
City of Burlington

Climate Resilient Burlington Engagement Report



MARCH 2022

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TABLE OF CONTENTS

SECTION	PAGE NO.
Table of Contents	i
1 Introduction	1
2 Engagement Approach	1
3 Engagement Details	3
3.1 City Project Team	3
3.2 City and Community Stakeholder Groups	4
3.3 Public Input	7
4 Workshop Survey Results and Feedback	8
5 Closure	12
Appendix A – City and Community Stakeholder Lists and Attendance	

1 INTRODUCTION

The objective of the Climate Resilient Burlington (CRB) project is to develop a climate adaptation plan for the City of Burlington (the City) to meet the requirements of the Global Covenant of Mayors Canada (GCoM) in keeping with Milestones 1, 2, and 3 of the ICLEI/BARC methodology. The CRB plan outlines actions to be taken by the City over the next 10 years (2022-2032). The goal is to build community resilience to reduce the risks inherent in climate change and take advantage of opportunities while building upon existing adaptive actions. The CRB plan also provides a foundation to build community awareness of the impacts of climate change and what actions will be required to prepare.

The CRB has been informed by City staff and community stakeholders to develop a community-wide plan, outlining the actions to be taken by the City. Stakeholders provided input throughout the process to:

- Prioritize the highest climate-related vulnerabilities and risks for the City and community (extending beyond the City’s assets and services);
- Align initiatives to coordinate resources;
- Identify opportunities to address multiple risks from individual initiatives;
- Elevate initiatives to provide multiple benefits; and,
- Collaborate across departments, stakeholders, and jurisdictions.

Over the course of the project, 15 workshops were facilitated, which hosted 49 City and community stakeholders. The City stakeholders represented 12 City departments. Together, City and community stakeholders spent 660 hours attending and participating in workshops. 2,650 comments were collected in the virtual platform MURAL, and 690 items were scored and/or voted on by workshop attendees. Community members were also engaged through a public event and surveys. 150 public comments were received in regard to the CRB’s Vision and Principles.

Quotes from stakeholder feedback have been included in call out boxes through this report.



2 ENGAGEMENT APPROACH

The intent of a community-wide engagement approach is to understand the impacts not just to City infrastructure and services, but also to citizen and ecosystem well-being as well as infrastructure and services of community and regional stakeholders. Although the impacts of climate change are widespread across multiple stakeholders, the CRB only outlines actions to be taken by the City. Some topics may be led by or rely on collaboration with other community stakeholders, but the action in CRB is only specific to the City’s role in that topic.

Table 2-1 provides an overview of the stakeholder groups, level of engagement, strategy, and engagement outcomes.

“Lots of stakeholders and lots of ideas. [The project] looked at the whole picture.”

**Table 2-1
Engagement Approach Overview**

Stakeholder Category	Interest Level	Engagement Level	Method/Strategy	Outcomes
City Project Team	Level 1 - Highest <ul style="list-style-type: none"> Owner/ accountable for final project report Responsible to present and defend results to Council, public and stakeholders 	Collaborate	Interim presentations or meetings after key project tasks to: <ul style="list-style-type: none"> Review stakeholder input. Make decisions prior to moving to next task (as necessary). 	<ul style="list-style-type: none"> Increased efficiency and less iteration of the overall project deliverables. Client confidence in defending project results.
City Staff Stakeholder Group	Level 2 - High <ul style="list-style-type: none"> Project results have a direct impact to their work 	Input	Virtual and interactive workshops via MURAL and MS Teams: <ul style="list-style-type: none"> Separate City and community stakeholder groups for vulnerability workshops; account for different types and severity of impacts. Joint workshops with all stakeholders to assess consequences and develop actions: identify alignment, partnerships, and opportunities. 	<ul style="list-style-type: none"> Increase stakeholder's understanding of their risks from climate change. Increase stakeholder's understanding of their role in taking action on climate adaptation. Incorporate risks and actions from multiple stakeholders in CRB. Include opportunities for alignment and partnerships across stakeholders in CRB.
Community Stakeholder Group	Level 2 - High <ul style="list-style-type: none"> Project results have a direct or indirect impact to their work 	Input		
General Public	Level 3 - Lower <ul style="list-style-type: none"> Project results may inform their personal decision making and investments 	Input	Public engagement portal: <ul style="list-style-type: none"> Review and provide input on the vision and goals of CRB developed by staff and community stakeholders. 	<ul style="list-style-type: none"> Vision and goals are reflective of and understood by general public.
		Inform	Public engagement portal: <ul style="list-style-type: none"> Provide the CRB. 	<ul style="list-style-type: none"> Public is informed and aware of the highest risks of climate change to Burlington and priority climate adaptation actions.

3 ENGAGEMENT DETAILS

A bottom-up, participatory approach was implemented, which allowed for the skills and experiences of key stakeholders to be used in the co-production of the climate adaptation plan and the vulnerability and risk assessment process. This approach builds momentum for successful adaptation planning and implementation by including all key stakeholders in all stages of the development process.

This section provides additional details for how each stakeholder category/group in [Table 2-1](#) was specifically engaged.

Throughout the project, **Fleur Storace-Hogan** (the City’s Project Manager) acted as the single point of contact for all stakeholders and the City project team. Twyla Kowalczyk acted as the single point of contact and Project Manager on behalf of Associated Engineering (Associated) and All One Sky Foundation (AOSF). Regular and frequent communication occurred between Fleur and Twyla, including bi-weekly progress meetings to discuss the engagement approach and outcomes.

“Fleur was great at communication, sending prompts and reminders.”

3.1 City Project Team

The City Project Team consisted of the following individuals:

- Fleur Storace-Hogan, Sustainability Project Coordinator;
- Lynn Robichaud, Manager of Environmental Sustainability; and
- Allan Magi, Executive Director of Environment, Infrastructure and Community Services (EICS).

This team was engaged from the onset of the project and played a significant role during the vulnerability and risk assessment portion. Risk assessment results were presented to this smaller group to ensure buy-in before moving to the development of actions. Because of their professional roles, this group provided valuable feedback from an implementation practicality standpoint with a uniquely City of Burlington context. This allowed for focused discussions and confidence in decision-making.

The Sustainability Project Coordinator also played an important role in following-up with city staff and community stakeholders in between workshops to obtain additional input or clarity on input already provided, consolidating and/or prioritizing stakeholder feedback on various documents, planning the October 27, 2021 virtual project launch event and developing content for the public engagement portal *Get Involved Burlington*.

3.2 City and Community Stakeholder Groups

As noted in **Table 2-1**, virtual workshops were held to engage both the City Staff Stakeholder Group and the Community Stakeholder Group. There was a total of **15 workshops**, which were each 2 to 2.5 hours in length. Shorter durations were used to better integrate within stakeholders' work schedules and to sustain active participation in a virtual format. **Table 3-1** summarizes the topic of each workshop.

Appendix A includes the names of stakeholders and their attendance for each workshop. Not all stakeholders were able to attend all workshops. Attendees represented **12 City departments** and **15 community groups**.

By being diverse and inclusive in workshop invitations, CRB was successfully informed by a wide variety of perspectives. The large span in departments and organizations also increases the breadth of knowledge and capacity to support implementation of the actions as participants return to their respective departments and drive actions in their groups. It will be the responsibility of all departments across the City to implement the actions.

COVID-19 public health restrictions have forced widespread adoption of virtual platforms for collaboration and engagement. The following virtual platforms were utilized throughout the workshops:

- **MURAL:** Associated uses MURAL (<https://www.mural.co/>) with various clients for facilitating workshops, meetings, and using a more visual and dynamic online whiteboard to drive collaboration.
- **Microsoft (MS) Teams:** Workshops were conducted using Teams to utilize video features, sidebar chat features, and sharing of files during a workshop/meeting.

Because the workshops kept building on one another, MURAL allowed all important details to be retained from one session to the next.

A record of input provided through MURAL will be provided to the City in the form of pdfs to be easily searched and referenced in the future. **Figure 3-1** shows snippets from some of the workshops' MURAL boards. Overall, **2650 stakeholder comments** from **49 stakeholders** were captured within MURAL.

“Breaking it down into many smaller workshops made sense to reduce screen fatigue and potential distractions.”

“It's great to get varied points of view, make connections across City and stakeholder workplans.”

“Loved that it was done on MURAL and broken up into manageable sections and we could work on it synchronistically.”

“I liked the MURAL tool. It made it easy for people to work cooperatively and simultaneously.”

“MURAL was great. [It was] nice to provide input at my own pace on items of interest.”

“Great use of the MURAL tool. I liked the way topics were discussed.”

“Having the shared MURAL worksheets was helpful to keep track of everything. Being able to leave comments and also read the comments of others helped a lot.”

“I liked that MURAL was used to help facilitate the sessions and that both City staff and external stakeholders were consulted with.”

“The online commentary was helpful from other stakeholders, which might have been missed if in smaller tables at in person sessions. MURAL was a great tool.”

**Table 3-1
Stakeholder Engagement Workshop Summary**

Name	Workshop	Description
Vulnerability and Risk Assessment	1A	Review draft impact statements and define climate drivers and thresholds for assessment.
	1B	Using the pre-defined scales, separately assess the City's sensitivity and coping capacity to each impact statement.
	2A	Introduce the risk assessment process and assess consequences of the impact statements.
	2B	Continue the assessment of consequences of the remaining impact statements.
Adaptation Strategic Direction	3A	Develop a vision statement and principles to guide the adaptation plan.
	3B	Develop a series of themes to group and focus actions. Determine goals and potential indicators for each theme.
Action Identification	4A	Infrastructure: action identification and alignment to existing initiatives.
	4B	Natural Environment: action identification and alignment to existing initiatives.
	4C	Energy and Water Supply: action identification and alignment to existing initiatives.
	4D	Community Services and Public Health: action identification and alignment to existing initiatives.
	4E	Operations and Maintenance: action identification and alignment to existing initiatives.
	4F	Business and Economy: action identification and alignment to existing initiatives.
Action Implementation	5A	Action prioritization using a multi-criteria framework (cost-benefit).
	5B	Further defining the priority actions including roles and responsibilities and order of magnitude cost estimates.
	5C	Develop implementation sequencing and timeframes for priority actions and develop monitoring and reporting requirements.

Group 1: Water

1.1 Drought

1.2 Urban flooding

1.3 Creek flooding

Group 2: Extreme Weather

2.1 Wildfire

2.2 Freezing rain

2.3 High winds

Group 3: Health & Well-being

3.1 Vector-borne diseases

3.2 Air quality

3.3 Extreme heat

During Workshops 1A (see above snippet), participants reviewed the draft hazards (e.g., drought, urban flooding) and their associated impacts. Each hazard also included climate driver(s), a definition/threshold, and data source, and were categorized into five groups: water, extreme weather, health and well-being, environment, and buildings and infrastructure. After review, participants added sticky notes to respond to the prompts, “Comments on the proposed impact definition/threshold?” and “Who or what in Burlington would be MOST affected?” The feedback provided during this workshop shaped the finalized list of impact statements, which is a combination of multiple impacts for each hazard or opportunity.

Group 2: Extreme Weather

Cell C to copy, Cell V to paste
Alt-click and drag to duplicate

2.1 Grass fire

Definition / threshold An uncontrolled grass, brush or scrub fire within City limits, of more than 1 acre in size

Vulnerability Sensitivity [2.33/5] = Med Lack of Coping Capacity [2.05/5] = Med Vulnerability [2.19/5] = Med

Probability [5] Annual probability > 50% in the 2060s

Consequences	Voting	VERY LOW [1]	LOW [2]	MEDIUM [3]	HIGH [4]	VERY HIGH [5]	Comments [why?]
Transportation delays and disruptions due to smoke and reduced visibility, disrupting economic activity	☆☆☆☆☆☆	☆☆☆☆	☆☆☆☆		☆		Transportation delays and disruptions due to smoke and reduced visibility, disrupting economic activity
Damage to terrestrial habitat, resulting in impairment or loss of ecosystem services, including increasing carbon emissions	☆☆☆☆☆☆		☆☆☆☆		☆		Damage to terrestrial habitat, resulting in impairment or loss of ecosystem services, including increasing carbon emissions

During Workshops 2A and 2B (see snippet to left), participants helped to assess the consequences of the impact statements. Using grass fire as an example hazard, participants voted (by moving stars) on whether they believed “transportation delays and disruptions due to smoke and reduced visibility, disrupting economic activity” was a very low, low, medium, high, or very high impact consequence. They were then asked to provide comments (via sticky notes) as to the rationale of their voting. The feedback provided during these workshops determined the vulnerability, consequence and risk scoring of each impact.

Figure 3-1
Snippet Examples from Workshop MURAL Board

Other approaches for stakeholder workshops included:

- **Prior to workshops:** Provided material to review ahead of time, where appropriate, to focus workshops on collecting stakeholder input and insight and less on providing background information or progress updates.
- **Workshop expectations:** Worked with stakeholders to agree upon a set of rules and/or expectations to support the success of the engagement process. This included requesting that stakeholders arrange an alternate person to attend any workshops that they can not attend themselves.
- **Workshop outcomes:** Provided clear outcomes and agendas for each workshop.
- **Interactive and engaging format:** Designed workshops to support all stakeholders in providing input. This included brainstorming activities (e.g., post-it notes, mind mapping), prioritizing (e.g., voting, grouping, ranking) and supporting different methods to provide input (e.g., large and small group discussions, using the chat feature in Teams for stakeholders that prefer not to speak in front of the entire group).
- **After the workshops:** Allowed stakeholders an opportunity to add additional comments to the MURAL for a limited period of time after the workshop in case they needed time to reflect on the material or did not have an opportunity to share their perspective in the workshop.

“It was extremely collaborative and democratic. It was easy to bring new issues to the table and everyone was open to giving or receiving feedback regardless of the topic.”

“The use of the boards was great - to have everything summarized in one location that was accessible by all. I also liked how every step in the process was laid out and could be referenced whenever needed.”

Workshop meeting invitations were set up by Associated. However, the City’s Project Manager coordinated all email communications and follow-up discussions with stakeholders.

3.3 Public Input

Members of the public were engaged in a variety of ways, as described below. The City’s Project Manager coordinated with *Get Involved Burlington* for public engagement components.

Public Launch and Engagement Event. The City’s Project Manager coordinated a public “launch” of the CRB plan in which a high-level introduction to the project was provided. This virtual event was held on the evening of October 27, 2021, and featured keynote speaker David Phillips, Senior Climatologist at Environment and Climate Change Canada. The event was open to the public, and there were **65 attendees**, excluding the guest speaker and organizers. In “Weather and Climate: It’s Not What Our Grandparents Knew,” David highlighted what is happening to our weather, what should we be worried about, and what we can do to make a difference and be better prepared. There were four polls during the event. Results to three of the four questions are included in **Figure 4-1**, where we compare the public’s climate action knowledge and motivation against those of City and community stakeholders. Associated provided the recorded video of the event to the City, and the City coordinated captioning. The [launch event](#) is available at burlington.ca/environment. Further information is available from EICS upon request.

CRB Vision and Principles. The City’s Project Manager coordinated content for the engagement portal *Get Involved Burlington* including providing the Vision and Principles from the stakeholder workshops for public comment/input. **150 public comments** were received. The City’s Project Manager also consolidated the public input and discussed with Associated potential alterations to the CRB’s Vision and Principles.

Between the draft and final versions, the Vision was changed from future tense to present tense. “Low carbon” wording was changed to “net zero carbon”. And “climate resilient community where people, nature and business will thrive” was replaced with “is prepared for warmer, wetter and wilder weather.”

Draft Vision statement: *Through collective action, Burlington will become a low carbon and climate resilient community where people, nature and business will thrive.*

Final Vision statement: *Through collective action, Burlington is a net zero carbon community and is prepared for warmer, wetter and wilder weather.*

The Principles remained relatively the same between their draft and final forms, with some small wording adjustments. Additional information on the public’s input can be obtained from the EICS department upon request.

CRB Report. A draft of the CRB report will be brought to the City’s Environment, Infrastructure and Community Services (EICS) Committee of Council in May 2022. It will be shared publicly (via *Get Involved Burlington*) and open to public comment and feedback starting about two weeks prior to that meeting. The final CRB will be brought to EICS Committee of Council and City Council in July 2022 with feedback incorporated where appropriate.

4 WORKSHOP SURVEY RESULTS AND FEEDBACK

To gauge the level of confidence and motivation with respect to climate action before and after the City and community workshops, three questions were asked to participants:

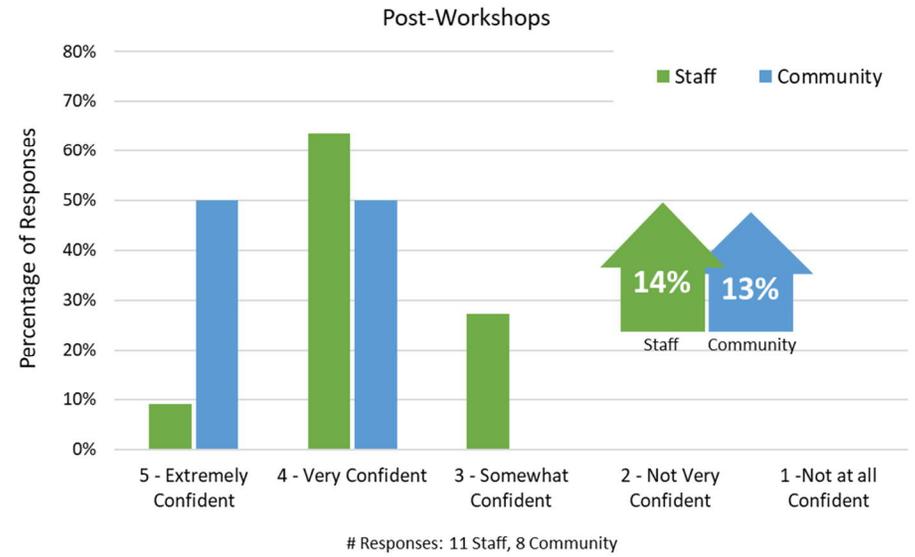
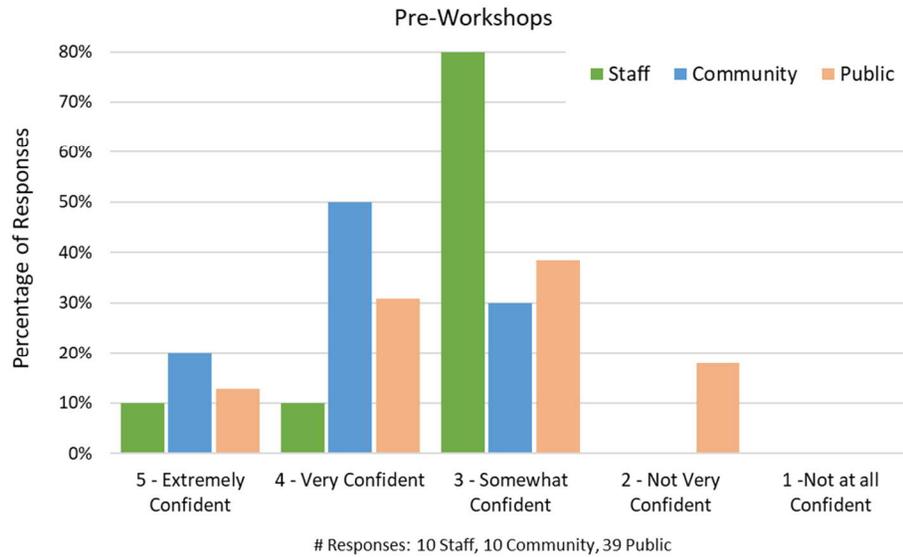
- How confident do you feel that you understand **how climate change will impact** your area of work?
- How confident do you feel that you understand **what you need to do** for a changing climate?
- How **motivated are you** to help drive climate action in your organization?

By asking these questions at the start and end of the process, we are confirming the level of success in achieving our goal of the bottom-up approach: to help build momentum and knowledge, capacity, and understanding across stakeholders. These questions were also asked during the Public Launch and Engagement Event and slightly altered to incorporate participant’s personal life in addition to their area of work/organization. **Figure 4-1** provides the survey results and are summarised as follows:

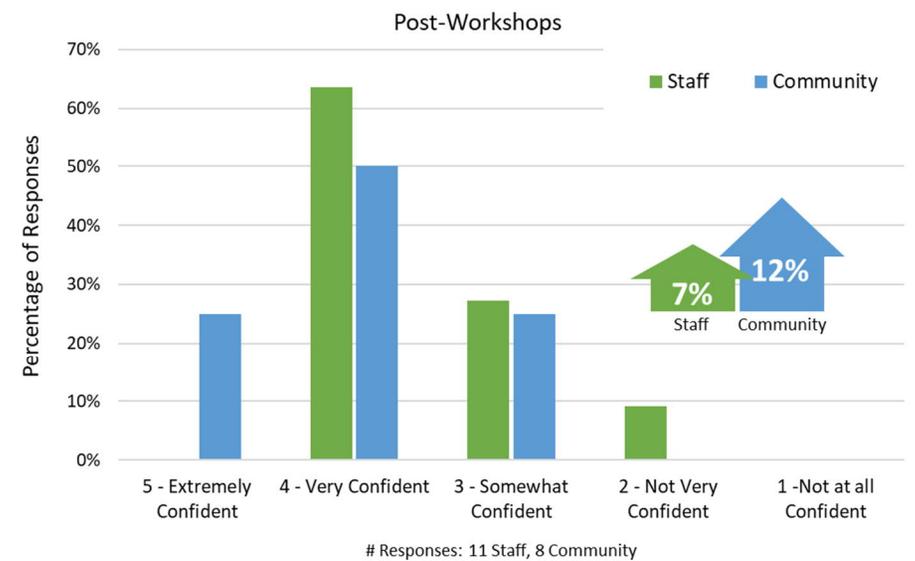
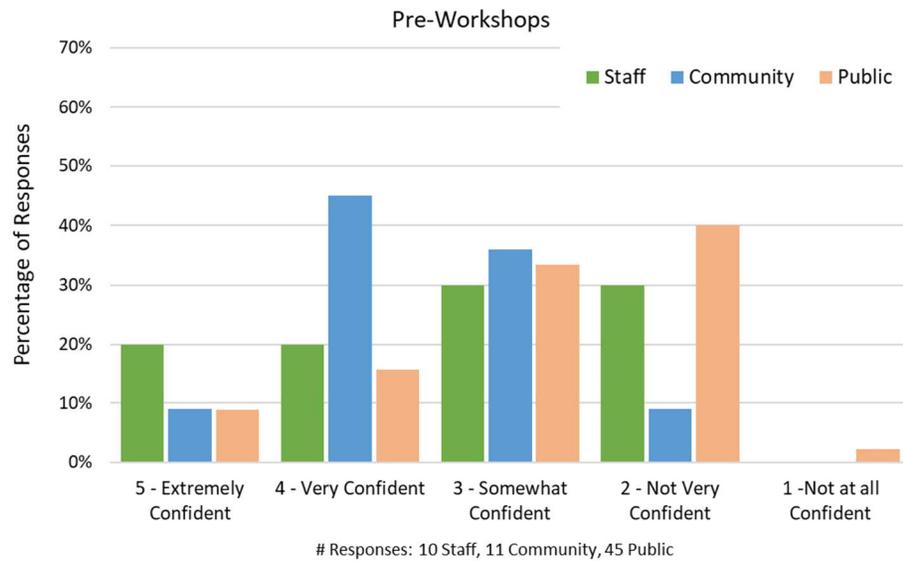
- Understanding climate change impacts: **increased** by **14%** for staff and **13%** for community;
- Understanding climate adaptation actions: **increased** by **7%** for staff and **12%** for community; and
- Motivation to help drive climate action: **decreased** by **22%** for staff and **increased** by **4%** for staff.

Additional discussion with City staff stakeholders could help to understand the decrease in motivation but it is assumed that this could be due to the magnitude of the actions that need to do as part of this plan or “workshop fatigue” having contributed throughout this project. More work needs to be done by the City to assess the resources required as the City moves into implementation of the CRB plan.

"How Confident Do You Feel That You Understand How Climate Change Will Impact Your [Personal Life or] Area Of Work?"



"How Confident Do You Feel That You Understand What You Need To Do To Prepare For A Changing Climate?"



"How Motivated Are You To Help Drive Climate Action In Your [Personal Life Or Within Your] Organization?"

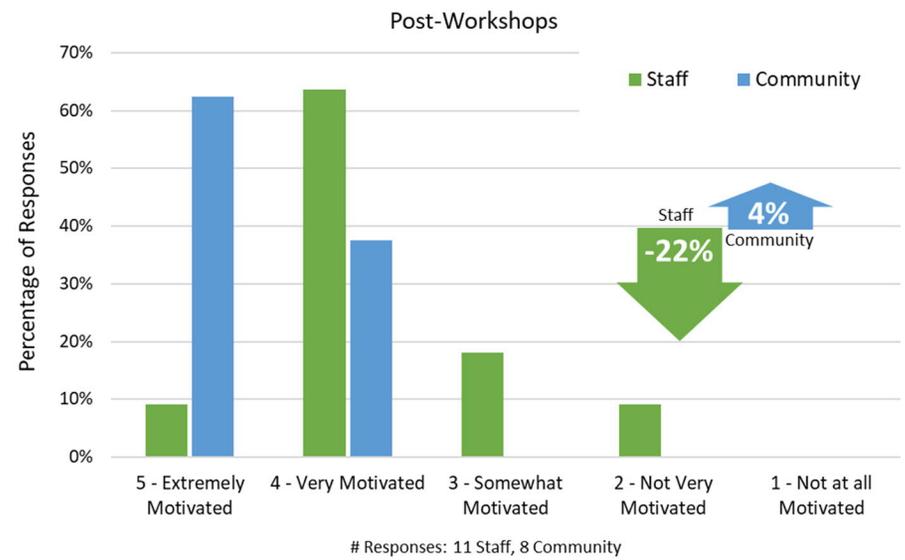
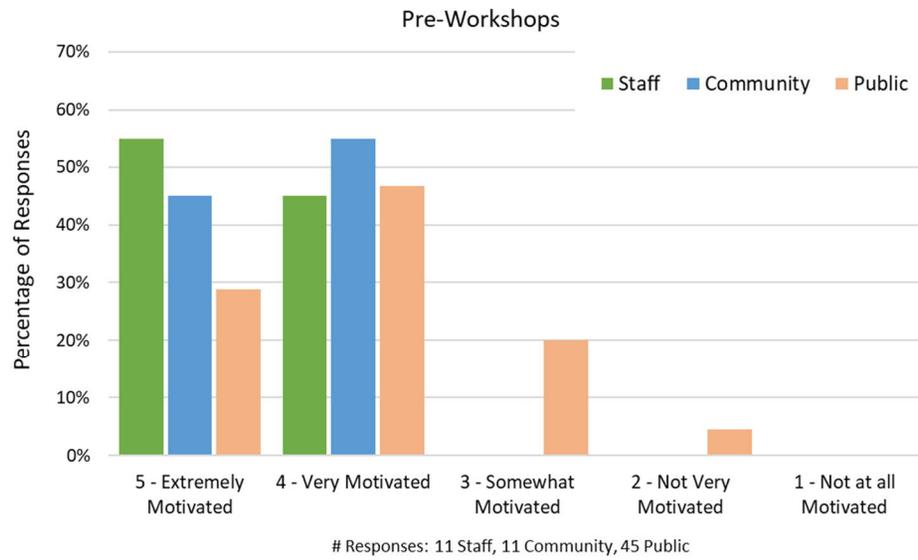


Figure 4-1
Workshop Survey Results

After all workshops, the project team also asked City and community stakeholders to provide feedback on the overall engagement and CRB plan process. Generally, the feedback was very positive. There are quotes throughout this document with praise for the project, process(es) used, and people involved.

“Great job!”		
<i>“Overall I thought the process and approach worked well.”</i>	<i>“Really appreciate the team that coordinated all of this. The patience, understanding, and adaptability of the team was greatly appreciated and kept things trucking along.”</i>	<i>“Good communications and inclusivity.”</i>
-		-
<i>“Thanks for all of the hard work!”</i>		<i>“Thanks for including us in this process.”</i>

Some opportunities for improvement include:

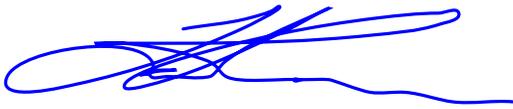
- Have less workshops or find a means to effectively update people that were not able to be constantly involved.
- Record workshops and distribute the recordings to people that could not attend. Recordings could also be used for future reference.
- Provide more detail on the workshop’s topics to ensure that the appropriate parties can prioritize which ones they attend.
- Provide a better contextual description of what each department’s limitations are.
- Distribute the workshop material ahead of time.
- Spread out the process over a longer time period.

<i>“There were so many online workshops that it was difficult to make time for all of them.”</i>
-
<i>“When you could attend a meeting, you did feel lost a bit. Maybe having the meeting videoed could have helped.”</i>
-
<i>“Some of the sessions were very focused on particular areas that some of the participants couldn't effectively participate in.”</i>
-
<i>“Receiving the material ahead of time would have helped at times to digest some of the material.”</i>
-
<i>“The process could have been more spread out. [...] I could not spend the time on it as I wanted too and was not able to make it to all the workshops.”</i>
-
<i>“Sometimes it felt complex and challenging to follow if you weren't consistently involved. It was a significant time commitment [...], but having the MURAL worksheets was helpful to keep track of everything.”</i>

5 CLOSURE

This engagement report was prepared for the City of Burlington to summarize the approach and outcomes of engaging City and community stakeholders and collecting input, including through the facilitation of workshops, to inform the City’s climate adaptation plan: Climate Resilient Burlington.

Respectfully submitted,
Associated Engineering (Ont.) Ltd.



Twyla Kowalczyk, M.Sc., P.Eng.
Project Manager

TK/da

APPENDIX A – CITY AND COMMUNITY STAKEHOLDER LISTS AND ATTENDANCE

Staff Stakeholder List & Workshop Attendance

Name	Department	Workshop #														
		1A	1B	2A	2B	3A	3B	4A	4B	4C	4D	4E	4F	5A	5B	5C
Jackie Murphy	Building and Bylaw	•	•		•	•	•	•	•	•	•	•				•
Jeff Crowder	City Manager's Office			•	•	•		•		•		•	•	•		•
Alison Enns	Community Planning	•				•				•	•		•	•		•
Laura Ross	Community Planning		•	•	•										•	
John Stuart	Community Planning															•
Chitra Gowda	Conservation Halton, Planning and Watershed Management (external agency)	•	•	•	•	•	•	•	•		•			•		
Kim Barrett	Conservation Halton, Planning and Watershed Management (external agency)	•	•	•	•		•	•	•				•	•		•
Cecilia Essien	Corporate Legal Services	•														
Ingrid Vanderbrug	Engineering Services	•	•	•	•	•	•		•					•		•
Amy Daca	Engineering Services	•	•	•	•	•	•	•	•				•	•	•	•
Umar Malik	Engineering Services	•	•	•	•	•		•			•					•
Emily Linschoten	Engineering Services						•		•	•	•	•		•		
Ken Pirhonen	Environment, Infrastructure and Community Services (EICS)		•					•								
Paul Swioklo	EICS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Fleur Storace-Hogan **	EICS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Lynn Robichaud	EICS	•	•		•	•	•	•	•	•	•	•	•	•	•	•
Ellen Chen	Finance	•	•					•						•		•
Amber Rushton	Fire				•		•	•	•							
Samantha Thompson	Halton Region, CAO's office (external agency)	•	•	•	•	•	•	•			•					
Lisa Kohler	Halton Region, CAO's office (external agency)															•
Matt Girodat	Human Resources		•	•	•	•	•		•	•	•		•	•	•	•
Denise Beard	Recreation, Community and Culture		•	•	•			•	•		•		•			•
Matt Koevoets	Roads, Parks and Forestry (RPF)			•		•	•									•
Steve Robinson	RPF	•	•		•			•	•	•	•				•	
Kyle McLoughlin	RPF			•												
Nadia Blackburn	RPF	•										•				
Kaylan Edgcumbe	Transportation	•														
Nicholas Pongetti	Transportation		•	•	•	•	•					•		•		
Steve Vrakela	Transportation											•				

** Project Manager for the Climate Resilient Burlington project.

Halton Region used a one-window approach where one member from the CAO's office attended workshops, consulted with staff from different departments, and submitted comments on behalf of the Region.

