across Ottawa in spring 2023 in collaboration with partner community associations and supported by the City of Ottawa Climate Change and Resiliency Unit.

CAFES and the City of Ottawa both aim to raise awareness of the projected impacts of climate change in Ottawa and share information on how we can prepare for changing climate conditions and more extreme weather. We wanted to learn which climate change impacts are of greatest concern to communities and residents, and dialogue with communities on what strategies and programs can mitigate these risks and help

communities prepare for climate change. In the wake of COVID, holding these in-person workshops and convening the CAFES Climate Caucus meetings also aimed at building community connections and building the capacity of local climate volunteers.

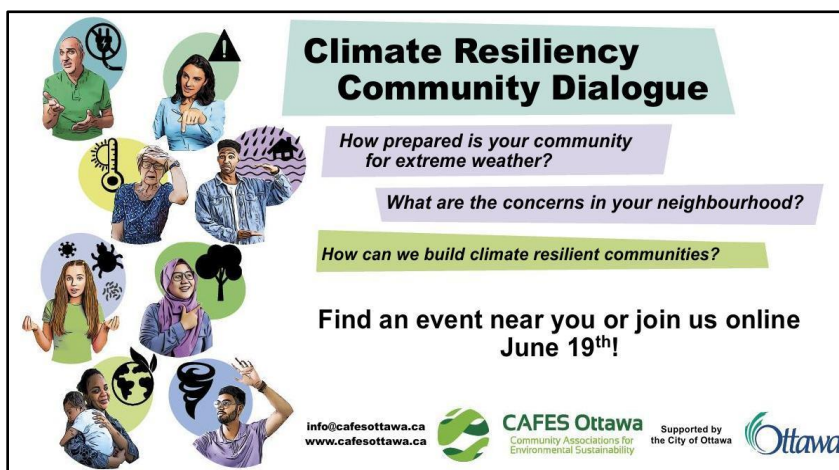
Between May 12th and June 29th, 2023, eleven dialogue sessions were held (1 virtual session and 10 in person across the city) with approximately 330 participants and 70 volunteers engaged in facilitation and note-taking roles. Each session included introductions, climate briefing information, break-out table discussions on concerns and risk responses, report-backs and concluding remarks. For most of the workshops, climate risks were presented in a framework of four *climate hazard areas*: Extreme heat, changing seasons, more rainfall and extreme weather events.



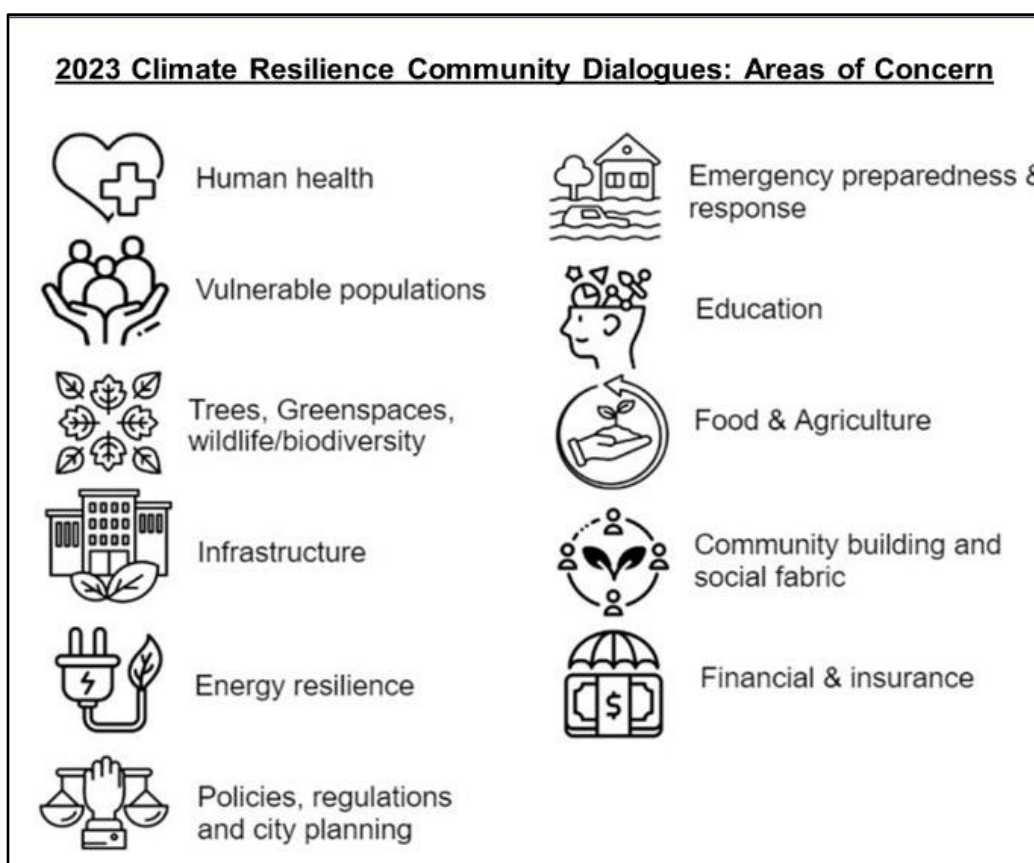
Eleven separate workshop reports were drafted, fed back to participants and co-hosts for review, and then finalized. They are available [here](#).

All inputs from the workshops – both posted notes written by participants and discussions recorded by note takers – were

analyzed and categorized. Overall, the Climate Resiliency Dialogues generated over a thousand ‘concerns’ and ideas for ‘risk response’ actions.

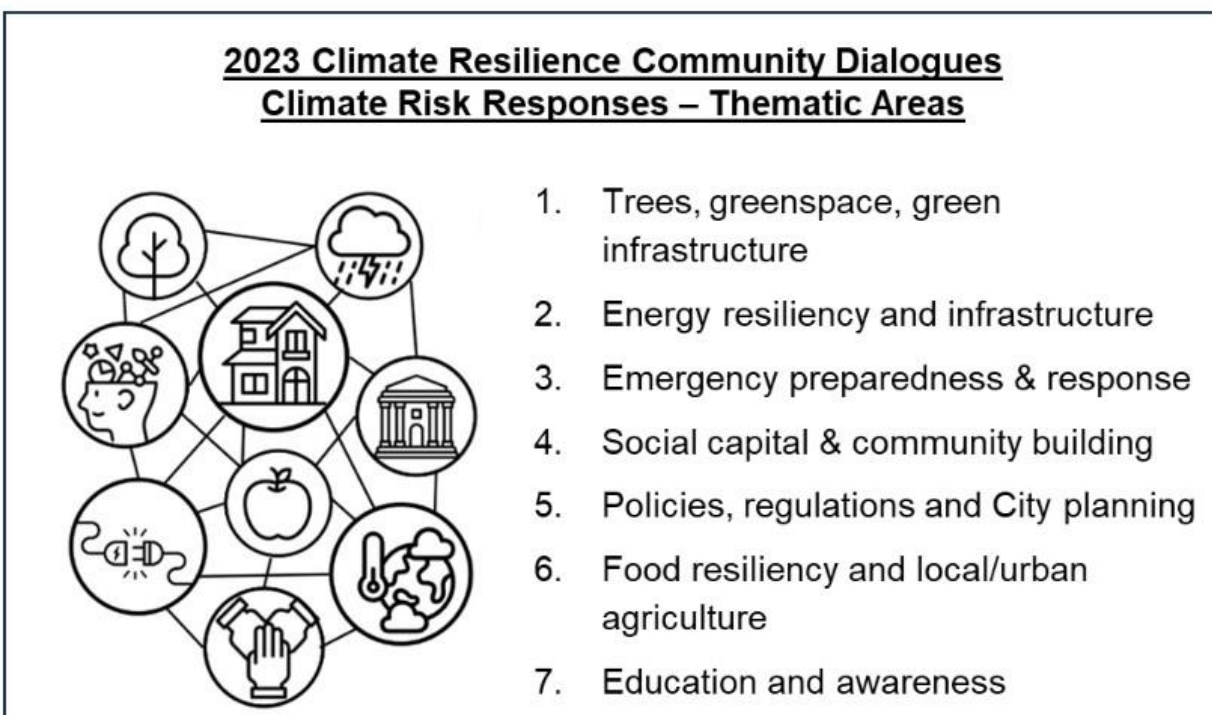


Participant concerns about climate change impacts were in the following 11 areas:





The focus of the break-out sessions was to generate *climate risk responses* (or ‘solutions’, or ‘adaptation actions’ in federal government parlance). The over 700 risk responses raised during the dialogues fell into the following themes, in approximately the following order of prevalence:



The risk responses were then also categorized into suggestions at the individual, community and city level. Summaries of these are as follows:

Risk Responses: Key Actions at Individual/Household Level

- Plant shade trees, pollinator gardens, rain gardens, take care of trees & plants
- Collect rainwater & install permeable pavement where possible
- Home retrofits: energy efficiency, cooling, sump pumps/ backwater valves, back-up/alternative/renewable power, storm ties, indoor air quality
- Get informed on climate impacts & preparedness
- Prepare emergency kit and go bag

- Connect to community and check up on neighbours during and after extreme weather events
- Advocate to Councillors and City Council to fund climate resiliency

Risk Responses: Key Actions at Community Level

- Plant shade trees, pollinator gardens, rain gardens, take care of the tree canopy, renaturalize river edges
- Create community emergency plan including community alert, communications and roles
- Create multi-unit residential building emergency plans
- Establish microgrids
- Share information on climate impacts & preparedness
- Build partnerships with other groups & the City to prepare for climate change
- Help build support networks to check on residents during climatic events
- Help turn community centres into emergency shelters, cooling centres and community communications hubs

Risk Responses: Key Actions at City Level

Public Investment

- Increase the urban tree canopy shade; number of parks and greenspaces for recreation, community building and stormwater catchment (dual purpose); protect wetlands and shorelines.
- Bolster/harden critical infrastructure such as electricity/gas, water, sewage and hospitals
- Create more community-level infrastructure to build resilience (e.g. splash pads, emergency shelters, cooling in community centres)
- Build microgrids; bury power lines; and plan for Ottawa energy system resiliency (powered-down emergency back-up plans)
- Increase education efforts, provide incentives and supports for actions that build resilience, and build partnerships with communities to prepare for climate change
- Provide communities with a detailed framework for community emergency plans

Regulations, Policies & Planning

- Create and enforce building codes & development standards for climate resilient buildings
- Prohibit urban development on floodplains, wetlands and agriculture land

- Prohibit developments paving over all greenspace in a lot
- Enforce the Tree Protection By-law
- End cash in lieu of greenspace
- Require landlords to install cooling devices
- Change City bylaws (and utility practices) that restrict actions that build climate resiliency
- Create a plan to protect wetlands
- Build 15-minute neighbourhoods

The series of workshops represent an in-depth community engagement process that differed from many engagement processes run by the City of Ottawa to obtain input on City plans such as in-person or virtual open houses, or online surveys. Based on both anecdotal feedback and the results of the feedback questionnaire, the workshops were well-received and provided meaningful input.

Key takeaways from the project are the following:



Communities around Ottawa are not prepared for climate disasters. The current level of community emergency preparedness is very low. We learned that individuals/households do not have emergency kits or go bags prepared, that they do not know where to access information about extreme heat or extreme weather conditions, nor do they know what supports exist to build resiliency (e.g. backwater valve grants). Few people know how to figure out what they need to be doing to prepare themselves for climate impacts based on their location.

While there is some growing awareness of climate risks and vulnerability, there is virtually no dedicated capacity in the community for climate resiliency, emergency preparedness and little capacity for self-sufficiency for several days without power in very hot or very cold conditions.

Communities have not begun the process of identifying vulnerable neighbours, of creating community level emergency preparedness plans, and aren't currently sharing information on climate resiliency with their neighbours.

The other side of this coin is the importance of education, incentives and awareness raising. Attendees made clear that they would like to see more information on climate impacts, risks and steps that individuals and communities can take to prepare needs to be shared across a variety of modalities. Communities are also interested in more information on how to navigate municipal departments/ systems to know who to talk to about undertaking community projects.



Communities like being asked what they think needs doing and have informed ideas. From the level of engagement and participation, from the feedback, and from the volume and range of risk mitigation responses received, it is evident that this approach to community

consultation can tap a rich vein of deliberation. The 11 community reports are impressive and paint a rich canvass. Many workshop attendees were well-informed and brought a variety of expertise. Community dialogue workshops as a methodology, allow the City to mine community knowledge in a cost-effective manner.

It is clear that while the voices captured are distributed across urban, suburban and rural areas, they are by no means representative of all the people of Ottawa. It is a particular segment of environmentally aware and community- and civically-engaged people that responded to the workshop invitations. With more notice and more resources, future exercises of this kind on other subjects could also visit other places and partner with other networks - schools, universities, recreation centres, cultural associations etc.



Trees and greenspace investments need to be a leading part of Ottawa's resiliency strategy. By the prevalence and consistency of mentioning trees and greenspace in the climate risk mitigation dialogues, the community is sending a clear message. Urban forest management and the investment in our green spaces must be a key part of our municipal resiliency strategy. The number of inputs in this thematic area are in part due to the convergence of resiliency-benefits from investments in trees and greenspace, including,

- creating cooling and shade from large trees in the inner urban area,
- absorbing storm water in densifying and overland flooding risk zones,
- increasing livability and wellness, and
- supporting biodiversity and creating habitat.

At the same time, it is clear that Ottawa's forests (urban and rural) are also at significant risk from climate change through storms (ice and wind), heat, drought, fire and changing seasons. As such, it stands to reason that in the same way that [resiliency and emergency preparedness studies and action plans](#) are undertaken for airports, sewage or water treatment plans, Ottawa should do so for the urban forest as its critical green asset.



Energy resiliency is at the crux. The conversations in all the dialogues touched on energy resiliency at household, community and municipal level. Many concerns were raised relating to power outages and associated risks, and there were many climate risk mitigation responses related to renewable energy and local energy generation.

Microgrids (a local electrical grid with defined electrical boundaries acting as a single and controllable entity) that are able to operate in grid-connected or island modes often popped up in the workshop discussions. Many gaps remain in terms of understanding the path forward in this area such as what the levers of change are and what the regulatory framework looks like.

The community has an expectation that there will be community hubs for cooling and warming those that need it, and that these hubs will have back-up and sustained power.

The climate change-induced energy transition relates to both mitigation and adaptation. As we increase our dependence on electricity in the midst of increasing climate instability, the importance of energy storage, batteries and back-up power systems increases.



Emergency preparedness is a key concern & where many opportunities for action lie.

Emergency preparedness was a key concern across all dialogues. Attendees shared major concerns about meeting basic needs in extreme weather events- where community members can go to get shelter, food, water, power, and information. There were many suggestions for actions relating to community and City alert systems, communications plans and back-up technologies, community and neighbourhood level emergency plans, and resources from the City.

Conversations at the dialogues foresaw the need not only for detailed frameworks for creating neighbourhood level climate preparedness plans, but a program of training and resources from the City. Detailed frameworks can include steps and guidance on creating a community inventory of people to check up on, skills and tools in the neighbourhood, information on respite centres/ emergency shelters, information on how to receive updates from City services and Hydro Ottawa/Hydro One and checklists on supplies communities should have. Suggested resources include training for community leaders on creating, updating and maintaining preparedness plans, staff support undertaking the identified actions, physical resources such as generators for community centres, first aid supplies, funding to purchase grocery store gift cards.



People are concerned about impacts on vulnerable groups. There was concern expressed across all workshops for vulnerable and marginalized populations, the disproportionate impacts they face, and in many cases the reduced access to resources for recovery by these groups. Targeted follow-up to speak with these residents directly will be needed to create an inclusive Climate Resiliency Strategy.

A majority of workshops recommended that vulnerable individuals in a community need to be ‘identified’ ahead of time but there is no clarity on how such an ‘inventory’ of vulnerable individuals or households would be created, or maintained, or through which agency. Anecdotally, there is resistance in rural areas to any kind of ‘inspection’ of households.

Multi-unit residential buildings (MURBs) were also understood to present particular vulnerabilities. Questions were raised as to requirements and standards for emergency preparedness of MURBs and the desirability of drills to ensure that infrastructure, protocols and behavioural preparedness was in place in practice.



Community building and social fabric is key to community resilience. A large takeaway from the workshops was the importance of social fabric and community building to climate resiliency, and that a very significant part of increasing climate resiliency is a cultural and social matter. Similarly, the lack of social capital in communities was raised as an impediment to building resilience. Attendees regularly brought up the importance of knowing one's neighbour so that when extreme weather events occur, people already know each other and are more likely to check up on one another and help. Activities to build that kind of community connection were highlighted as climate risk responses many times, ranging from community barbecues to deep canvassing.



People expect to see new and bolstered infrastructure built. Across the dialogues, concerns were raised about the ability of current infrastructure to withstand climate impacts. It is clear that the community is expecting investments in bolstering infrastructure, creation of new infrastructure to build resilience, and new building codes and development standards. Community centres are expected to be local resiliency hubs.



Ottawans are tracking decisions that undermine climate resilience. Conversations across the workshops were also underpinned by some scepticism. Concerns were raised related to provincial and city council decisions, current policies (or a lack thereof) that hinder climate resiliency. These inputs related to areas including development standards, building codes and regulations around greenspaces, and lack of protection for urban trees, rural and peri-urban woodlots and wetlands.

Notably, the community has a broad-based and robust understanding of the ecological and hydrological importance of wetlands and the exacerbation of climate risks when this is ignored. The community also believes that it is better to avoid risk and not build on floodplains.



Next steps in building Ottawa's climate resiliency will include the City of Ottawa drafting our Climate Resiliency Strategy. The report at hand serves as an input to this draft Strategy (expected by end 2023). There will then be further public engagement and consultations in 2024, before the Climate Resiliency Strategy will be finalized, including an action plan.

At community level, this project has shown many needs as well as many opportunities to move forward in responding to the significant climate risks we face. CAFES, with its mandate for supporting community initiatives and climate action in Ottawa, sees many potential avenues for constructive follow up. These include information and awareness raising regarding particular climate hazards; practical and technical workshops to build household climate resiliency; public engagement around the draft Climate Resiliency Strategy; supporting pilot community resiliency initiatives and projects; trees and greenspace projects including connecting shade and stormwater management benefits; piloting residential climate risk disclosures; and not least, advocating for investing in strengthened climate resiliency at City Committees and Ottawa City Council.

ACKNOWLEDGEMENTS

Land Acknowledgement

We acknowledge that we are living on the unceded, unsundered territory of the Anishinaabe Algonquin Nation whose presence here reaches back to time immemorial. We recognize the Algonquins as the customary keepers and defenders of the Ottawa River Watershed and its tributaries. We honour their long history of welcoming many nations to this beautiful territory and uphold and uplift the voice and values of our Host Nation. We respect and affirm the inherent and Treaty Rights of all Indigenous Peoples across this land. We continue to honour the commitments to self-determination and sovereignty we have made to Indigenous Nations and peoples. We acknowledge the historical oppression of lands, cultures and the original peoples in what we now know as Canada and are committed to the healing and decolonizing journey we all share together.

Project Acknowledgement

Errors of commission and omission in this report rest with the CAFES team for this project - Mary Stuart, Angela Keller-Herzog and Phillipa MacDonald. We are grateful for administrative support from Laura French. The project team gratefully acknowledges everyone who participated in these whirlwind months of work and engagement.



Workshop Co-Host & Volunteer

Acknowledgement

We are grateful to over 70 community volunteers who supported the community dialogues with their efforts and the following 23 local community association/organizations who co-host ed the workshops:

Alta Vista CA	Kanata Beaverbrook CA	Riverview Park CA
Briarbrook Brookside Morgan's Grant CA	Kanata Lakes CA	Rockcliffe Park CA
Burritts Rapids CA	Lindenlea CA	Vanier CA
Centretown Citizens CA	Manor Park CA	Wellington Village CA
Champlain Park CA	Mechanicsville CA	West Barrhaven CA
Dalhousie CA	New Edinburgh	West Carleton Disaster Relief
Greater Avalon CA	Old Ottawa East CA	
Hintonburg CA	Overbrook CA	

Partnership Acknowledgement

We are grateful for the partnership support received from the City of Ottawa, Climate and Resiliency Unit including information resources not least the Climate Projections for the National Capital Region report which provided the key starting point for the conversation; the many localized flood, infrastructure and heat maps (see annexes to individual workshop reports); support during workshop discussions and workshop security. Funding for this project was provided by the City of Ottawa and included a \$15,000 grant to the City from International Council for Local Environmental Initiatives (ICLEI) Canada under the Agents of Change Project.

Local Councillors' Acknowledgement

Lastly, we would like to say thank you to the City Councillors who attended the community dialogues and helped promote them in their newsletters.

1. Introduction

1.1 Purpose and Objectives of the Project

CAFES and the City of Ottawa share a purpose: raising awareness and knowledge of the projected impacts of climate change in Ottawa. Further, we aim to share information on how the city overall, and residents and neighbourhoods in particular, can prepare themselves for changing climate conditions and more extreme weather.

The goal of this project was to learn which climate change impacts are of greatest concern to communities and residents, and dialogue with communities on what strategies, programs and actions can mitigate these risks and help communities prepare for climate change. Another goal was to support building community connections and build the capacity of local climate volunteers.



The project partnership supported the above objectives through organizing a series of local workshops that,

- (a) Raised awareness through providing information and resources on climate risks and resiliency to residents.
- (b) Fostered community dialogue:
 - creating a space for residents, businesses and local organizations to share their perspectives on climate resiliency,
 - identifying particular areas of concern
 - identifying areas for household, community and/or City action to mitigate climate risks, and build people-to-people community connections on this issue
- (c) Shared feedback from the dialogues:
 - raising awareness through the CAFES network and CAFES Climate Caucus, and
 - informing the development of the City of Ottawa Climate Resiliency Strategy and Action Plans.

1.2 Municipal Context

In 2019, Ottawa City Council declared a Climate Emergency, and in January 2020 the City adopted the Climate Change Master Plan to guide the City's response to climate change. Part of the City's response to climate change involves building resiliency, which the City defines as "how well we adapt in response to climate conditions now and in the future" ([City of Ottawa](#)). In its work on fostering resilience, the City commissioned a study that modelled [projected climate impacts](#) on Ottawa over the next several decades, has published a [Climate Vulnerability Risk Assessment](#) (CVRA), and is currently developing a Climate Resiliency Strategy to identify strategies and action items to address the top risks. This draft Strategy is expected to be brought to City Council by the end of 2023.

The **City's Climate Change and Resiliency unit** is looking to hear from communities across Ottawa to inform the resiliency strategy and programming, recognizing that people will face different impacts based on many factors including geographic location, age, gender, race and income. CAFES shares the goals of raising awareness of climate impacts and supporting actions to build resiliency to the challenges of climate change. The City's Climate Change and Resiliency Unit and CAFES agreed to work together to hold a series of dialogues, organized by CAFES and partner community associations, to foster community-based discussions on preparedness and resilience in the face of expected climate impacts.



1.3 About CAFES

Community Associations for Environmental Sustainability (CAFES) is a federally incorporated non-profit organization. We are a forum for community and residents' associations and their members on local environmental and climate issues. Our members include representatives from over 50 different organizations spanning urban, suburban and rural communities.

CAFES is a network of local environmental and climate leaders - citizens who are working to promote environmental sustainability in our city and our neighbourhoods, sharing information on concerns, community events, best practices and research.

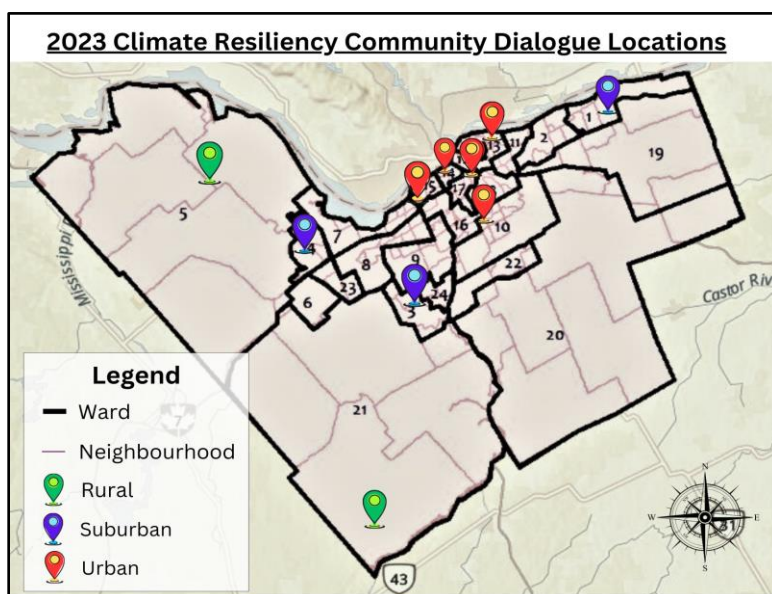
Since its founding in 2010, CAFES has monitored and regularly provided input to municipal environment and climate programs and policies. CAFES raises awareness and builds knowledge of municipal decisions and issues related to the environment. This makes CAFES ideally placed to liaise between community associations and the City of Ottawa on climate resiliency.

1.4 Project Timeline and Workshop locations

CAFES shared the project concept with its network through the *CAFES Bulletin* and launched it at the CAFES Climate Caucus meeting in March 2023. Community Associations (CAs) were invited to contact CAFES about partnering in the project and co-hosting a dialogue if they were interested. Priority was given to CAs who are organisational members of CAFES (though it was not a requirement to be a CAFES member to act as a co-host). CAFES also sought broad distribution across the city. We proactively contacted CAs, with the aim of having balanced geographical locations across the city with workshops in urban, suburban and rural areas of the city. April and May were spent planning each of the dialogues with each group of CAs, taking into account local factors and preferences. Emphasis was placed on the importance of local place, inviting residents from the locality, and building community through an in-person meeting.

The first dialogue was held on May 12th in Old Ottawa East and they ran until June 29th in West Carleton. Once the dialogues were held, individual draft dialogue reports were written and sent back to event participants for a comment period. One virtual workshop was added to the scope of the project and held on zoom on June 19th 2023. This was to accommodate residents from wards where there was no nearby workshop, and to provide greater accessibility to all Ottawans.

We organized 11 dialogue sessions in total, 10 of which were in person across the city, as shown in the map and table below:



Date 2023	Partner Community/ Citizen Association	Community Dialogue Report	Ward
May 12	Old Ottawa East Community Association	Old Ottawa East Report	17 - Capital Ward
May 13	Kanata Lakes, Kanata Beaverbrook, Briarbrook Brookside Morgan's Grant Community Associations	Kanata Report	4 - Kanata North
May 16	Burritts Rapids Community Association	Burritts Rapids Report	21 - Rideau-Jock
May 17	West Barrhaven Community Association	Barrhaven Report	3 & 24 - Barrhaven East and West
May 23	Hintonburg, Mechanicsville, Champlain Park, Wellington Village Community Associations	Kitchissippi Report	15 - Kitchissippi
May 30	Lindenlea, Manor Park, New Edinburgh, Overbrook, Rockcliffe Park, Vanier Community Associations	Community Collective (Wards 12&13) Report	12 & 13 Rideau-Vanier and Rideau-Rockcliffe
June 6	Riverview Park & Alta Vista Community Associations	Riverview Park & Alta Vista Report	18 - River
June 9	Greater Avalon Community Association	Orléans Report	1, 2 & 19 - Orleans East-Cumberland, Orleans West-Innes, Orleans South-Navan
June 13	Dalhousie & Centretown Community Associations	Dalhousie & Centretown Report	14 Somerset
June 19	Zoom	Virtual Report	All
June 29	West Carleton Disaster Relief	West Carleton Report	5 - West Carleton March

Table 1: Partner Community/ Citizen's Associations and associated Wards where workshops were hosted.

Participants

In total, about 330 people attended the Climate Resiliency Community Dialogues and we engaged about 70 volunteers to support the facilitation and note taking at the events. We had a critical mass for a successful community dialogue at every event, ranging from 15 to 45 people. Break-out session facilitators received briefing and training ahead of the sessions. Some City Councillors and their assistants attended the sessions and/or helped to promote the workshops through their newsletters.

2. Ottawa's Future Climate and Risks

2.1 Climate Projections for Ottawa

The City of Ottawa, in partnership with the National Capital Commission (NCC) undertook a [comprehensive climate change projection study for the National Capital Region](#) (NCR). That project used a collaborative and impact-driven approach that involved iterative feedback from the Project Partners and stakeholders such as the Ville de Gatineau and Conservation Authorities. It relied on data and advice from Environment and Climate Change Canada's (ECCC) Canadian Centre for Climate Services (CCCS). Climate projections use climate science and modelling to predict future changes in temperature, precipitation, wind and extreme events. From this research, the partners created a two-volume resource to depict climate projections for the 2030s, 2050s & 2080s, under two emissions scenarios, including a range of impacts and implications.



Summary of Future Climate in Canada's Capital Region

What to expect*	2030s	2050s	2080s
Temperature			
Average temperature	↑ 1.8°C	↑ 3.2°C	↑ 5.3°C
Very hot days (above 30°C)	2.5 times more	4 times more	6.5 times more
Very cold days (below -10°C)	20% less	35% less	65% less
Seasons			
Winters shorter by	4 weeks	5 weeks	8 weeks
Springs earlier by	2 weeks	2 weeks	4 weeks
Winter freeze-thaw	↑ 15%	↑ 35%	↑ 55%
Precipitation			
Fall-winter-spring precipitation	↑ 5%	↑ 8%	↑ 12%
Intense precipitation	↑ 5%	↑ 15%	↑ 20%
Snowfall	↓ 10%	↓ 20%	↓ 45%
Extreme Events			
Possible increases in freezing rain			
Warming favours conditions conducive to storms, wildfires			

* For high emission
Scenario RCP 8.5

More certainty

Less certainty

More certainty

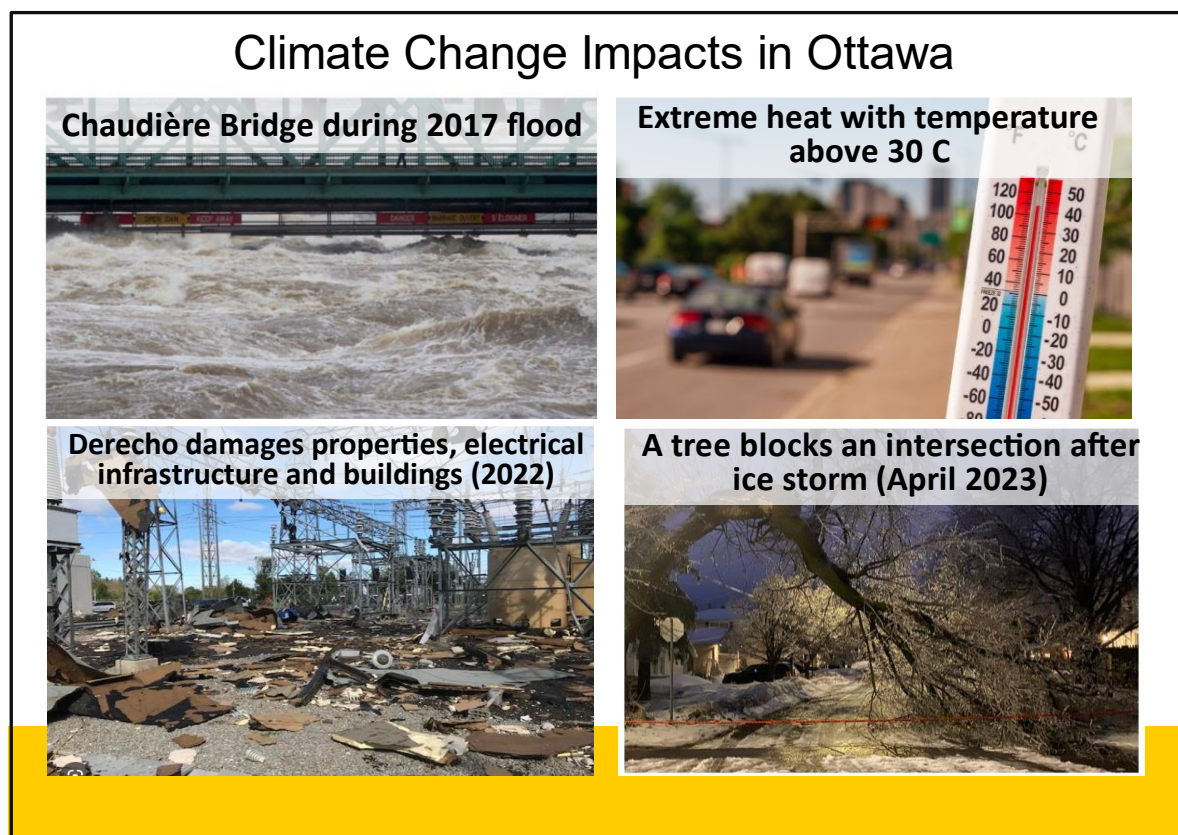
Less certainty

Figure 1. Summary of Future Climate in Canada's Capital Region. Source: [Climate Projections for the National Capital Region](#)

A summary of the findings of this research was shared with all climate resiliency community dialogue participants, not only to offer information relevant to participant future, but also to share where the City is in terms of planning and implementation. The climate projections are being

used in various climate risk assessments and to support adaptation and resiliency planning for multiple sectors. Climate projections from this study (Phase 1) will help decision-makers to understand impacts on communities, infrastructure, economy and the natural environment (Phase 2), and plan for climate resilience and adaptation initiatives (Phase 3).

It is projected that the National Capital Region will become warmer and wetter. Overall, localised projections emphasize impacts ranging from temperature, precipitation, wind, humidity, and extreme weather. Warming is anticipated in all seasons. An increase in precipitation is anticipated in all seasons, except summer. It is projected that seasons will shift in timing, and that periods of extreme heat will become more frequent. Rainfall is expected to increase, both in volume and intensity. Annually citizens can expect less snowfall and a shorter snow season. Conditions favourable for extreme events such as freezing rain, tornadoes and wildfires are anticipated to become increasingly common.



2.2 Ottawa's Climate Impacts

The city of Ottawa has been struck by a significant number of serious climate disasters in recent years. These include,

- In 2017 flood levels on the Ottawa River reached the 1 in 50-year flood event, and in 2019, the flood levels approached the 1 in 100-year event.

- Changing seasonal patterns where in winter 2022-23 the Rideau Canal did not open for skating for the first time since its opening in 1971,
- Ottawa broke heat records in April 2023 from when we started collecting temperature records in 1889; 2023 saw Canada breaking all-time heat records and expectations are that 2023 may go down as the hottest year on global record.
- The May 2022 derecho with winds up to 190 km/h, killed 11 people. In Ottawa the storm knocked down thousands of trees and cut power to 180,000 buildings served by Hydro Ottawa for several days. Some neighbourhoods remained without power for over two weeks.
- The spring 2023 freezing rain storm left thousands of households without power and did major canopy damage.
- Tornadoes touched down in Barrhaven and Metcalfe in summer 2023, and heavy rains, large hail and driving winds did damage in most neighbourhoods.
- In June 2023, due to forest fires to the north of Ottawa, the city's air quality health index reached the high-risk category according to Environment Canada. Children, elders and those at risk were asked to avoid outdoor activities and school boards kept students indoors.



2.3 Ottawa's Top Risks

Building on the climate change projections for the National Capital Region, in 2022 the City completed a [Climate Vulnerability and Risk Assessment](#) to identify the top risks associated with climate change for Ottawa. In writing this report, the City assessed 150 projected climate impacts (such as impacts on the natural environment, infrastructure and community well-being)

and identified 40 top priority risks associated with these impacts. The priority risks are those that were determined to require action in the next one to three years. The risks were categorized into the following climate hazards: extreme heat, changing seasons, more rainfall, extreme weather and global climate change. The infographics below provide some of the top risks associated with the first four climate hazards.

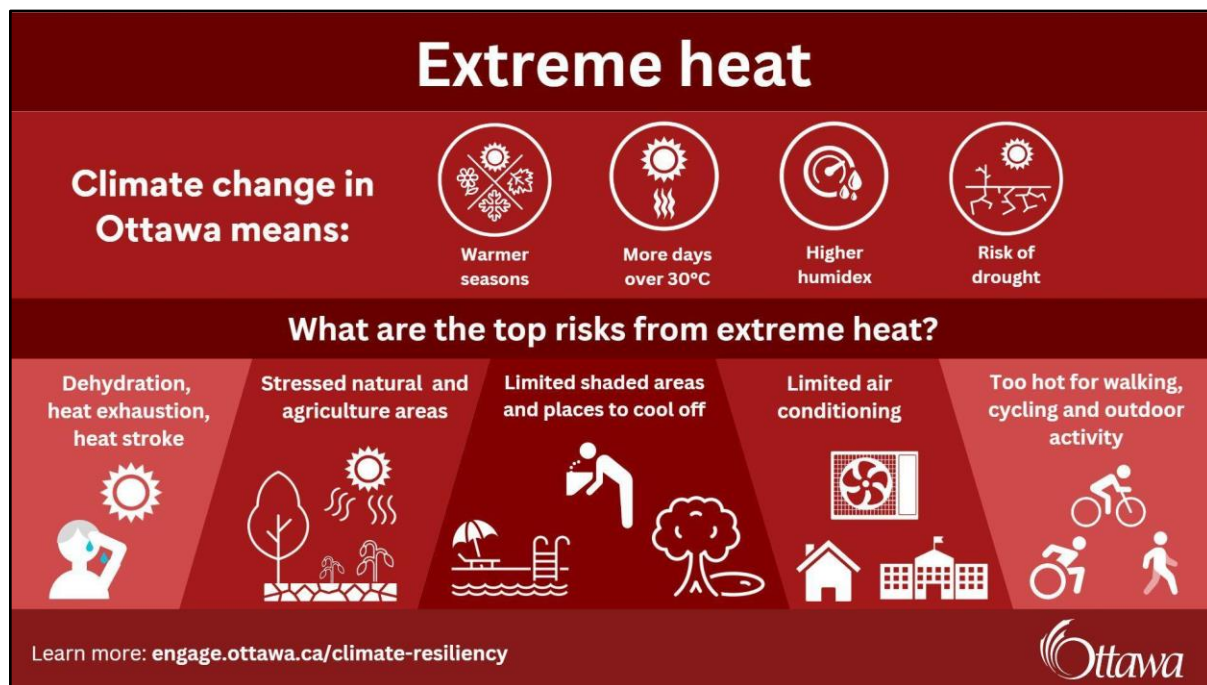


Figure 2. Infographic on Extreme heat top risks. Source: City of Ottawa Climate Change & Resiliency Unit



Figure 3. Infographic on changing seasons top risks. Source: City of Ottawa Climate Change & Resiliency Unit



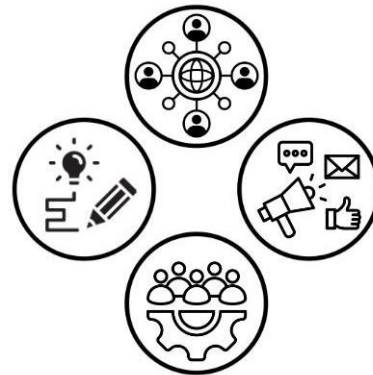
Figure 4. Infographic on more rainfall top risks. Source: City of Ottawa Climate Change & Resiliency Unit



Figure 5. Infographic on extreme weather top risks. Source: City of Ottawa Climate Change & Resiliency Unit

3. Process of Community Engagement

The purpose of the following section is to provide information on the steps taken to organize the Climate Resiliency Dialogues (CRDs) as a meaningful way of engaging Ottawans to give input to a City plan and foster discussion. This section will also provide the methodology followed in writing the individual dialogue reports and this final report.



Identifying and planning workshops

The first CAFES call went to network members announcing the Climate Resiliency Community Dialogues Project in March 2023. In addition to following up on the resulting expressions of interest, we then proactively contacted further CAs, with the aim of having balanced geographical locations across the city with workshops in urban, suburban and rural areas of the city.



Meetings with co-hosts

We held several meetings with workshop co-host CA representatives to create a plan for the workshops. In our initial meetings we invited CAs to invite any neighbouring CAs in their Ward to also join as co-hosts to increase the reach of the workshops. In a couple of cases, we then contacted other community associations ourselves to invite them to join the existing initiative. We held 1-2 other virtual meetings with co-hosts (by workshop) to discuss possible dates and venues, possible local information to highlight during the opening background presentation, workshop promotion and any other relevant logistics. We remained in contact with co-hosts through email, answering questions and sending reminder messages about various tasks that had to be accomplished.

Materials

CAFES created the following materials for the workshops:

1. Information sheet detailing the project to send to potential co-hosts
2. Background presentation to give at the start of each workshop (using a template presentation provided by the City's Climate Change and Resiliency Unit)
3. MOU and organizing documents for each workshop
4. Guides for facilitators (one for the in-person workshops and one for the virtual workshop)
5. Guide for note takers at the virtual workshop
6. Document with resources for registrants to consult before the workshop and a document with more resources to share with attendees after the workshop.
7. For each workshop: draft report and then a final report that took into account additional comments from participants
8. Participant survey to send to all workshop attendees after the workshops
9. The City staff brought a series of maps to the workshops including ward level urban heat island and floodplain maps (see Appendix E for sample maps)

Promotion

We used various methods to promote the workshops that are detailed in the list below:

- Local community newspapers
- Co-hosting community association newsletters/ email distribution lists
- Community association social media
- CAFES distribution lists
- CAFES social media
- City of Ottawa social media
- City of Ottawa Climate Change newsletter
- City Councillor newsletters (in some cases)
- Other organizations' channels

Promotion analytics

Of the promotional messages we sent through the CAFES database, we could see that there were 174 instances of people clicking on links to the CAFES webpage with the workshop Eventbrite links or to Eventbrite pages directly. According to the insights on our Meta accounts, we reached 2137 people with our Facebook and Instagram posts, and recorded 106 clicks within the posts we made on Facebook. It was not possible to record the clicks from Instagram as our Linktree account does not record analytics. On Twitter we recorded 203 engagements with our tweets about the events. It is impossible to know how many of these impressions/ clicks or engagements led to a sign up for the workshops.

Based on the participant survey results, only 26 people answered how they found out about the workshop they attended. The table below shows the results.

How people found out about the CRDs	Number of people
Community Association	8
Word of mouth	4
Email	4
Social media (Facebook or Instagram)	2
City of Ottawa newsletter	2
CAFES newsletter	1
Online	1
CAFES event	1
CAFES Climate Caucus	1
City Councillor newsletter	1
Greenspace Alliance	1
Total	26

The list below provides the analytics of the City's promotion in the climate change newsletter. It is evident that newsletters that focused on the dialogues uniquely were the most beneficial.

- June 26
 - EN: sent to 8295, unique clicks on West Carleton event 1
 - FR: sent to 487, no clicks on workshop links
- June 16
 - EN: sent to 8275, unique clicks on Engage Ottawa events page 35
 - FR: sent to 484, unique clicks on Engage Ottawa events page 1
- May 24
 - EN: sent to 8222, unique clicks on Orleans (2), Riverview Park (1)
 - FR: sent to 479, no clicks on workshop links
- May 10 (focussed just on the workshops)
 - EN: sent to 8225, unique clicks - Engage Ottawa events page (52), Virtual (16), Ward 15 (10), Dalhousie (9), Old Ottawa East (7), Barrhaven (7), Wards 12+13 (6), Riverview Park (3), Orleans (3), Burritts Rapids (5)
 - FR: sent to 482, unique clicks – Engage Ottawa events page (2), wards 12+13 (1), virtual (1)

It was not possible to gather complete analytics on how event attendees found out about the CRDs for several reasons. First, the workshops were promoted through various channels by Community Association partners, and we do not have the analytics from their social media posts, newsletters or email blasts.

Nor do we have analytics from the cases where CAs went door to door to promote the workshops or put up posters. We are also missing analytics from the several local newspapers we asked to promote the workshops, and the analytics from the other organizations we asked to help promote through their channels.



The experience demonstrates that a large and broad-based effort is necessary to stage a well-attended set of consultative workshops of this nature. The CAFES network is well-suited to the task.

Volunteer management

We asked our co-hosts to find volunteer facilitators and note takers for the events. We also did multiple callouts for volunteers from CAFES directly. In total around 70 volunteer facilitators and notetakers participated in the workshops. We created information kits for facilitators and hosted multiple virtual calls to onboard volunteer facilitators. The information kits for facilitators included an overview of the project, the agenda for the workshop and the project goals. The kit also provided detailed instructions on facilitating the discussion sessions, facilitation scenarios and example phrases to use in different situations (for example keeping the discussion on topic) and reminders to ensure that all participants had an opportunity to speak. The kit further provided information on preparing for possible inappropriate or disruptive behaviour. At facilitator meetings we explained the information outlined in the toolkit and answered questions. Facilitators, and later the report editors, were provided with an understanding of the scope and boundaries of the workshops and were instructed to keep the discussion focused.

We contacted all volunteers leading up to the events, oftentimes on an individual basis, to ensure they had all the relevant information to support the workshops.

Collaboration with the City's Climate Change and Resiliency Unit

The City of Ottawa's Climate Change and Resiliency Unit staff were directly involved as partners and collaborators from the beginning. The CAFES staff team had regular meetings with

City staff to design and deliberate on the format, agenda, content and promotion of the workshops. City staff provided slides on projected climate impacts and risks, as well as resources to share with workshop attendees. The City also promoted the workshops through their Climate Change newsletter, the Climate Resiliency Strategy Engage Ottawa webpage and through some paid social media posts. The City sent staff to attend all of the workshops as resource people and to bring various local maps related to flooding and heat as well as City information and resources.

Dialogue format and overview:

Co-hosting community association representatives gave opening remarks and often gave local examples of how climate change has affected their communities/ wards. In some cases, ward Councillors also added welcoming remarks. Executive Director of CAFES Angela Keller-Herzog, then began the workshop with a presentation to lay out the context, scope and objectives of the workshop as well as provide information on climate risk and impact projections. This included referencing the role of the International Panel on Climate Change (IPCC) and the work on detailed climate projections by the City of Ottawa and the National Capital Commission (NCC).

Information presented included a history of atmospheric CO2 levels, a scale of climate change projections for the Ottawa region, as well as relevant term definitions such as resiliency, mitigation, and adaptation. Information on climate projections presented was the four climate hazard areas: extreme heat, changing seasons, more rainfall and extreme weather events.

To help participants to begin to think about what actions can be done at the community and City level, existing resources, research and examples were shared to depict some examples of how communities and municipalities can prepare for climate related changes such as extreme heat, more rainfall, changing seasonings, and extreme weather events.

For the break-out table discussion portion of the event, we asked two broad questions of participants:

- How is climate change impacting you and your community?
- What are possible responses at the individual, community and city level?

At most workshops, we organized the discussion around the 4 main climate hazards (extreme heat, changing seasons, more rainfall and extreme weather events), but the configuration of break-out tables varied. Attendees were invited to write their responses to these questions on sticky notes, and the discussion was organized around sharing sticky note responses and grouping similar ideas together. Table report-backs and commitments for follow-ups with participants and the community associations with the draft workshop reports then closed out the workshops.



Synthesis of Findings

After each workshop, we compiled all the sticky notes and notes from note takers to write a report. In the reports, we categorized the concerns and responses and grouped them in tables. In the case where the discussion session was organized by climate hazard area, this was reflected in the report.

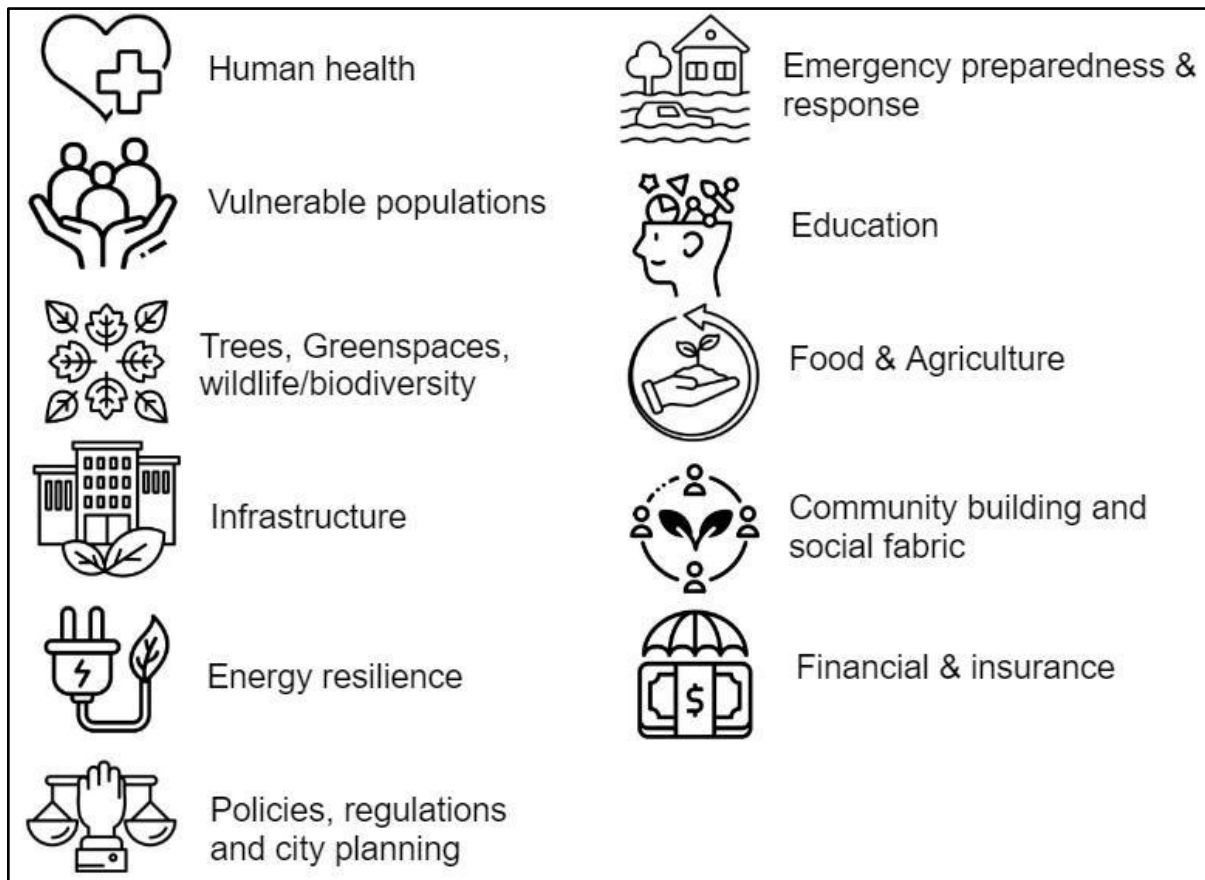
The concerns and responses from all of the workshops were compiled and synthesized into categories based on common themes that we identified throughout the workshop series. The responses were then further categorized at the individual, community and City level, also by thematic area. While we did not count the number of common responses, we have indicated where concerns and responses were expressed across several or many workshops.

4. Findings: What we heard

The following section will synthesize the concerns and climate risk responses highlighted across all 11 workshops based on the identified themes. The solutions are also categorized into responses at the city, community and individual level.

4.1 Concerns: Climate Risk Perceptions at Community Level

A number of recurring concerns were shared across the dialogues. They can be grouped into the following themes.



Human health- mental and physical:

- Heat related illness
- General discomfort/ degradation of health due to increased periods of hot weather
- Poor air quality due to wildfires was raised at several workshops
- Mould from flooding
- Diseases due to contaminated water
- Slips and falls during and after extreme weather events
- Vehicular accidents during and after extreme weather events

- Illnesses and diseases from ticks and mosquitoes
- Lack of time spent outdoors for various reasons and associated impacts on mental and physical health
- Climatic events impacts on maternal health, effects on foetus and parent
- Mental health impacts:
 - Toll of concurrent or consecutive events (e.g. there is volunteer burnout in West Carleton where there have been several extreme weather events in the last few years)
 - Uncertainty associated with climate events
 - Difficulty planning everyday lives and into the future
 - Existential fears and eco-anxiety (notably for youth)
 - Increase in irritation and violence with rising temperatures
 - Isolation of seniors, development of dementia
- Ability of the healthcare system to adapt to climate change and respond to crises.

Vulnerable/ marginalized populations

The disproportionate impact of climate change on vulnerable and marginalized populations, and lack of resources to adapt to climate impacts was a common theme throughout the event series.

- Concern for individuals who do not have access to air conditioning or proper housing that is resilient to climate impacts, and for houseless individuals.
- Renters who have little control over their housing and level of preparedness it has for flooding, heat and extreme weather events.
- Those living in tall apartment buildings without access to backup power sources.
- Impact of climate change on those with mobility challenges, disabilities and pre-existing health conditions such as heart conditions, asthma, and environmental sensitivities.
- Difficulty for some populations to access resources that build resilience, for instance some resources that bolster resilience are only available to homeowners and not renters.
- Marginalized groups who are already lacking resources will have greater difficulty accessing resources during and after climatic events.
- Economic implications of extreme weather events on already marginalized groups.
 - Not everyone can afford to buy new food when food spoils during power outages, or afford to repair mould damage to homes after flooding.
 - Difficulty for some to connect online to receive warnings and updates on extreme weather events, and that not everyone has equal access to technology and the internet.
- Not recognizing or planning to support vulnerable and marginalized groups, and them subsequently being “left behind” in the response to climate impacts.



Trees, greenspaces & wildlife

A great deal of concerns had to do with how the natural world will be negatively harmed by climate impacts, and lack of greenspace to make communities resilient to climate change.

There were many impacts of concern to trees and greenspaces:

- Heat and drought
- Wildfires
- Damage from storms and flooding.
- Trees and greenspaces are required to mitigate climate change and build resilience, but are being damaged and lost to the impacts of climate change and unabated urban development.
- Loss of large canopy trees to mitigate urban heat islands and that even if we plant trees now, they won't provide all the same benefits as this takes years.
- General lack of greenspace across the city to adequately build resilience through shade, water absorption, etc,
 - notably a lack of equitable coverage of greenspace across neighbourhoods.
- Impacts of heat on wildlife, and their ability to find places to stay cool.
- Impact of extreme weather events on wildlife directly, and indirectly through water contamination, loss of habitat and the spread of invasive species.
- The biodiversity crisis, and the loss of biodiversity to climate impacts.

Infrastructure & Energy

- Damage from climatic events to infrastructure such as homes, buildings, roads and pathways.
 - due to flooding, storms and wildfires damaging infrastructure.
- Energy concerns
 - The energy grid being too centralized.
 - The centralized energy grid being vulnerable to disruptions and that energy resilience requires local generation (both conventional generators and renewable generation) and local energy storage capacity.
 - Power outages and associated economic and health and safety impacts.
 - The reliability of renewable energy sources.
- Lack of infrastructure
 - Lack of active and transportation infrastructure
 - Lack of public transportation- notable in rural areas

- Critical infrastructure stability and resilience
 - Water treatment
 - Sewage
 - Emergency health and community shelter facilities.
 - Updates to building codes

Policies, Regulation and City Planning

There were many concerns regarding either a current lack of policies and regulations, the way they are enforced, and City planning and development.

- Many concerns had to do with urban development on greenspaces, and wetlands in particular, and this hindering climate resiliency.
- General concerns about the built environment and development making communities vulnerable to climate impacts like flooding.
- Lack of development standards and requirements for climate resilient building e.g. building on flood plains at Petrie Island.
- Current municipal policies or processes posing obstacles to community-led actions such as for example policies that prohibit planting gardens on the City right of way or requiring insurance and permits for community volunteers wanting to combat invasive species in parks.
- Confusion regarding jurisdictions/ responsibilities between all three levels of government and the NCC.

Emergency preparedness & response

Many concerns were raised regarding the emergency preparedness of communities and emergency response. Concerns included

- Uncertainty regarding extreme weather events and a fear of a lack of preparedness at all levels.
- Lack of capacity of essential and emergency services and infrastructure to withstand extreme weather events
- Challenges accessing appropriate agencies and resources during and after emergencies.
- Lack of capacity related to a lack of emergency responders, notably firefighters.
- Lack of equal coverage of services across the city, with some concerns about a general lack of emergency services in rural areas.
- Resources being diverted away from services to respond to climate events and the capacity of services and infrastructure to respond to overlapping emergencies.



- Alert systems
 - Lack or inadequacy of alert systems, notably when alerts and updates are provided online when many have lost power
 - Lack of real-time information on available resources, where to go and what to do during emergencies.
 - Individuals not being motivated to prepare for emergencies due to the perception that the onus for preparedness is entirely on governments.
- Shelters
 - Lack of emergency shelters or public respite centres
 - Lack of resources in communities to respond to emergencies, such as community owned generators
 - Keeping residents safe in emergency shelters or public spaces.

Financial concerns

There were many concerns about the financial impact of climate impacts (notably flooding and extreme weather events) on communities and households.

- Economic impact of climate change on the city and its ability to prepare for and respond to climate impacts.
- Insurance costs rising as climate change impacts increase in frequency and severity.
- Ability of Community Associations to afford insurance for projects and this being a potential barrier to action on building climate resiliency.
- Cost of implementing Energy Evolution, the City's climate action plan.

Education

There were many concerns about a lack of knowledge of climate change, impacts and risks.

- Lack of information dissemination on what measures individuals and communities can take to build climate resiliency
- Lack of understanding of how to individually stay safe in the face of climate impacts, e.g. how to stay cool in extreme heat.

- How people can get informed of what climate resiliency measures they should be taking, e.g. “how do I know if I need a backwater valve?”
- Loss of knowledge of generational at-home cooling methods.

Food & agriculture

There were several concerns raised regarding the impacts of climate change on agriculture and food security.

- Impacts of increased rainfall and flooding and changes to the water cycle on agriculture
- Climate change causing delayed crop planting
- Loss of availability and rising costs of local food
- Loss of farmland due to climate impacts, exacerbated by development and sprawl
- Availability of food and possible impacts on the city’s food supply

Community concerns

Community concerns included,

- Climate impacts reducing opportunities to do activities outdoors
- The loss of cultural events
- Potential loss of business for local businesses
- Lack of community capacity to build climate resilience and support their residents.
 - Difficulties securing funding for community projects
 - A general lack of volunteer capacity
 - Difficulty navigating confusing City processes when working on projects.
 - Lack of social capital and sense of community

4.2 Climate Risk Responses: Community Perceptions on Solutions and Risk Mitigation Actions

Many suggestions to build climate resilience were generated across the community dialogues, on a wide range of topics. For community specific suggestions please see the individual reports [here](#).

The following sections will present the climate risk responses at the individual, community and city level. The responses are categorized into themes at each level. Some of the themes change slightly between the three levels of action. The main responses have been synthesized in tabular format below. For a full narrative format, please see Annex A of the report.

4.2.1 Climate Risk Responses by Theme



Trees, Greenspace, Green Infrastructure and Wildlife

Individual level	Community level	City level
Plant and care for trees	Plant and care for trees, advocate for shade trees in public spaces and street scapes	Plant, care for and protect trees and expand greenspaces, parks and wetlands
Plant native species and drought tolerant species with long roots	Plant native species and drought tolerant species with long roots	Plant native species and drought tolerant species with long roots
Create pollinator and/ or rain gardens	Create pollinator and/ or rain gardens	Create pollinator and/ or rain gardens
Collect rainwater	Collect rainwater	Enforcing an automatic replacement of downed trees, create an app to report damaged/ downed trees
Replace asphalt with permeable pavement	Replace asphalt with permeable pavement	Replace concrete with permeable pavement where possible, create bioswales throughout the city, invest in green infrastructure
Use eco-friendly alternatives to road salt and avoid using pesticides	Create bioswales, create green roofs where possible	Label invasive species in the city
Learn to respect urban wildlife	Promote rewilding lawns with native plant species	Create a wildlife management strategy
Clear brush and previous storm damage	Clear brush	Provide supports to residents to clear brush (wildfires)
	Renaturalize river shorelines	Create a plan to protect wetlands
		Create/protect dual use greenspaces for recreation and flash flooding stormwater catchment



Infrastructure and Energy

Individual level	Community level	City level
Improve energy efficiency of home,	Enable community centres to function off grid during extreme weather events with backup power (e.g. generator, batteries, on-site renewable energy generation)	Bolster/ harden critical infrastructure to climate impacts - water, electricity/gas, sewage, hospitals and emergency health
Buy back up generators/heating system	Enable community centres to be emergency communication nodes	Create infrastructure to protect from climate impacts (e.g. levees, stormwater ponds, green infrastructure);
Extreme heat: Install a heat pump for heating and cooling, paint roof light colour, install shutters	Creating microgrids using renewable energy	Ensure that critical infrastructure and communications facilities have back-up power.
Flooding: install a backwater valve and/ or sump pump, point downspout away from driveway, remove debris from storm sewers		Create community infrastructure to build resiliency, e.g. splash pads, cooling centres, emergency shelters, more drainage systems, more active transportation infrastructure
Install solar panels on roof to produce energy		Create microgrids throughout the city and support residents putting solar panels on homes and businesses
Buy back-up battery for sump pump or generator		Lobby other levels of government for permitting and incentivizing localized renewable energy generation
Depave and/or install permeable pavement		Bury power lines
		Mandatory air conditioning in seniors' and long-term care centres

		Ensure that essential services have comms and back-up power and can function in extreme weather events
		Plan for 'powered down' state of Ottawa with electricity circuits for priority installations and services; and alternate power sources & generating capacity routed to these priority needs in case of medium to long term grid outages (e.g. power from Chaudière falls or from Quebec grid)



Emergency Preparedness & Response

Individual level	Community level	City level
Create a personal emergency plan, kit, food store, to go bag	Create community level emergency plans	Create detailed frameworks for community emergency plans
Volunteer for a Community Association/ the City to check on people during emergency situations	Create lists of vulnerable community members, people with tools/ skills useful for emergency situations, community centres with generators	Provide training and support (financial, insurance and other) for community preparedness
Check on one's neighbours during and after extreme weather events	Organize support networks and volunteers to check on others during extreme weather events	Create more emergency shelters
Hold City council accountable	Create lending libraries	Provide resources for communities to share during extreme weather events (e.g. support getting community generators)
Landlords: Create emergency plans for buildings	Create community alert and communication system including assigned roles and responsibilities for CAs and Ward Councillors	Create alert and communications systems that don't rely on wifi, cell, internet or grid electricity

	Schedule a "planning day" to promote climate preparedness	Create comms and threat assessment capacity that includes integration across services e.g. water, sewage, gas lines, power, police and has alternate/back up power
	Communications systems (technology, equipment) that connect to municipal and national emergency systems e.g. satellite phones	Create preparedness plans for health and mobility services during emergencies and power outages



Food and Agriculture

Individual level	Community level	City level
Farmers: plant drought resistant crops, reduce the use of chemical fertilisers and pesticides	Supporting farmers markets and community supported agriculture	Promote eating local food & support farmers markets
Grow food in personal or community gardens	Create (more) community gardens	Create more community gardens
Support local farmers	Create community fridges and freezers	Create a seed bank to protect local plants
	Work with the City to create local plans for local food security and equity in accessing food	Support/ promote local and sustainable farming practices
	Create cooperative community gardens	



Community Building & Social Fabric

Individual level	Community level	City level
Get to know one's neighbours	Organize community events and activities (e.g. block parties)	Creating partnerships with communities for resiliency activities
Support local organizations and Community Associations	Create neighbourhood watch programs for climate emergency situations	Engage citizens as volunteers
Share resources with others during emergency situations	Create social media pages and groups to share information on resiliency and preparedness, as well as alerts	Consider marginalized and vulnerable people in resiliency planning
Galvanizing others to participate in advocacy for climate resilience	Deep canvassing to discuss climate risks, the importance of preparedness	Create a "climate change mayor" (like the "night" mayor) to highlight best practices to citizens



Education, Awareness and Incentives

Individual level	Community level	City level
Get informed on preparedness for climate impacts	Organizing workshops on climate preparedness (e.g. preparing one's home for flooding, preparing for extreme heat)	Supporting community workshops on resiliency and preparedness
Share information with friends, family and neighbours about climate preparedness	"Train the trainer" model of workshops	Train the initial trainers
Attend community events to get to know one's neighbours	Share information on climate impacts and risks, and resources for individual preparedness through community newsletters, social media pages and events	Disseminate information through various modalities
Participate in campaigns to monitor air quality	Create a community level committee to help people identify retrofits they could make use of for their property to build resiliency	Learn best practices from other municipalities
Participate in advocacy efforts that build City resilience and connect to ward councillors	Organize community drain audits	Provide incentives for actions that build climate resiliency e.g. roof tie-downs/ hurricane straps; back flow valves; soak pits; solar panels
	Increase literacy regarding insurance (home insurance policies and emergency coverage)	Increase the ease of finding information in City documents and on City website



Policies, regulations and city planning- at the City level

- Strict building codes & development standards that are informed by updated climate risk information regarding wind (tornados), heat, flooding risks (river and overland) and wild fire
- Ensure that green building standard includes measures for climate mitigation and adaptation
- Prohibiting certain building practices e.g. paving over all greenspace in a lot
- Enforce the tree protection bylaw and establish setback requirements that permit enough space for canopy trees to create shade in heat islands
- End cash in lieu of greenspace
- Establish setbacks between agriculture land and waterways
- Require landlords to install cooling devices
- Change City bylaws that restrict actions that build climate resiliency
- Audit utility practices that hinder household resilience
- Build 15-minute neighbourhoods

Partnerships and Planning- at the community level

There was a general recognition that institutional and volunteer capacity at community and neighbourhood level is quite limited. Suggestions included:

- Build partnerships with the City to promote climate resilience and preparedness
- Collaborate with environmental and sustainability organizations
- Learn best practices and innovative programming from other cities
- Invest in community cohesion, community fabric and community-building



We learned that people see roles for individuals, communities and the city in building climate resilience. There is a genuine level of concern that was presented across the workshops for fellow community members, vulnerable residents, and the need for community preparedness. Clearly, the people that chose to volunteer their time for attending a workshop on climate resiliency can be expected to have a higher level of awareness and interest than the average resident.

We learned that while people feel that their communities are currently not prepared to face climate impacts, they have many ideas on preparedness and view *community building* as vital to building resilience. We feel it is possible that this reflection was brought on in part due to the fact that the workshops brought people together to discuss ideas collectively and it is possible that this would not have been a major outcome of a survey.

Aside from West Carleton Disaster Relief, no community association/organization has an emergency preparedness plan in place. Roles and responsibilities of community associations and ward councillors in case of climate emergencies are undefined. At the Hintonburg workshop, one community association board member commented, “we started talking about it and realized that we had no idea of even where to start”.

Based on the participant feedback and the results of the workshops, there is interest for more workshops or training on climate resiliency, notably on more specific topics to help individuals and communities prepare for specific climate impacts.

4.2.2 Differences between Workshops

There were a few notable differences between workshops based on geographic location. First, workshops that took place in urban areas placed a specific emphasis on the need to expand the tree canopy and greenspaces, where this was emphasized less at our two rural workshops. Conversely, wildfires were a large concern at rural workshops, as was the loss of power causing other major difficulties such as a loss of water and sump pump functioning. While food security was a concern across all geographies, there were more specific comments related to agricultural conditions at the two rural workshops.



4.2.3 Out of Scope Comments

There were a handful of people who attended the workshops with the intention to debate the reality of climate change. Comments negating the reality of climate change were out of scope and not included in the reports.

4.2.4 Comparison of CRD Concerns to CVRA Top Risks

Many of the concerns raised at the Climate Resiliency Dialogues were identified in the City's Climate Vulnerability and Risk Assessment top risks. This overlap was likely also encouraged by the workshop opening briefing and structuring of discussion by climate hazard areas. That said, there are some significant differences, and some differences in emphasis and granularity.

Under the category of Extreme heat, the CVRA notes stress to trees as a top risk. Through the CRDs, concern was also expressed for the wellbeing of wildlife, biodiversity and ecosystems more broadly.

The CVRA top risks identify a lack of air conditioning as a top risk while the CRDs raised several concerns related to increased AC use, such as increased GHG emissions, increased cooling costs and grid failure and brownouts. The CRDs then also raised this as an issue subject to regulation.

There were also some concerns raised at the CRDs that did not factor into the CVRA's top risks. First, there were many concerns raised about the mental health impacts of climate impacts, not only due to experiences of climate impacts but also in terms of thinking about the future climate reality.

While the CVRA mentions the impacts of extreme weather events on vulnerable and marginalized groups, the CRDs raised concerns for these groups related to all climate hazard areas.

The CRDs raised concerns about consecutive or coinciding climatic events and the ability of communities and the city to respond and bounce back from them.

There were concerns raised about the decisions taken by City council that could undermine climate resilience, as well as difficulties that individuals and communities experience navigating municipal procedures when trying to undertake projects that could bolster resiliency.

Finally, there were concerns raised about the capacity of communities to respond to climate events and build resilience, and concerns that communities lack social capital generally speaking.



4.2.5 What participants wanted to learn more about- opportunities for future workshops

Throughout the workshops, there were many suggestions for more information to be shared, more educational events and workshops on various aspects of preparing for climate change. Also, we asked if participants would attend future workshops and what topics they would like to see covered. The list below details this feedback.

Emergency preparedness

- Creating neighbourhood plans
- Making emergency kits
- Neighbourhood mapping of skills/ resources/ tools
- Where to access resources during extreme weather events, e.g. cooling/ heating centres, where to access water and shower facilities
- What to do when the power goes out in rural communities
- More rainfall:
 - Basement flood readiness: share information on sump pumps and backwater valves
 - How to prepare for flooding
 - Stormwater management
 - How to make a rain garden
 - What to ask insurance providers about flood insurance
- Heat
 - How to prepare for extreme heat
 - At home cooling methods that don't require air conditioning
 - First aid training for heat related illness

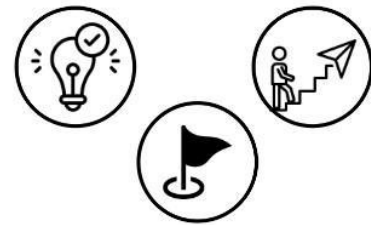
- Food
 - How to grow food
 - What the City is doing to support food security
 - How to support preservation of farmland
 - How indigenous knowledge is being sought, and integrated, in agricultural land management practices
- Current initiatives and programs in place to build resilience
- Building community
- Communicating on climate change
- Advocating to municipal and other levels of government on climate change and resilience
- Energy systems/ grid
 - Who is working on community energy projects
- Natural world
 - Biodiversity and preservation of our natural spaces
 - Managing invasive species
 - What species of trees to plant based on local ecology
- Holding space for climate emotions
- Increasing community resilience and examples from around the world
- More information on climate risks and what is being done at different levels of government
- How to support the implementation of Ottawa's climate adaptation plan



4.3 How the Community Resiliency Dialogues were Received

4.3.1 Participant Survey Results

The participant feedback survey was administered together with the restitution of the draft workshop reports. We received 47 responses to the survey, from participants from all workshops. The majority of respondents (17%) had attended the Old Ottawa East or Wards 12/13 workshops.



Motivations to attend the workshop	% of respondents
"to share my thoughts on actions to take for climate resiliency"	72%
"to learn more about community preparedness"	61%
"to learn how to take action on climate change"	57%
"to learn more about climate resiliency"	54%
"to meet my neighbours/ fellow community members"	44%

Event Experience	% of respondents who
"How useful did you find this event in providing a chance to share your community's climate resiliency concerns and learn about other community members' concerns?"	68% selected 4 or 5 on a scale of 1-5 (where 1 was not very useful and 5 was very useful)
"How informative and thought-provoking did you find the opening presentation?"	68% selected a 4 or 5 on a scale from 1-5 (where 1 was not at all and 5 was very)
"How satisfied were you with this event overall?"	64% selected a 4 or 5 on a scale from 1-5 (where 1 was not at all and 5 was very) to answer

“Were you able to easily share your ideas during the breakout discussion session?”	79% responded “yes” to the question
“How well organized was the event?”	85% selected a 4 or 5 on a scale from 1-5 (where 1 was not at all organized and 5 was very well organized)
“Did you meet any new people from your community?”	94% responded yes that they met someone new at the workshop they attended.

Comments on the background presentation:

There were several comments made on the background presentation given at the workshops. While most respondents found the presentation useful and informative, some comments expressed dismay at the fact that the presentation did not centre on climate change mitigation, and a couple suggested it might have been helpful to add more information on current community or neighbourhood initiatives to build climate resilience.

Comments on the discussion portion of the events:

Several comments suggested that there was too little time to discuss climate resiliency in a fulsome way, and a couple suggested that too much time was spent discussing concerns and not enough time spent discussing solutions. Others shared that there were many opportunities for contributions, and that it was well organized. One comment was that “All [facilitators] were very well informed and skillful at managing and all aspects of the discussion.”



Other comments on the workshops:

Several comments reflected an interest in future events to begin to create community plans and take more steps toward building climate resilience within communities

Comments in relation to the question “Did you learn something new at this event? If so, please share an example below” presented answers such as learning interesting climate resiliency ideas from other participants; environmental facts; the ability to participate in Ottawa’s official plans; how to take action towards achieving climate resiliency goals; the sense of not being alone with climate anxieties and concerns; the scale and range of climate change impacts expected in the NCR; CA or community environmental committee existence; and resources available for education and resiliency preparation.

In response to the question “What’s one takeaway you have for action?” there were a wide range of responses, including checking up on older neighbours, getting to know neighbours, stewarding greenspaces, pay more attention to weather warnings before physical activity, work to develop community microgrids, and joining a local community association environmental group.

Most participants found out about the event through either a news email from the city, their councillor, or their community association. Followed by participants learning of the event through CAFES outreach, social media, or word of mouth.

Over half of respondents answered that they would attend a future workshop on how to take action and prepare for climate change. Some topics of interest shared were removing invasive species, encouraging local agriculture, community emergency preparedness plans, holding space for emotions about the climate crisis, responding to power outages in rural areas, creating a personal emergency kit, and building community.

4.3.2 Climate Caucus Feedback

Beyond the positive feedback received through the participant feedback survey, CAFES convened its Climate Caucus on July 14th, including a special invitation to the Climate Resiliency Dialogue co-hosts in order to debrief on the experience. The intent was to find out both a reflection on the process of the dialogues and learn more about follow-ups planned.

Despite the mid-July timing about two dozen attendees joined up for the Climate Caucus meeting. They were asked to share their thoughts on the engagement process of the Climate Resiliency Dialogues, since

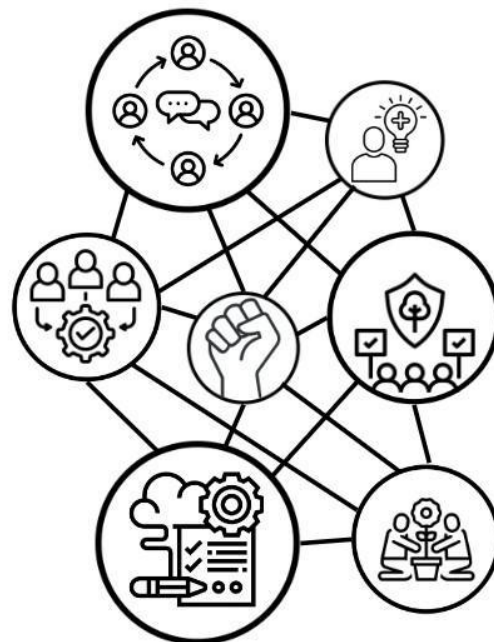


was very different from usual engagement processes to provide input on City plans. The response was very positive- CA representatives approved of the process and felt that it was meaningful. There was one suggestion that future events related to climate resiliency be framed in even more positive ways, or incorporated into other events like community scavenger hunts or barbecues. There was another suggestion that different methods for discussion be considered to allow people to speak better to their own knowledge and expertise.

4.3.3 Testimonials

Certain findings from the events could not be captured by the sticky notes, but were important nonetheless. After many of the events, we heard from participants that they met community members/ neighbours for the first time, that they got connected with their Community Association or other organizations. We believe that this is an integral part of building climate resilience-building community. Some testimonials support this idea:

"I was very pleased to meet several members of [a local Community Association] in person. It was also interesting to learn about some of the CA's environmental concerns that I was unaware of. Thanks to this meeting, I was able



to put two residents in touch with their Community Association regarding pollinator garden projects. I also met a member of an environmental group, and an artist from the area, who is very active in promoting the environment through art.”

“[The event] did validate and encourage environmentalists from different areas and with different specializations to connect and inspire.”

“I moved to Ward 5 during the pandemic so I had yet to get involved in my community. It was a great experience to be able to participate in the workshop, discussing the environment and climate change, two topics that are really important to me, and have the chance to meet and converse with my neighbours! I’m grateful to have the opportunity to share my thoughts on how our ward can be disaster-ready in the face of climate change.” -Holly Gordon, West Carleton dialogue participant

Several people who filled out the participant survey mentioned that they were able to meet others, or that a takeaway from the workshop they attended was to check on others and build community:

“I learned that there are folks in our community who are interested and concerned about this issue. Thanks!”

Takeaway: “Getting to know neighbours before extreme weather events”

Takeaway: “We as a community need to work with the City to mobilise community-level preparedness.”

Takeaway: “Good format with a lot of discussion about what resilience means to different people. Most of my work on climate has been on a broader level. It was nice to get down in the weeds to discuss specific measures and solutions focusing on preparedness and adaptation.”

On July 14th we held a Climate Caucus meeting to discuss the findings from the climate resiliency dialogues and to discuss possible next steps. We received testimonials from several attendees and workshop co-hosts

“It was a very productive process and a wonderful opportunity to meet like-minded folks...SCAN [Seniors for Climate Action Now] got two new members thanks to the first one.... Now what I hope for is a positive response from the City, unlike what it’s been like for community association’s trying to negotiate development”

“I appreciated the opportunity to take the time to discuss these issues with my neighbours in a small group around a table. The open-ended format was helpful to elicit new ideas rather than completing a questionnaire. I learned a lot by listening to others.”

“There is hope in action. I found the workshop format to be valuable as it convened people in our vast rural riding. Sharing specific concerns and making community connections was refreshing.” -Burritts Rapids Dialogue attendee



“The Climate Resiliency workshop in Kanata was well attended and had informative presentations as well as opportunity for small group discussion. I enjoyed hearing issues and solutions discussed by my neighbours.” - Bev Johnson, President of Kanata Lakes Community Association

“This was a very effective consultative process. The opportunity to meet in person, sharing thoughts and ideas was very effective. We benefited from a sharing of best practices, expanded our network, and came together with a common voice.” - Mark Willcox, Rockcliffe Park Community Association.

“[The engagement process] worked well here in Hintonburg where we invited three other community associations to join us that evening. People from a wide range of ages attended, lots of ideas shared. Well organized by Mary and Angela. Having some snacks and drinks was a nice touch.”

“I went to the workshop to be told what solutions to invest in for my house. I didn’t realize that that information isn’t cut and dry and some expert can’t just hand out solutions that work for everybody. It was an eyeopener. I’m very impressed by the work that has/is going into this. I like that it is so interactive.”

4.3.4 Lessons Learned

Time and relationship building

There were many lessons learned throughout this project. First, we learned that organizing and hosting 11 community events to foster discussion on climate change topics is more time intensive than we anticipated at the outset. We also found that the resulting discussions were rich and rewarding and many residents are incredibly generous in sharing their time, effort, thoughts and care for their fellow community members.

Community organizing requires initiating, building and managing interpersonal relationships. This is time consuming. We learned that it can be more time consuming and difficult to collaborate with multiple CAs at once, in terms of communicating information and asking questions of more people, and trying to schedule meetings with more people. It can also be difficult where there are differing opinions and ideas amongst one group. At the same time, it can be rewarding to bring together multiple CAs from different neighbourhoods within the same ward in terms of increasing the reach of an event and supporting collaboration and information sharing between neighbourhoods.

Engagement

We learned that it is difficult to engage community volunteers and event attendees post-covid. We had expected CAs to be able to provide volunteer facilitators and note takers relatively easily, since they tend to have executives, committees and general members. We learned that in many cases, CAs feel that they have been lacking volunteer capacity since the start of the pandemic. There are mixed views regarding in-person events: some people continue to apply caution regarding in-person events (one reason why the project decided to extend its scope and program one virtual workshop). On the other hand, there was quite a lot of enthusiastic feedback from participants saying it felt so good to be finally seeing members of the community in person again.

Promotion

Regarding event promotion, we learned that there may be merit in providing more structure and guidance to CAs to promote events. For instance, we provided CAs with promotional materials and sent multiple reminder and check in messages about promotion, but in future it might make sense to outline a suggested number of social media posts/ email blasts to event partners.

Engaging volunteer facilitators

We chose to use community volunteers as facilitators and note takers for the dialogues. There is a lot of value in this since often our facilitators were community members with local knowledge and connections which could enhance their facilitation. At the same time, engaging people who are not professional facilitators meant that there were varied results in terms of their level of ease in guiding discussions, and making sure all participants were heard. Another important aspect of working with a team of volunteers to organize these workshops is the cost. This was by far the most cost-effective way of organizing the workshops as hiring between 3 and 7 trained facilitators for each workshop would have cost a great deal.



Various factors influence group discussions

In addition, we learned how a multitude of factors affect the end results of community led discussion such as ours. For instance, we created materials to guide the volunteer facilitators and note takers, and met with facilitators to explain the sequence for the discussion sessions as well as general guidance on the role. Once the discussion sessions commenced, we had little control over whether facilitators followed the guidance that we provided. Also, the direction taken by discussion groups is also heavily dependent on the attitude and behaviour of the group members themselves. For all the workshops, there were three CAFES staff present who actively monitored the conduct and progress of the break-out groups. In some instances, CAFES staff joined the discussion at the table to encourage more balanced participation (typically where a facilitator or participant was becoming too dominant), or to provide guard rails for the scope of the discussion as time was limited. City staff were also present at the workshops to listen to discussions and speak to the resources they provided.

Audience

At the outset of this project it was expected that primary types of residents that would be likely to attend the dialogues were, (a) persons already engaged in civic volunteerism through their community association (a population skewed to home owners and seniors), and (b) individual members of the CAFES network, who tend to be already engaged and relatively informed on environmental topics. Significant efforts were made to promote the workshops widely through social media, newsletters, other organizations, and in some cases poster and door-to-door promotion. These efforts were boosted by support from the City's Climate Change and Resiliency Unit through email outreach and sponsored social media posts.

Planning of community engagement could begin with a stronger effort to target segments of the community (diversity and equity objectives) and then designing the event and promotion with different intermediaries. For instance, workshops could be located on university campuses and could be co-hosted by university clubs. Workshops aiming specifically to meet with specific ethno-cultural and socio-economic profile residents could provide an honorarium to attendees,

or offer a full meal and childcare. Time, capacity and budgetary constraints of the project at hand prevented us from pursuing these options.



Disaffected individuals

There were a small handful of disaffected individuals at a couple of the community dialogues hoping to debate the reality of climate change and share climate denial speaking points.

5. Conclusion and Next Steps

5.1 Project Achievements

The objectives of the project as described at the outset have been achieved.



Objective	Result
Organize approximately 10 workshops	11 workshops were organized
Raise awareness through providing information and resources on climate risks and resiliency to residents	Information and resources were provided in emails to registrants before and after events, information was shared through the workshop background presentation and physical resources were shared at the workshops
Foster community dialogue on climate resiliency that serves to, • share perspectives • identify particular areas of concern • identify areas for household, community and/or City action to mitigate climate risks, and build people-to-people community connections on this issue	The dialogues were able to generate discussions about concerns and potential climate risk responses at each of the workshops, and produce a list of actions at the individual, community and City level to build climate resilience. Approximately 500 concerns were shared and over 760 climate risk responses. The workshop format allowed participants to discuss their ideas, leading to more high-quality conversations than other methods of engagement.
Share feedback from the dialogues: • Through the CAFES network and CAFES Climate Caucus to raise awareness and build climate volunteer capacity, and • With City staff to inform the development of the Climate Resiliency Strategy and Action Plans.	The individual workshop reports, the final workshop report and the July 2023 Climate Caucus all serve to give community associations opportunities to share insights from the workshops and discuss possible next steps, as well as feeding into the City strategy and action planning work.

We see a great amount of value in fostering conversations at the community level, for several reasons. First, participants were able to learn from each other's climate concerns and ideas for action. Sharing ideas in a group setting allowed for a "collective brainstorm" in many cases and inspired more ideas, which individual forms of engagement would not have done.

Further, organizing conversations around climate resiliency and preparedness in a group setting allowed participants to observe that others in their community/ ward care about these issues. We believe this to be critical to inspiring future actions as participants will know they are not alone in caring about climate preparedness. Participants were able to connect around similar concerns which fostered liaising resources, personal connections, or new recruitment to existing initiatives in the community.



In a similar vein, the Climate Resiliency Dialogues were an opportunity to discuss actions to build climate resiliency at multiple levels, and to signal to communities and individuals that they have a role to play in preparedness for climate change as well as the municipality. Having the experience of connecting with the community in a positive and safe setting also helped to ease anxiety about connecting with others again post-pandemic.

Organising these community level discussions demonstrates to Ottawans the City's commitment to and keen interest in hearing from them directly and being a part of developing action plans to prepare for the impacts of climate change, in a way that cannot be conveyed through other means of engagement like a questionnaire.

While virtual forms of engagement have benefits in terms of accessibility, it can be difficult to engage people. For example, the City's Climate Resiliency Strategy Engage Page allows people to add ideas on building resiliency to climate impacts, but has few ideas at the moment. While the Climate Resiliency Dialogues generated over a thousand cumulative concerns and ideas for actions, the Engage Page has about 129 ideas as of August 2023.

For community associations, organizing these events meant supporting community association members, and in some cases members across multiple CAs, coming together in person for the first time in months or years. All participating CAs will now have a report with identified concerns and possible actions to take to build climate resilience within their community. This can help inform future projects and be shared on CA websites to demonstrate their interest in climate questions.

There are several ways in which CAFES has supported the volunteer capacity of members. First, volunteers at the workshops gained experience supporting community engagement and discussion processes. In particular, volunteer facilitators gained knowledge and experience guiding group discussions which is a useful skill they can carry forward. CAs may have gained new members. Further, what differentiates this project from other engagement processes, is that there will be opportunities for continued engagement on climate resiliency through the CAFES network in the future. The CAs who co-hosted Climate Resiliency Dialogues can

continue to connect with one another through our meetings and forum. Those who didn't participate will be able to learn about the initiative through our channels and other CAs through these same networks (as was the case at our most recent Climate Caucus where someone from Fisher Heights joined and shared their local plans and intention to remain connected to learn from other CAs' experiences). This means that there will be continued support for volunteers hoping to support climate resiliency in their communities.

5.2 Summary: Actions to Increase Climate Resiliency

5.2.1 Key Actions at Individual/Household Level

- Plant shade trees, pollinator gardens, rain gardens, take care of trees & plants
- Collect rainwater & install permeable pavement where possible
- Home retrofits: For energy efficiency, cooling, sump pumps/ backwater valves, back-up/alternative/renewable power, storm ties, indoor air quality
- Get informed on climate impacts & preparedness
- Prepare emergency kit and go bag
- Connect to community and check up on neighbours during and after extreme weather events
- Advocate to councillors and city council to fund climate resiliency



5.2.2 Key Actions at Community Level

- Plant shade trees, pollinator gardens, rain gardens, take care of the tree canopy, renaturalize river edges
- Create community emergency plan including community alert, communications and roles
- Create multi-unit residential building emergency plans and microgrids
- Share information on climate impacts & preparedness
- Build partnerships with other groups & the City to prepare for climate change
- Help build support networks to check on residents during climatic events
- Help turn community centres into emergency shelters, cooling centres and community communications hubs

5.2.3 Key Actions at City level

Public investment

- Increase the urban tree canopy shade; number of parks and greenspaces for recreation, community building and stormwater catchment (dual purpose); protect wetlands and shorelines.
- Bolster/harden critical infrastructure such as electricity/gas, water, sewage and hospitals
- Create more community-level infrastructure to build resilience (e.g. splash pads, emergency shelters, cooling)
- Build microgrids; bury power lines; and plan for Ottawa energy system resiliency (powered down emergency back-up plans)
- Increase education efforts, provide incentives and supports for actions that build resilience, and build partnerships with communities to prepare for climate change
- Provide communities with a detailed framework for community emergency plans

Regulations, policies & planning

- Create and enforce building codes & development standards for climate resilient buildings
- Prohibit developing on floodplains, wetlands and agriculture land
- Prohibit developments paving over all greenspace in a lot
- Enforce the Tree Protection By-law
- End cash in lieu of greenspace
- Require landlords to install cooling devices
- Change City bylaws (and utility practices) that restrict actions that build climate resiliency
- Create a plan to protect wetlands
- Build 15-minute neighbourhoods

5.3 Key Takeaways



5.3.1 Communities around Ottawa are not prepared for climate disasters

The current level of community emergency preparedness is very low. We learned that individuals/households do not have emergency kits or to-go bags prepared, that they do not know where to access information about extreme heat or extreme weather conditions, nor do they know what supports exist to build resiliency (e.g. backwater valve grants). Few people know how to figure out what they need to be doing to prepare themselves for climate impacts based on their location.

While there is some growing awareness of climate risks and vulnerability, there is virtually no dedicated capacity in the community for climate resiliency, emergency preparedness and little capacity for self-sufficiency for several days without power in very hot or very cold conditions.

Communities have not begun the process of identifying vulnerable neighbours, of creating community level emergency preparedness plans, and aren't currently sharing information on climate resiliency with their neighbours.

The other side of this coin is the importance of education, incentives and awareness raising. Attendees made clear that they would like to see more information on climate impacts, risks and steps that individuals and communities can take to prepare needs to be shared across a variety of modalities. Communities are also interested in more information on how to navigate municipal departments/ systems to know who to talk to about undertaking community projects.



5.3.2 Communities like being asked what they think needs doing and have informed ideas

From the level of engagement and participation, from the feedback, and from the volume and range of risk mitigation responses received, it is evident that this approach to community consultation can tap a rich vein of deliberation. The 11 community reports are impressive and paint a rich canvass. Many workshop attendees were well-informed and brought a variety of expertise. Community dialogue workshops as a methodology, allow the City to mine community knowledge in a cost-effective manner.

It is clear that while the voices captured are distributed across urban, suburban and rural areas, they are by no means representative of all the people of Ottawa. It is a particular segment of environmentally aware and community- and civically-engaged people that responded to the workshop invitations. With more notice and more resources, future exercises of this kind on

other subjects can also visit other places and partner with other networks - schools, universities, recreation centres, cultural associations etc.



5.3.3 Trees and greenspace investments need to be a leading part of Ottawa's resiliency strategy

By the prevalence and consistency of mentioning trees and greenspace in the climate risk mitigation dialogues, the community is sending a clear message. Urban forest management and the investment in our green spaces must be a key part of our municipal resiliency strategy. The number of inputs in this thematic area are in part due to the convergence of resiliency-benefits from investments in trees and greenspace, including,

- creating cooling and shade from large trees in the inner urban area,
- absorbing storm water in densifying and overland flooding risk zones,
- increasing livability and wellness, and
- supporting biodiversity and creating habitat.

At the same time, it is clear that Ottawa's forests (urban and rural) are also at significant risk from climate change through storms (ice and wind), heat, drought, fire and changing seasons. As such, it stands to reason that in the same way that [resiliency and emergency preparedness studies and action plans](#) are undertaken for airports, sewage or water treatment plans, Ottawa should do so for the urban forest as its critical green asset.



5.3.4 Energy resiliency is at the crux

The conversations in all the dialogues touched on energy resiliency at household, community and municipal level. Many concerns were raised relating to power outages and associated risks, and there were many climate risk mitigation responses related to renewable energy and local energy grids.

Microgrids (a local electrical grid with defined electrical boundaries acting as a single and controllable entity) that are able to operate in grid-connected or island modes often popped up in the workshop discussions. Many gaps remain in terms of understanding the path forward in this area such as what the levers of change are and what the regulatory framework looks like.

Despite this, the community has an expectation that there will be community hubs for cooling and warming those that need it, and that these hubs will have back-up and sustained power. Residents are starting to talk about and raise expectations on distributed energy generation and micro-grids offering community energy resiliency solutions.

The climate change-induced energy transition relates to both mitigation and adaptation. As we increase our dependence on electricity in the midst of increasing climate instability, the importance of energy storage, batteries and back-up power systems increases.



5.3.5 Emergency preparedness is a key concern & where many opportunities for future actions lie

Emergency preparedness was a key concern across all dialogues. Attendees shared major concerns about meeting basic needs in extreme weather events- where community members can go to get shelter, food, water, power, and information. This is also where there were many suggestions for actions relating to community and city alert systems, communications plans and back-up technologies, community and neighbourhood level emergency plans, and resources from the City.

Conversations at the dialogues foresaw the need not only for detailed frameworks for creating neighbourhood level climate preparedness plans, but a program of training and resources from the City. Detailed frameworks can include steps and guidance on creating a community inventory of people to check up on, skills and tools in the neighbourhood, information on respite centres/ emergency shelters, information on how to receive updates from City services and Hydro Ottawa/Hydro One, checklists on supplies communities should have, etc. Suggested resources include training for community leaders on creating, updating and maintaining preparedness plans, staff support undertaking the identified actions, physical resources such as generators for community centres, first aid supplies, funding to purchase food stores or grocery store gift cards.



5.3.6 People are concerned about impacts on vulnerable groups

There was concern expressed across all workshops for vulnerable and marginalized populations, the disproportionate impacts they face, and in many cases the reduced access to resources to be prepared and to bounce back from climate impacts. Targeted follow-up to speak with these residents directly will be needed to create an inclusive Climate Resiliency Strategy.

A majority of workshops recommended that vulnerable individuals in a community need to be 'identified' ahead of climate risks impacting but there is no clarity on how such an 'inventory' of vulnerable individuals or households would be created, or maintained, or through which agency. Anecdotally, there is resistance in rural areas to any kind of 'inspection' of households.

Multi-unit residential buildings (MURBs) were also understood to present particular vulnerabilities. Questions were raised as to requirements and standards for emergency preparedness of MURBs and the desirability of drills to ensure that infrastructure, protocols and behavioural preparedness was in place in practice.



5.3.7 Community building and social fabric is key to community resilience

A large takeaway from the workshops was the importance of social fabric and community building to climate resiliency, and that a large part of increasing climate resiliency is a cultural and social matter. Similarly, the lack of social capital in communities was raised as an impediment to building resilience. Attendees regularly brought up the importance of knowing one's neighbour so that when extreme weather events occur, people already know each other and are more likely to check up on one another and help. Activities to build that kind of community connection were highlighted as climate risk responses many times, ranging from community barbecues to deep canvassing.



5.3.8 People expect to see new and bolstered infrastructure built

Across the dialogues, many concerns were raised about the ability of current infrastructure to withstand climate impacts, and about a lack of infrastructure to reduce vulnerability to climate change. It is clear that the community is expecting investments in bolstering infrastructure and creating new infrastructure to build resilience.



5.3.9 Ottawans are also tracking decisions that undermine climate resilience

Conversations across the workshops were also underpinned by some scepticism. Concerns were raised related to provincial and city council decisions, current policies or a lack thereof that hinder climate resiliency. These inputs related to areas including development standards, building codes and regulations around greenspaces, and lack of protection for urban trees, rural and peri-urban woodlots and wetlands.

Notably, the community has a broad-based and robust understanding of the ecological and hydrological importance of wetlands and the exacerbation of climate risks when this is ignored. The community also believes that it is better to avoid risk and not build on floodplains.

5.4 Next Steps

5.4.1 Possible Next Steps for Communities

At the July 14 2023 CAFES Climate Caucus, we discussed possible next steps with several community associations who were co-hosts of dialogue sessions, and some who weren't. Their respective plans and ideas are detailed below.



Several CAs plan to upload the report from their climate resiliency community dialogue on their website and to report on the event to their board. It is important to note that many community associations take a break during the summer, which means there may be interest on the part of CAs to undertake follow up actions, but these may not be in the planning stages yet. We know of at least three CAs who will be having follow up discussions on climate resiliency at the board level over the summer or in September.

Burritts Rapids Community Association:

“Our community association discussed the value of a community emergency plan, which came up repeatedly during the consultation as something practical that could be done. That conversation led to a couple insights about the concept being important but the reality being that gathering the info can be a lot of work, and if we do it online it won't be inclusive of the most at risk people probably, and beyond this, the truth that plans often collect dust on shelves and aren't updated or sometimes even looked at, whereas the key to local resiliency in emergencies is really relationships more than anything.

So we decided that we would piggyback on our community BBQ this summer to create a sort of community discovery game that would involve everyone being given a task - i.e., find someone who has a generator, or find someone who has first aid skills, etc. and you have to go around and ask until you find someone and then write it on a big board. That way we gather the info but in a relational context, and then we can maybe do it up as a list and make that available to everyone, all while building relationships and strengthening community.

Also, we decided that rather than lots of specific details what was really needed is maybe 3 main points that we need to share so everyone knows the basics, i.e. community hall is HQ in emergencies, everyone check on your immediate neighbours, etc.”

Alta Vista Community Association (AVCA):

The AVCA plans to organize a “Jane’s Walk” in Spring of 2024 to demonstrate how to retrofit one’s home for climate adaptation/resiliency, such as how to retrofit their home with Greener HVAC, driveways, gardens etc. They also plan to organize an event on setting up backup power systems that are cost effective and not disruptive (noisy) during power outages.

Riverview Park Community Association (RPCA):

RPCA recently launched a pollinator garden with Ward 18 Councillor Marty Carr present. RPCA is also affiliated with a pollinator garden at the community garden they belong to. The CA plans to continue to organize events removing dog strangling vine in the community.

Kanata Lakes Community Association (KLCA):

“The KLCA plans to continue efforts to plant trees, set up a community rain garden and also, hopefully, a pollinator garden. We will also continue our environmental news items in our monthly paper.”

Greater Avalon Community Association (GACA):

“The Greater Avalon Community Association in collaboration with Enviro Centre now has a demo rain garden at Aquaview Park which is meant to promote and to encourage residents to have them on their own properties. City subsidies are available for residents in this part of the city. We have ongoing plans for building a new community garden as well as a pollinator garden that has been delayed but should be happening in the spring of 2024. We have also been approached to take the lead on tree planting in the area of the Mer Bleue bog this fall which is to be confirmed.”

Dalhousie Community Association (DCA):

Recognizing the importance of protecting existing greenspace for climate resiliency, and the fact that Dalhousie’s neighbourhood has the smallest tree canopy in the city, the Dalhousie Community Association is opposing the removal of Plouffe park.

Champlain Park Community Association (CPCA) ongoing projects:

“Champlain Park has a very engaged Environment Committee. During the past several years, the CPCA has had regular contracts with the City and the NCC to reclaim degraded land along the Ottawa River. The Environment Committee and volunteers have planted native trees and shrubs in the local NCC “forest”. They have created a butterfly garden, a Miyawaki Forest, a Carolinian Forest and a native food “forest”. Recently, they published an article on their efforts:

<https://champlainpark.org/ticp/ticp-resources/#ticptop> (click title: Community Stewardship and Biodiversity Enhancement of Public Greenspaces)

Fisher Heights (not part of the CRDs):

An environmental group is just launching in Fisher Heights and aims to encourage residents to move away from lawns to "re-wilding" with pollinator-friendly drought-tolerant tree filled gardens. They are creating a pollinator garden. They also plan to share educational information on invasive species. They plan to use their newsletter to share information.

Individual commitments:

Several individuals shared their personal plans to help build climate resiliency. One individual shared that they are shifting some money to donate to local environmental organizations and investigative newspapers that report on environment and climate related news. They also will be engaging their landlord in conversation to ask them about what plans are in place for extreme weather events and power outages, e.g. if the building has a generator, what that generator powers. Multiple other people shared that they plan to lead/support the creation of a plan where "neighbourhood leaders" are identified, who in turn organize a needs assessment of the street/neighbourhood, and figure out who has what supplies, skills and what people's needs are to bolster disaster preparedness.

One individual shared that they plan to engage with their City councillor to inquire about whether they plan to share information on climate change and climate resiliency.

Another person is working avidly to promote the creation of microgrids and is in contact with developers, the city and the energy transition committee for Ontario.

Finally, one participant who has a boulevard pollinator garden intends to promote their garden to encourage others in the neighbourhood to plant on the right of way as well.

5.4.2 Possible Next Steps: CAFES

CAFES sees many potential avenues for action following the successful community dialogues; specific next steps for projects and initiatives depend on interests of members, partners and funders. As climate action is a part of the core mandate of CAFES this is a natural fit. Other Ottawa-based organizations like Ecology Ottawa, the Federation of Citizens Associations (FCA),



Peoples Official Plan coalition (POP), City for All Women (CAWI), tenant's rights advocacy organization ACORN and others may be interested in supporting or partnering in these activities as well.

Besides Carleton University and the University of Ottawa locally in Ottawa, there are other sources of significant technical knowledge such as the Institute on Catastrophic Loss Reduction (ICLR) and the Insurance Bureau of Canada (IBC) that are pleased to partner and find application of their knowledge and resources at local level.

Information sessions

CAFES can organize a series of information sessions on various *practical and technical aspects of climate resiliency and preparedness*. CAFES would select topics that are complex enough to be well suited for full information sessions and partner with subject matter experts, industry leaders and standard-setting knowledge providers such as the Institute for Catastrophic Loss Reduction and the Insurance Bureau of Canada. In this way, CAFES would help make these issues relevant to communities, and connect communities with experts to resolve the issue of “not knowing what they don’t know”. Examples of topics include:

- Insurance: Questions to ask your insurance provider, how to find out what you are insured for at all levels of government, what renter insurance covers.
- Household emergency preparedness: Different options for backup power; how to create a personal emergency preparedness kit and go bag.
- Energy resilience: How can we build a renewable and resilient energy grid? What are the current gaps? What are the levers of change? What needs to happen at the municipal, provincial, federal level to enable the creation of community-level renewable energy grids? What can I do to advocate for the changes necessary?
- Flooding and rainfall: What do homeowners need to know to prepare for flooding based on where they live? For example, how to figure out if you need a backwater valve. What is a soak pit? How to build a rain garden or tree trench?
- Partnering on an information session with West Carleton Disaster Relief so community associations can learn from their experience and expertise.

CAFES can also consider hosting *information sessions by climate hazard* in order to try and reach a wide audience and raise awareness. For instance, rather than hosting an information session just on backwater valves, CAFES could organize a session on preparing for rainfall and flooding and share information on preparedness for homeowners and renters alike.

Further, CAFES could consider hosting some information sessions on household preparedness tailored at families, recognizing the fact that often parents are concerned about climate impacts affecting their children, and often children motivate their parents to act on climate change.

More public engagement workshops

Since CAFES had good success organizing the Climate Resiliency Dialogues, CAFES can organize another workshop once the draft Climate Resiliency Strategy (CRS) has been released to offer engagement opportunities for residents. The format could be similar in that information could be shared at the start of the workshop (context, an overview of the CRS), then the workshop could offer a discussion and break-out period for attendees to share their thoughts on the CRS.

CAFES could partner with other organizations to target engagement workshops to specific groups such as new arrivals, tenants, seniors, youth or low-income residents.

Supporting community initiatives

CAFES' mandate is to support community environmental initiatives. CAFES could support community initiatives that build resilience and climate preparedness. For example, this could include supporting several communities in

- Creating community climate emergency/ preparedness plans
- Supporting communities in specific climate resiliency projects based on their location and the main climate risks e.g. a high flood risk area
- Supporting resiliency initiatives in multi-unit residential buildings (MURBs) with tenants or condo associations

CAFES could also act as a liaison between the City and communities, and share information on climate impacts and preparedness as well as help connect communities to resources from the City to support their projects.

Trees & greenspace

CAFES has an active trees & greenspace file, and is already working on initiatives that relate to climate resilience. In addition to helping to promote the Trees in Trust front-yard/right of way tree planting program, we are exploring back-yard tree planting program options and supporting community associations in tree & greenspace initiatives and mapping community plantable spaces.

There is also particular interest in better connecting tree planting and storm water absorption issues in the context of the City developing its Infrastructure Master Plan, as well as mapping and tracking data on tree canopy and forest cover and losses.

Risk Disclosure

Both the real estate and insurance sectors are interested in consistent approaches to climate risk disclosure. CAFES can support piloting of disclosure tools like climate risk mapping or

residential real estate climate risks. CAFES understands that disclosure needs to be universal (common language, used by all supply chain actors) in order to eliminate moral hazard and predatory behaviour.

Advocating for strengthened climate resiliency at City Committees and Council

Recognizing the connections between City planning and regulations, with climate resiliency, CAFES can strengthen its advocacy at the municipal level on climate resiliency and adaptation. This could help socialize knowledge about current municipal decision making, and get more community members civically engaged. CAFES already tracks decisions made by City Council that relate to climate and the environment, and regularly makes public delegations to advocate for policies, plans and regulations that address climate change and support a healthy environment. For example,

- CAFES can advocate for investment to bolster critical infrastructure in the face of climate impacts around the City's budget consultations.
- CAFES can create communications materials about the importance of various City decisions for climate resilience to share with our network. These materials can encourage our supporters to advocate for decision making that supports climate resilience to their City Councillors or through public delegations.
- CAFES can write briefings on the importance of specific City Council decisions for climate resilience to support public delegations. This could help CAFES members to feel more at ease delegating to City council on issues they care about.

5.4.3 Next Steps: City of Ottawa

The Municipal Climate Resiliency Strategy

The reports from the individual dialogues, as well as this final report will be provided to the City's Climate Change and Resiliency Unit as input for the City's Climate Resiliency Strategy (CRS). The CRS will identify a series of actions to minimize Ottawa's vulnerability to climate change and strengthen Ottawa's ability to recover from climatic events. A draft of the Climate Resiliency Strategy is expected to be available at the end of 2023 and city staff expect consultations on the Strategy in early 2024. Residents can also provide more input for the strategy through the City's [Engage page](#).

Public Engagement and Consultation

There are many opportunities for the City in deepening its public engagement in climate resilience work based on the conversations from the community dialogues. For example, there is interest in the City providing more detailed frameworks to communities for climate resiliency planning, along with resources and support. This can be a logical step to build community resilience to climate impacts. Based on the expressed interest in future information sessions

and events, we see funding community level educational workshops or training sessions as being a useful step. Further, we think that tapping into Ottawans to act as volunteers to share information on climate impacts, risks and resilience would be an effective way to communicate with communities. Finally, providing specific information and communications materials to different communities and targeted groups is another way to get community buy-in and interest in climate resilience, as localized and targeted information would be most useful and will demonstrate to communities that the city is considering their specific situation.

Based on the concern that we heard throughout the dialogue sessions that community associations lack capacity and resources to undertake climate resiliency projects, the City could consider creating financial supports for these projects. The City could follow the lead of Nova Scotia's recently announced [Community Climate Capacity Support Program](#).

There are other models that the City could follow. The City of Edmonton's [Neighbouring for Climate](#) program that creates a guide for neighbourhoods to take climate resiliency actions. Another possibility would be to try and partner with a university to create a climate resiliency course modelled after [UBC's Climate Action and Community Engagement Course](#) (CACE).

5.5 Conclusion

In closing, the Climate Resiliency Community Dialogues was a first project of its kind supported by the City of Ottawa's Climate Change and Resiliency Unit and co-hosted between CAFES and local community partners. The dialogues fostered discussions about local climate concerns and possible solutions at the individual, community and city level. We hope that the ideas brought forward by residents through the Climate Resiliency Community Dialogues will be useful as the seeds for actions at the individual, community and city level. CAFES fully intends to continue to support and create spaces for community leaders to come together and continue the dialogue.