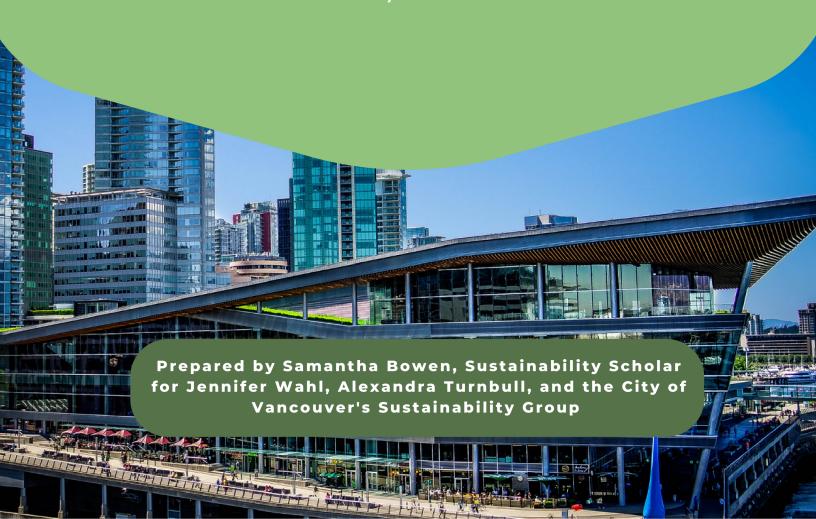
FOR COMMUNITY MOBILIZATION TOWARDS MEANINGFUL CLIMATE ACTION

July 2022



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This project was conducted under the mentorship of City staff.
The opinions and recommendations in this report, and any errors,
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Land Acknowledgement

This report was written on the ancestral and unceded territories of the xwməθkwəýəm (Musqueam), Skwxwú7mesh (Squamish) and səliİilwətaʔł (Tsleil-Waututh) First Nations and was authored by an uninvited guest and settler living on these unceded lands. The author would like to acknowledge that the University of British Columbia (Point Grey campus) is located on the unceded, traditional, ancestral, and stolen territories of the xwməθkwəýəm (Musqueam) First Nation and the City of Vancouver municipal offices are located on the unceded, traditional, ancestral, and stolen territories of the xwməθkwəýəm (Musqueam), Skwxwú7mesh (Squamish) and səliİilwətaʔł (Tsleil-Waututh) First Nations.

Executive Summary

When it comes to community mobilization around climate action, the eight cities interviewed for this project—Toronto, Ontario; Portland, Oregon; Edmonton, Alberta; Richmond Hill, Ontario; New York City, New York; Denmark; Oslo, Norway; Copenhagen, Melbourne, continuously reworking their approaches to public outreach and climate change education in light of the COVID-19 pandemic, and the consequences of climate change, including local extreme weather events. As many municipalities indicated, extreme weather events resulted in a consequent increase in concern about climate change among residents, particularly youth. Within the last few years, some of the interviewed municipalities have been restructured to unite climate change adaptation and mitigation work, while some continue to work on them separately; nevertheless, most municipalities employ similar approaches to reach their residents.

While most, if not all, outreach efforts were online over the course of 2020 and 2021 due to restrictions arising from the COVID-19 pandemic, most municipalities have embraced the benefits of digital outreach and are implementing various hybrid strategies that incorporate both in-person and online elements to reach more residents. Such outreach largely focused on raising awareness about the localized effects of climate change and educating residents on contextualized ways they can take meaningful climate action. While not the focus of outreach, concurrent efforts were also made by multiple municipalities to use these points of connection to clarify municipal actions and powers. As seen in the City of Vancouver, other municipalities also encouraged residents, non-profits, business owners, and organizations to provide input on climate policy and program design, share their voice at Council hearings and participate in various City-led initiatives. Ultimately, a city's role is to lead, educate, enable, and participate.

As a result, focus is often placed on increasing literacy and awareness through local partnerships and public participation in outreach activities (in-person and online). For example, retrofitting grants are often widely promoted to homeowners, business owners, and building managers through social media, newsletters, and advertisements. Grants for, and partnerships with, local environmental justice organizations and non-profits have also been central to each municipality's formal and informal networks, expanding the municipality's reach. Similarly, reaching out to school-age children has been a focus for some municipalities and has led to the incorporation of localized climate literacy education into school curricula. These active efforts to increase climate literacy and action are complemented by various, city-specific materials.

In terms of materials typically offered by municipalities, all of those interviewed have websites that function as a 'hub' with relevant climate action-related knowledge that, depending on the city, includes City-led programs and initiatives for the community, a portal to municipal climate action, or a combination of the two. Where they differ most is in the other climate literacy materials drafted—these tend to vary depending on the project and the city's context. Some have interactive ways for residents to indicate the climate actions they are taking, conversation toolkits, or digitized maps that highlight sustainable places in each neighbourhood. The City of Vancouver offers many similar materials, but is taking an innovative approach to improving climate literacy by creating a foundational set of customizable materials that aim to establish a consistent knowledge base for City staff, local partners, and residents.

The resultant recommendations for the City of Vancouver reflect what was heard in interviews regarding the role a city should play in mobilizing communities around meaningful climate action and their respective strategies for doing so. With that said, the interviews also highlighted the success of Vancouver's current practices. Areas for improvement nevertheless emerged, which include: increased collaboration, increased transparency and proactivity, acknowledging equity and climate justice,

improving approachability, connecting the dots, and continual outreach innovation.

Reflecting a brief literature review of best practices for climate communication in a Canadian context, the importance of a strong narrative became clear; more specifically, one that presents a challenge to the reader, opportunities for action, and the benefits of such actions. Such a narrative was incorporated into the draft materials created for this project, which include a poster, brochure, and slide decks of varying lengths. These formats were selected after discussions with City staff and with the awareness that many other municipalities have successfully used similar formats for their climate literacy efforts.

In future, alongside the above recommendations, a focus on standalone media (i.e. social media content and traditional media and digital advertisements) may further increase climate literacy. When creating digital or print content, staff in other cities have indicated that taking a humorous or fun approach has yielded a larger audience—incorporating humour into digital media may increase audience numbers. Time-permitting, interviewing more municipalities across the world, especially from the Global South, may yield further insights into climate literacy material formats and messages.

Effectively mobilizing communities towards meaningful climate action will always be an ongoing project influenced by changes in attitudes, technology, and strategies.

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Introduction

Project Description

This UBC Sustainability Scholars Summer 2022 project was conducted in partnership with the City of Vancouver and supports the City's ongoing community mobilization work on meaningful climate action. Through a brief literature review and a series of interviews with other leading municipalities regarding their ongoing community-oriented sustainability initiatives, best practices were identified to guide and inform draft climate literacy materials intended for use among City staff and by members of mobilization networks.

As an initial exploration into the extent of a city's role in encouraging community mobilization around meaningful climate action, the project also aims to highlight areas of future research and content development.

Rationale

Hoesung the Chair the Lee, Intergovernmental Panel on Climate Change (IPCC), has observed that "climate change is a grave and mounting threat to our wellbeing and a healthy (IPCC, 2022). Collectively, humans have caused changes to the global climate and warmed the planet to an extent never seen in recorded history. As the frequency and intensity of extreme weather conditions and events around the world continue to grow, so have anxieties around climate change. In Vancouver, such anxieties were noted in a 2022 public opinion poll conducted by Sentis, which reported that 88% of residents were either "very concerned" or "somewhat concerned" about the effects of climate change (Sentis, 2022).

Reflecting climate anxieties, climate science, and the tangible reality of change climate impacts communities, there has been increased action from all levels of government to counter the climate crisis with actions that have co-benefits for residents and businesses. Locally, the City Vancouver continues their long history of is action and implementing the Climate Emergency Action Plan (CEAP), a roadmap of municipal action to cut local carbon pollution in half by 2030.

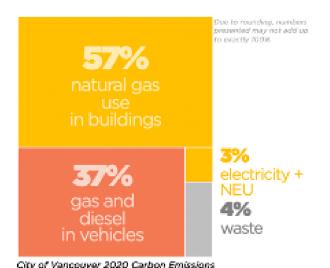
In order for the City of Vancouver to deliver the rapid and wide-scale systems changes needed to cut carbon in half by 2030, support from individuals, businesses. and other levels of government is essential. Currently, many of the popular, enduring ways of tackling climate change are ineffective: they either do not address carbon pollution at all or not to the required scale or urgency. As a result, this project aims to establish consistent а knowledge foundation from which City staff, members of local community networks,

and residents can learn about meaningful climate actions at the municipal scale and understand their role in helping the City achieve its climate targets. With that in mind, this project also aims to clarify the City's own role in supporting residents and businesses to grow their climate literacy, become involved in the City's climate actions, and undertake their own climate actions.

Background

Vancouver's Climate Change Context

Vancouver is emitting more than its fair share globally of carbon emissions through natural gas use in buildings, along with gas and diesel-powered vehicles. In turn, Vancouver is contributing Canada's extremely high emissions—as of 2018, Canada had the seventh-highest carbon emissions per capita and only trailed countries known for high-emission oil refining processes (World Bank, 2018). The globally-felt effects of carbon pollution and consequent climate change have manifested locally in the form of heat domes. heat waves. catastrophic flooding, and wildfires.



Despite having climate plans in place since the 1990s, Vancouver has only achieved a 15% reduction in carbon pollution between 2007 and 2020. Although there have been strides towards a greater reduction in carbon emissions, including energy-efficient and climate resilient buildings additions the building code and build-out of climate-friendly transportation infrastructure, the City is currently not on track to reach a 50% reduction in carbon emissions by 2030.

However, the City's Climate Emergency Action Plan recognizes Vancouver's unique context and will continue to work toward the critical goal to reduce carbon pollution by 50% in the next eight years. To implement these bold and necessary climate actions, the City has identified the need to raise climate literacy by acting as a knowledge hub and catalyzer for community action through websites, equitable engagement, and the distribution of materials that ensure residents are informed about local climate solutions the City is advancing and have the knowledge to act.

The Climate Emergency Action Plan (CEAP)

The Climate Emergency Action Plan includes new policies that represent a rapid acceleration in climate action from the existing climate policies in Vancouver. To be successful, Vancouver needs to work together with residents and businesses to do each do their part advance climate solutions. Vancouver moves forward with this plan, they are committed to working with residents and businesses to understand and address their needs so that when implementing these changes Vancouver is creating a better future for all.

Taking climate action means transitioning off fossil fuels to move around the city, and to heat our homes and hot water. To get on target, the amount of fossil fuel burnt in Vancouver must be cut in half by 2030, reducing carbon pollution by fivetimes the amount per year for the next nine years than previously achieved through the Greenest City Action Plan and Renewable City Strategy.

The four 'game changer' actions in the plan will not work alone and are designed, together with their supporting actions, to cut Vancouver's carbon pollution in half over the next decade. The four identified actions are:

01

Introducing transport pricing in the Metro Core by 2025, which will reduce decrease carbon pollution, congestion, and reallocate road space for more sustainable modes of transportation, resulting in an increase in walking, rolling, cycling and transit use. Revenue will be invested back into climate solutions. Our next step is conduct robust consultation, engagement and analysis to bring back to Council in 2023.

02

Expand residential on-street parking programs city-wide to make more street space available that all can benefit from. A carbon surcharge on parking permits for new, higher priced, gas and diesel vehicles; the surcharge with additional combined infrastructure will accelerate the uptake of electric vehicles. [Note: This policy was not approved by Council in 2021. Creating a policy gap to reach the electric vehicle target and a funding gap for CEAP.]

03

Requirements for existing buildings to transition their heating systems from natural gas to renewable energy and improve their energy efficiency (the latest set of regulations contributing to this target were approved by Council in May 2022).

04

Requirements to decrease the carbon pollution associated with construction materials and practices will result in new buildings being made of low-carbon concrete, mass timber. and cleaner construction practices (the latest set of regulations were approved by Council in May 2022).

Equity is a key part of the Climate Emergency Action Plan. The City is committed to advancing climate action in a way that supports disproportionately impacted communities, includes diversity of residents, and does not burden those already struggling. The City is committed to putting equity at the forefront of these actions. In developing the CEAP, the City worked with its Climate Equity Working Group, completed three equity reviews, and received input about challenges and potential risks from disproportionately impacted populations.

This input shaped the actions that were later put forward in CEAP: some actions were modified or removed from the plan based on feedback received.

Further engagement, research analysis are planned to inform the details of these actions. City staff committed to meeting people's needs by listening to residents and businesses, and working with them to make actions fair and successful. Detailed action plans will be brought to Council before implementation. To be successful, the City will continue to work with regional partners and other levels of government.

By acting now, the City is doing their part to minimize future risks. Making swift and deep cuts to local carbon pollution now will save money in the long term. Inaction will make climate adaptation much more expensive down the road. Through these actions, the City is not only cutting carbon pollution, it is creating a future that prioritizes healthy people and communities, and helps build a resilient city with a strong green economy. To meet emission targets, the City will need to increase the level of investment on climate action and will need increased investment other from levels government and partner organizations. That investment, however, will provide long-term savings for residents and businesses. The CEAP thereby builds on a long history of forward-looking climate action, a strong foundation of zero emissions building policies, and transportation planning.

Summary of Survey Data (2022)

In April 2022, 417 adult (18+) residents from the City of Vancouver participated in an online survey conducted by Sentis regarding attitudes and actions in response to climate change, awareness and support for the City's environmental action plans, and awareness and perceptions of heat pumps and other energy sources.

Some key takeaways from the data include:

Vancouver residents are concerned about climate change, but not necessarily "very concerned."

4 4% consider themselves "very concerned" and 44% consider themselves "somewhat concerned."

Top concerns about climate change have changed between July 2020 and April 2022.

The 2021 heat dome pushed anxieties about extreme weather and natural disasters up from 13% to 23%. Similarly, concern about changing weather patterns increased from 8% to 13% in that same time frame.

Over half of those surveyed (56%) are more concerned about climate change when compared to one year ago.

Few residents consider themselves knowledgeable about climate change; most of those who do are very concerned.

32% of respondents were not "very knowledgeable" but "very concerned" about climate change, whereas 12% were "very knowledgeable" and "very concerned." By contrast, 51% indicated they were not "very knowledgeable" and also not "very concerned."

Young residents (18-39) are the most likely to say they are at least somewhat knowledgeable about climate change.

Climate change evokes many emotions, most of which are negative.

57% of those polled indicated that their main feeling about climate change is "concerned/worried."

38% of residents indicated they are aware of the Climate Emergency Action Plan in 2022, as compared to 30% in 2020.

34% of respondents indicated that the City is doing the right amount to address climate change.

10% noted the City is doing too much and 26% said the City is not doing enough. 30% do not have an opinion.

Most residents do not know what they should be doing about climate change.

Their top suggestion is to reduce single-use plastics (37%), resulting in 54% of participants indicating that "practical tips to take action on reducing your carbon footprint" is the best way of addressing climate change.

Only 6% correctly identified that the top contributor to carbon emissions in the City arise from heating buildings and hot water.

This number is down from 10% in 2020. Currently, carbon emissions from vehicles, along with those related to industry and manufacturing, are believed to be the biggest contributors to climate change.

75% of residents have heard of heat pumps.

10% are familiar with them. 40% of homeowners surveyed have considered installing a heat pump in their home and are motivated to do so for its air cooling and heating function.

Over half of homeowners would find it helpful to have a website with heat pump information, incentives, and contractors if considering a heat pump

The top misconception is that heat pumps are expensive to install.

39% of residents feel heating with electricity is better for the environment than natural gas.

43% are aware that air pollution from gas appliances has been linked to health concerns.

Half of residents (51%) are aware of renewable natural gas (RNG).

Comparisons with Metro Vancouver Polling Data (2022)

When compared with polling data from a survey with 1,532 adult Metro Vancouver residents about their thoughts on climate change, some similarities emerged. One notable correlation was that a majority of residents in both regions are concerned about climate change impacts in the foreseeable future, with most of those surveyed in the City and Metro Vancouver worried about weather-related impacts.

In both the City and Metro Vancouver, the top source of carbon pollution was correctly identified by 6% of those surveyed.

Finally, Metro Vancouver respondents have a less favourable view of the actions their local government is doing to address climate change, with only two-in-ten—or fewer—residents feeling that their local, provincial, or federal government has done a good job. They are also less aware of local actions being taken by their local government, with over one-half of residents unable to cite one or more.

Summary of the City's Community Mobilization Work

The City of Vancouver's Sustainability Group recognizes the importance of community support, compliance with regulations, and participation in the resulting programs and initiatives arising from the implementation of the Climate Emergency Action Plan (CEAP), Climate Change Adaptation Plan, the nascent Vancouver Plan. and ongoing sustainability objectives. While opportunities to mobilize the community around the City's strategic plans are nearly infinite, City capacity resources to pursue those opportunities are finite.

The Sustainability Group is responsible for overseeing a number of programs relating to community mobilization, which include the Greenest City Grants, the Greenest City Scholars Program, CityStudio, the Greenest City newsletter and social media presence, the Amplifier Network, and the Women4Climate mentorship program.

Ongoing work is being done to fill gaps in community mobilization outreach efforts as well as assessments of existing programs and initiatives to ensure they are continuing to mobilize City of Vancouver communities effectively.

What We Learned: Best Practice Research & Interviews

Best Practice Research

Drafting Effective Climate Literacy Materials

A brief literature review was conducted for this project that aimed to identify some key principles and best practices for creating effective materials. addition to input received through the interviews undertaken for this project, output from various organizations were consulted, including Climate Visuals, the Yale Program on Climate Change Communication, and Climate Access. These three organizations have conducted considerable research on how to effectively communicate about climate change and climate action. Supplementing the initial best practices proposed by these expert groups is information and examples from the municipalities interviewed for this report.

After review and synthesis of the research, four prominent best practices for the creation of climate literacy materials emerged: creating a localized and scaled narrative, understanding the many different audiences that need to be reached, the value of different tones, and ensuring clarity and transparency in the materials presented.

Creating a Scaled, Localized Narrative

In order to effectively communicate about climate change, it is important to scale the messaging up or down to avoid overwhelming or putting all onus on the individual. Addressing the role of the individual is key, but also acknowledging that individual climate action is often supported or enabled by systems change through organizations or governments.

Such scaled messaging should also be localized to reflect the unique context of the city, town, or district in question. Including specific references to local policies, landmarks, industries, along with localized imagery increases the likelihood that the material will resonate with the Furthermore, it concretizes reader. climate change by presenting it as a local concern with clear and immediate ramifications, rather than a distant threat. Reflecting research done by Climate Access, such a narrative should incorporate the challenge that climate change poses on the community, the benefits of taking, and the actionable pathway to reach those benefits in a way that facilitates linkages with City actions that require resident support.

Understanding the Audience(s)

There are many different audiences that may encounter climate literacy materials produced by any level of government or organization. A notable example of efforts to understand the possible audiences of climate materials is the Six Americas <u>project</u> spearheaded by the Yale Program Climate on Change Communication. As such, it is important to understand the different attitudes towards, and awareness of, climate change that these audiences may have and adjusting materials accordingly to reach people where they are at. Likewise, it is critical to identify the different audiences that may exist. This may mean creating specific materials for different audiences representing a variety of areas of opportunity, values, and cultures.

Similarly, when presenting meaningful climate actions that readers can take, it is important to include actions that can be taken by any reader, regardless of age socio-economic background. For example, mitigative or adaptive actions that homeowners can take can vary quite widely from the possible actions a renter or school-age youth may be able to perform. While there exist considerable challenges to sharing targeted advertisements, adding variation to shared content is one possible solution. Although some messages may not resonate with particular audiences, there is an increased sense of inclusion.

Different Tones

Adopting different tones, depending on the materials being created, may help increase readership and the extent to which any climate literacy materials ultimately resonate with audiences. Employing different tones for different materials or audiences may increase resident engagement and reduce apathy. As many interviewed municipalities noted, positivity is important; potentially balancing hopeful messages with severity may be one way of incorporating different tones into messaging.

To a certain extent, weaving in humourous materials may also increase engagement. As noted by New York City, humourous social media posts generate a lot of response and interest. It may be most useful to consider lighter tones when producing online content.

Ensuring Clarity and Transparency

Reflecting the above polling data, which indicates 30% of City residents surveyed do not have an opinion on the City's approach to tackling climate change, alongside the wider Metro Vancouver polling data that only two-in-ten think the government—whether municipal, provincial, or federal—is doing a good job, it is important to make climate literacy materials accessible, transparent, and clear, particularly when discussing the work being done by all levels of government.

Clearly and succinctly explaining what actions the City can take, its powers, and summarizing key climate change-related

policies will help residents better understand their role in taking meaningful climate action and emphasize both the existence and importance of collective action.

Further, highlighting the results of ongoing climate action efforts by clearly explaining what Climate Access terms 'the solutions pathway' will encourage audiences to understand their role and continue their efforts, while simultaneously building trust in the government and its capability to achieve ambitious climate targets.

About the Interviews

Interviewed and Contacted Municipalities

Central to this project was identifying cities around the world that are leading in their efforts to promote climate action through community mobilization. Reflecting input from the Community Mobilization Working Group at the City of Vancouver, a list was compiled with municipalities that were then contacted.

The following eight municipalities were interviewed for this project: Copenhagen, Denmark; Edmonton, Alberta; Melbourne, Australia; New York City, New York; Oslo, Norway; Portland, Oregon; Richmond Hill*, Ontario; Toronto, Ontario.

Municipalities that were contacted but unavailable for interviews included: Boulder, Colorado; District of Saanich, British Columbia; London, United Kingdom; Malmö, Sweden.

*Richmond Hill was primarily contacted to discuss their Climate Change Conversation Toolkit, but staff were also asked some of the main interview questions.

Timeline and Logistics

Outreach took place throughout May 2022. Interviews with interested municipalities took place over the course of June to July 2022. Interviews ranged from 45 to 75 minutes in length and were conducted either face-to-face over Zoom or through email. In each interview, the project was explained prior to the

commencement of the interview. All participating municipalities were interviewed or, due to time zone and/or interview scheduling difficulties, able to send in written answers. All participants (except Richmond Hill, due to the slightly

different interview subject) were sent the questions in advance (Appendix 2). For the municipalities who sent in written answers, all the questions were provided beforehand in a PDF document.

Summary of Interviews

When it comes to community mobilization around climate action, cities around the world are continuously reworking their approaches to public engagement and climate change education in light of the lingering effects of the COVID-19 pandemic, and the consequences of climate change at all scales of government and urban life. In light of recent, localized extreme weather events, many of the municipalities interviewed indicated a notable increase in concern around climate change and a simultaneous increase in public interest around municipal climate action efforts. Other cities have similar climate goals with an emphasis on drastically reducing emissions from buildings and transportation Copenhagen, for example, is trying to halve carbon emissions by 2035.

To reach as many communities as possible and capitalize on this increased concern and interest, City staff in many of the interviewed municipalities are focusing on further increasing literacy and an awareness of opportunities to take meaningful climate action. In most cases, such an increase also involves

raising awareness about specific City programs and policies and linked actions that residents can perform. To do so, they are utilizing their informal and formal networks and the strategic distribution of relevant materials, which tend to be brochures, television ads, and social media posts. All of the interviewed cities have different capacities for such work, depending on office size and resident population. Municipalities are also working to promote relevant funding, which range from grants for local organizations to subsidies for building retrofits; Cities are typically providing the funding they promote to residents. Retrofits, in particular, are a common topic that most of the interviewed cities are working on in collaboration with local business owners, building owners, and managers. Finally, planning both inperson and online events to reach all residents have been a focus for most cities; innovative and interesting events like Fix-It Fairs and movie screenings are successful examples of drawing residents to outreach opportunities where staff can connect participants to other opportunities for impactful climate action.

Every interviewed municipality has a website that largely functions as a hub climate-related materials includes relevant climate action-related knowledge that includes City-led programs and initiatives, a portal for all things related to municipal climate action, or a combination of the two. Depending on the size of the city, this hub may serve as a navigation page to help residents reach specific pages for substantial initiatives and campaigns (as an example, New York City's GreeNYC links to other projects like their social justice Bring It campaign).

Otherwise. the creation of other materials varies considerably by project, policy, and city context. Indeed, the unique contexts of individual cities, regions, and countries surfaced in the interviews, with municipalities typically having different areas of focus united by larger key themes. A notable example is the interviewed that American municipalities generally have increased emphasis on environmental and social justice. In Europe, the interviewed municipalities were focused

strengthening networks with on businesses and place emphasis on the integral role cities play in achieving climate targets. As for Canadian cities, there were many similarities in climate change messaging and developed materials. Many of the staff interviewed in Canadian cities emphasized, among other things, the importance of positivity and cultivating strong networks that typically include some form of champions programming. With that said, are more similarities differences between cities, largely due to a strong culture of collaboration between cities around the world, particularly among those in geographical proximity to one another. For example, staff from Edmonton and Calgary, Alberta regularly discuss climate-related meet to messaging; such cooperation often results in aligned messaging materials that are adjusted to reflect local or regional priorities. As a result, despite any differences in geographical and social contexts, there were some key themes that emerged in the majority of the interviews.

Key Themes

Arising from the interviews were the following six key themes, which are hereafter summarized. Since each city has its own approach to meaningful climate action that reflects local contexts and audiences, all of the themes are described at a very high level

with examples provided when appropriate. Where possible, examples from the City of Vancouver's current work are noted.

City as Stakeholder vs. City as Participant The role of a City in encouraging climate action and catalyzing community mobilization can depend on whether it assumes the role of a stakeholder or a participant. When participating in an initiative, rather than planning it, cities can hear different voices and see alternative perspectives. Outreach and engagement can be approached in a similar fashion.

The City of Vancouver leads and works with partner organizations as both a stakeholder and participant. As a stakeholder, the City runs the Amplifier Network. As a participant, the City has been part of Stephen Sheppard's Collaborative for Advanced Landscape Planning and the One Earth Programs.

Partnerships

While each municipality has its own partners, both formal and informal networks emerged as essential to the done every municipality work by Such connections interviewed. essential to closing any outreach gaps and are the foundation for many significant climate action projects in the community. Municipalities often work closely with local organizations, schools, volunteer national groups, and foundations, among many others.

Reiterating the above point, the Amplifier Network is an example of partnerships at the policy level. The Network's members come from a wide range of community organizations and are encouraged to share information about the Climate Emergency Action Plan—along with engagement and participation opportunities—with their own networks to ensure outreach includes as many people as possible.

Funding

Providing incentives, whether through grants, subsidies or other forms of compensation, is fundamental encouraging meaningful climate action. A notable example found in municipalities is providing subsidies for homeowners who retrofit their homes with electric heat pumps and other related sustainable home improvement projects. Supporting local environmental justice organizations or sustainabilityoriented groups with grants is also another common way of supporting climate action. An important part of providing such funding, however, is also successfully promoting it to relevant audiences. Such outreach can include inperson boothing (pop-ups or at events), online tools, and social media posts.

In the City of Vancouver, there are several such incentive programs available for building retrofits and electric heat pump installation. To support local organizations, the City has the Greenest City Grants program, along with neighbourhood grants, available.

Flexibility

Creating materials and programming that can be adapted to suit a variety of audiences is an important way of increasing uptake among different types of residents (i.e. homeowners, renters, business owners, youth). When developing climate literacy materials, events, or programs, ensuring they are easily customizable and understandable by adopting a 'plug-and-play' approach can result in increased viewership and increase their efficacy.

municipalities many indicated. As flexibility also encompasses the short and long-term effects of the COVID-19 pandemic on outreach and engagement outcomes. Being able to adapt outreach programming (i.e. switching from inperson to online events, etc.) is critical to ensuring consistent climate literacy education in a manner that is both safe and equitable. The City of Vancouver's climate action content is always evolving based on best practice research and current offerings. Further, in order to ensure content reflects shifts in local contexts, the City conducts annual polling to monitor community understanding and sentiment on climate action—communications are adjusted accordingly.

Education

Depending on capacity, some municipalities have increasingly focused on educating local youth and young adults. As New York City staff noted, such a focus reflects interest from 'Gen Z' youth in taking climate action and their curiosity about actions they can take to support climate change adaptation and mitigation. In Richmond Hill, Ontario,

climate literacy has been integrated into local school curricula, with emphasis placed on incorporating aspects of their Climate Change Conversation Toolkit.

The City of Vancouver has a history of supporting climate action education for local youth through programs like the Climate Change Showdown, the Collaborative for Advanced Landscape Planning's climate curriculum, and the Dreamrider Productions' climate play for school-aged children. For university students, the City runs City Studio and partners with the University of British Columbia on the Sustainability Scholars Program.

Equity

In most municipalities, there are internal and external efforts to ensure an equitable approach is taken to climate action and policy-making more broadly. City staff in many municipalities are also taking part in mandatory education on social justice and Equity, Diversity, and (EDI). Due Inclusion to capacity constraints, some municipalities are unable to forefront equity in their current work as much as they would like, but are actively working to increase its presence future policies, programs, initiatives. With that said, improving equitability is a priority for all of the interviewed-many recognized that there is constantly work to be done on this front-and, as such, is one of the recommendations for the City discussed later in this report.

Positivity

As noted by Toronto, Edmonton, and other interviewed municipalities, it is to convey hope where important possible. Such positivity typically involves an emphasis on the achievability of climate targets through collective resident, government, and corporate action. One of the City of Toronto's key messages is that it is possible to meet greenhouse gas targets with current technologies.

As an example, local resident success stories are welcomed and shared online through initiatives like Richmond Hill's Resilient Stories site. Balancing or complementing serious communications with more positive, uplifting facts and stories is key to increasing readership and ensuring residents know their efforts are yielding good results.

The Role of the City

Building on the above themes, there are four important and interrelated aspects worth considering when identifying the city's role in encouraging community mobilization towards meaningful climate action. Where appropriate, references to, and examples from, the interviewed municipalities are highlighted. These aspects are city as a leader, enabler, educator, and participant.

City as Leader

Cities must lead by example through their own actions, whether through reducing the carbon pollution associated with their operations, setting policy to drive community action, or advocating for other governments to take climate action.

The City of Vancouver has embraced this particular role as both a leader in the community and for other cities. However, maintaining this position requires

continuous work and the City must keep residents and other cities up-to-date on the work they are doing in an accessible transparent manner. After and completing the series of interviews, it became clear that municipalities leading in the development of sustainabilityrelated policies, infrastructure, initiatives around the world are taking a similar approach in recognition of the central role that cities play in ensuring countries—and world-reaches the sustainability targets set out by the Paris Agreement and responds effectively to research conducted at all scales, whether locally, national, or globally organizations like the United Nations and the Intergovernmental Panel on Climate Change.

City as Enabler

In addition to working directly with partners and in communities, cities should occasionally take a step back and support initiatives spearheaded by local organizations and individuals and use the results to inform their current and future projects. Cities can enable such work by providing grants, mentorship opportunities, subsidies, and internships. In the process, city staff should work to build relationships with schools. community groups, and residents to ensure all are aware of the opportunities to take meaningful climate action and future collaboration.

Through programs like the Amplifier Network, Women4Climate, and Buyers for Climate Action, the City of Vancouver is enabling individuals and organizations to take action. Other cities have similar programs in place, such as Edmonton's Clean Energy Improvement Program, which focuses on providing homeowners and organizations with access to lowcost financing to make energy efficiency install new efficient upgrades or appliances to their properties. Another example is New York City's GreeNYC, which encapsulates a variety of different initiatives geared towards environmental justice, building retrofits, outreach work, and data accessibility.

As the City of Toronto noted, it has learned that champions programs and community networks can spread messages and inspire residents at a very high level. Enabling community leaders to speak about climate action and how residents can get involved can have a significant effect on improving climate literacy and community mobilization.

City as Educator

To ensure that residents are aware of the effects of climate change and understand best ways to take meaningful climate action, Cities should provide educational resources that can be customized to reflect any and all levels of climate literacy. Furthermore, as was aptly noted by Richmond Hill staff, replication is key: materials and resources should be easy to copy, customize, and share in order to create a dynamic ripple effect within the community.

All of the municipalities interviewed for this project have a main website that contains most of their specific climate action-related information and projects. Where cities differ are the additional materials produced to increase climate literacy in their respective communities; for example, Richmond Hill's innovative Climate Change Conversation Toolkit and the City of Edmonton's <u>Tiny Explanations</u> video series. In Melbourne, two notable conversation-based education efforts include Melbourne Conversations and Conversation Caravan. Melbourne Conversations focuses on connecting residents to their community through discussion and participation on key, challenging ideas surrounding culture, creativity, liveability, and sustainability. Conversation Caravan is a pop-up approach to engagement and outreach that educates residents on climate change issues, encourage community members to reduce impact on climate change, and gauge responses to

Melbourne's Climate Change Mitigation Strategy to 2050.

City as Educator

In addition to enabling and educating local partners and organizations, cities can also foster sustainability-related innovation further by supporting emergent and current non-profit organizations, climate justice groups, and researchers by participating in their initiatives, programs, and studies. By participating in climate action-related work instead of leading it, cities can perhaps learn new strategies community mobilization and climate action. Furthermore, they may be able to hear new perspectives from communities or groups that may not normally participate in city-led projects. To effectively lead, it is important that cities also stay informed about and otherwise support the important work done within their communities.

Recommendations for Vancouver

As a nationally and globally-recognized leader in sustainable practices, climate action, and environmental policy-making the City of Vancouver is already, in many respects, successfully working as a leader, enabler, educator, and participant.

While other cities have created and continue to produce a variety of different climate literacy materials, the City of Vancouver's focus on establishing consistency across all materials is unique. However, based on actions other cities are taking and best practices noted in the interviews, there nevertheless remains areas of improvement:

Increased Collaboration

There are three dimensions to this key recommendation for the City: cross-city collaboration, internal collaboration, and community collaboration.

In interviews, it became clear that some cities were greatly benefiting from close collaboration with other cities. Staff from these cities, particularly Edmonton and Alberta, provide updates, Calgary, feedback, share new ideas, or borrow ideas from each other-they typically meet once a month. While the City's size and reputation may limit opportunities for close work with smaller cities, ongoing climate action efforts may benefit from regular meetings with cities working on similar projects or with similar population demographics or sociocultural contexts. Such collaboration may yield new ideas or useful feedback. There are also broader regional, national, and

organizations focused global on improving collaboration and the crosspollination of ideas between cities; as recognized leaders in climate action and sustainability, many of the interviewed cities are part of such networks. One notable example of such a network is the C40 Cities Climate Leadership Group, which includes Copenhagen, Vancouver, Portland, Toronto, New York City, and Melbourne.

Improving internal collaboration may also be beneficial; as noted by New York City, it is important to make climate action an everyday part of city operations across all offices and communications, not just a concept that emerges during particular, climate-oriented projects. To achieve this goal, they are implementing a series of laws that involve incorporating environmental justice into all decision-

making and are currently working on a study of environmental justice concerns in the City that will be used to develop a plan that will address said concerns. As such, New York City is currently focused on the process of understanding what issues exist in the City and how the City has contributed to them over time; undoing that legacy is at the core of the City's environmental justice work.

Lastly, bringing together multiple groups in the community—as is already being done with the Amplifier Network-in greater capacity improve may community mobilization. For instance, The City of Portland established a coalition called Build Shift, which involves the City, county, and environmental organizations iustice creating framework for low-carbon and healthy building standards.

Increased Transparency & Proactivity

Many of the interviewed staff noted that local politics had an impact on the work being performed in sustainability offices, whether that meant office restructuring or how the public perceived the work being completed by all municipal offices. In Vancouver, polling data and general sentiment indicate a lack of trust in the local government and a knowledge gap with regards to what is being done to mitigate or adapt to climate change, among other topics.

Consequently, it would be beneficial to approach climate action and community mobilization in a transparent manner that clearly and succinctly explains the work the City has been doing, the City's role in current and future climate change initiatives, and the extent of the City's powers. Climate literacy materials and resources would benefit from increased clarity regarding City policies. As noted in the interview with New York City, people connect to results: being transparent

with the outcomes of projects, surveys, or research—regardless of success—will help build trust within the community and provide tangible, digestible content.

Oftentimes, social media shared by third parties that may not contain factual or impartial information can control the narrative of the City's work. As such, increasing communications proactivity will also be beneficial to the narratives around climate action that the City creates. Addressing concerns before they emerge, or responding to potential advocate'-type questions in advance may prevent the dissemination of misinformation. Final climate literacy materials can contribute to the City's narrative by answering key questions, sharing important messages, and getting ahead of anticipated dis-information Furthermore, campaigns. having community partners and passionate residents spread these messages may also increase their uptake among the

general public; hearing key messages from non-City staff and spokespeople may make more people listen.

Another aspect of this recommendation that is worth considering is the importance of closing the loop and sharing back what was heard during public engagement and how it has affected the development and outcome of climate-related policies, programs, and initiatives.

Improving Equitability & Environmental Justice Lenses

While the City is working on a Climate Justice Charter and has long worked to ensure equitability in its climate actions and solutions, it remains important to constantly re-examine the efficacy of the City's equitability and climate justice lenses to ensure no one is being left behind and that everyone can take part in the City's work.

As noted in many of the interviews with municipalities, other especially American ones, it is important to recognize how environmental justice can be incorporated into climate action and mobilization. Presenting community actions that carry a heavy economic cost for individuals and business owners or otherwise fail to recognize growing social inequalities in the city may not be wellreceived; the City needs to carefully negotiate the balance between ambitious solutions and resident response. For example, suggesting that residents switch from gas and dieselpowered vehicles to electric vehicles is

an expensive solution targeted to affluent residents. There should always be options that all communities can implement in their daily lives.

In Vancouver, the housing affordability crisis necessitates the constant improvement of the City's equitability and environmental justice lenses. Since home ownership remains out of reach for a large portion of the public, climate actions must reflect that many cannot retrofit homes.

With that said, municipalities tend to speak rather generally about how equity surfaces in their work, policy, and communications. There tends to be broad statements that assure readers and residents that equitability is a priority, but not much detail as to how, where, and what forms of equitable climate action are actually being prioritized. This may be because equitability actions vary considerably depending on the policy, community, and

city at large. Nevertheless, moving past sweeping statements that reiterate key messages like 'no one will be left behind' is necessary to demonstrate that these lenses are evolving and effective.

Improving Approachability

As the municipal government for a large City Vancouver city, the understandably lacks the approachability of smaller Canadian cities. While it is impossible to entirely replicate the close relationships that staff have with their residents in smaller municipalities like Richmond Hill, the City could benefit from closer involvement with citizens beyond outreach staff and outside of existing partnerships and programs. Providing opportunities for all residents to informally meet City staff-some municipalities noted the success of hosting Instagram takeovers-may increase trust in the local government by showing residents the day-to-day work that City staff complete. Furthermore, such informal opportunities may be seen as less daunting and time-consuming than speaking at Council meetings or joining official City programs.

Another way of improving approachability and the efficacy of the City's key messages is through the materials the City creates and shares with residents. Transforming messaging and delivering it in a more informal,

digestible way may yield greater success in terms of both improving the City's relationship with residents and the popularity of the materials themselves. Richmond Hill developed their Climate Change Conversation Toolkit largely because they recognized the community emissions plan developed by the City was not in layman's terms. Another notable solution to this issue is the City of Edmonton's Tiny Explanations video series, which presents information on climate change in an easily digestible and visually appealing format. Cultivating approachability in in-person interactions is also important and both Edmonton and New York City indicated the importance of meeting people where they are, whether that mean physically or digitally interacting with them or learning more about people's interests, the languages they speak, or determining who has influence in particular communities.

The value of balancing serious messages with lighthearted ones—whether humourous or recognizing the benefits of ongoing climate action efforts—was noted in general feedback received from Vancouver community partners, along

with observations from the City of Melbourne, the City of Toronto, and New York City. Positivity is a central part of reaching people and reminding them of how they can successfully contribute to a more sustainable city. Some specific examples of such positive messaging includes Toronto's TransformTO Net ZeroClimate Action Strategy, which notes that the City is on track to reach its net zero goal earlier than anticipated.

Connecting the Dots

In many of the interviewed cities, links have been established between local extreme weather events, public health, and improving both climate literacy and steps towards meaningful climate action. For example, New York City has noticed increased interest in climate change adaptation and mitigation Hurricane Sandy and recent extreme flooding affected the city and its residents. By linking these events to climate change, cities like New York City have created a narrative that is easy to follow and spotlights the relationship between climate change and everyday life. Similarly, Toronto has learned that it is important to link climate action to daily life and behaviours.

The City should, in a similar fashion, work to establish a localized narrative that highlights the relationship between climate change, public health, and meaningful climate action. One way of doing so is to feature a narrative with clearly-explained challenges, opportunities, benefits, and results in literacy materials. Reflecting the work done by Vancouver Coastal Health (VCH) at the intersection of health, climate change, and climate action, the City could potentially partner with VCH on the production of more communication materials (VCH, 2022).

Continual Outreach Innovation

Much of the City's current success arises from its ability to continually come up with different ways of encouraging, supporting, and catalyzing meaningful climate action through outreach. Most municipalities presently and successfully use-especially those with related sociopolitical-economic contexts-similar strategies in those areas. As such, it remains necessary to continue exploring new ways to engage residents and ensure climate targets are reached. Finding novel ways of presenting everchanging information will be a central increasing community way mobilization towards meaningful climate action.

While the City already revisits and existing outreach modifies and engagement efforts, people's lifestyles and travel patterns are constantly shifting and such modifications should be made on a more frequent basis. Due to the pandemic, these patterns have likely shifted even more. The City should consistently revisit existing outreach strategies and revise them to reflect changes in local life (e.g. events, an increase in hybrid work schedules, the completion of new business complexes or centres). Strategies should also be adjusted to reflect gaps in outreach, which may change depending on the policy or project.

Marketing outreach and engagement should also be tailored to reflect any

gaps or clear changes in lifestyles. Much like the events themselves, these efforts should also be focused on going where people are at, whether that means a particular social media platform, a specific community centre, a big event, or a particular neighbourhood. As noted the interview with staff Edmonton, going to events-rather than organizing them-can mean reaching more people: for example, setting up a booth at music festivals or local sporting events. Indeed, staff at Richmond Hill launched the successful Climate Change Conversation Toolkit in conjunction with a film screening, which resulted in approximately 250 attendees.

Draft Climate Literacy Materials

About the Materials

The draft climate literacy materials included in this report were designed to reflect the review of best practices for climate-related communication and what was heard in the interviews with other leading municipalities. During the revision process, feedback was solicited from the City of Vancouver's Amplifier Network, the Community Mobilization Working Group, and other members of the City's sustainability team.

The materials created for this project include a climate action brochure, poster, and a customizable slide deck available in three lengths (short, medium, and long).

Goal of the Materials

The goal of these and future climate literacy materials is to create a consistent knowledge foundation across all demographics and target groups, which include City staff, community partners, and the general public. As initial drafts, the materials are intended to serve as a starting point and jumpstart the City's future climate literacy work.

Equity and the Materials

Reflecting the City's commitment to equity, the materials were created with the awareness that all readers will have different positionalities. As such, they are intended to be customizable in order to ensure that they are accessible in terms of knowledge and action opportunities. While these current iterations attempt to discuss climate justice in Vancouver, it may be worthwhile to consider adding more information and resources on this topic in the materials that are ultimately distributed.

With that said, the materials are intended to be equitably distributed. They can be distributed widely to all communities, but an emphasis can be placed on places and spaces linked to outreach gaps.

Creation Timeline

Draft materials were created throughout May to July, 2022, with later rounds reflecting advice and best practices from other municipalities. Altogether, the materials included in this project underwent four rounds of revision.

Climate Action Brochure

About the Brochure

The "Taking Climate Action" tri-fold brochure is intended to serve as a general overview for the public, City staff, and community partner and follows the challenge-opportunities-benefits narrative arc supported by Climate Access' research into best practices for climate-related communication. It aims to close existing knowledge gaps highlighted in the City's polling data, specifically the misidentification of the top carbon pollutants in the city, the lack of awareness surrounding the City's actions, and the clarification of what constitutes meaningful climate action.

Recommendations for Usage

As a standalone material, the brochure can be handed out at outreach events—popups, dialogues, open houses, information sessions—around the city. It can also be mailed out directly to Vancouver residents. Brochures can also be provided to community partners or City facilities like libraries and community centres for distribution at front desks or information kiosks. They can also be shared with non-City facilities—schools, businesses, offices—for distribution. Another usage opportunity could be distribution after a presentation or event.

Draft Visuals

See next page.



Scientists agree that climate change is widespread, rapid, and intensifying around the world. Failing to act will mean more deadly extreme weather events in Vancouver.

If governments, businesses, and individuals come together, we can reduce carbon pollution while preparing for climate impacts. Collectively, we can make a difference in a way that prioritizes the wellbeing of all residents and leaves no one behind.

As leader in urban sustainability measures, we are in a position to innovate further and demonstrate how to successfully take climate action.

STAY INFORMED

Use your voice. Speak at Council meetings, hearings, and share your perspective with us.

Subscribe to our newsletter or follow our social media channels to hear about the latest developments, chances to provide input, and opportunities to take meaningful climate action.









TAKING CLIMATE ACTION

WORKING TOGETHER TO CREATE THE FUTURE WE WANT



3% electricity + NEU
4%

CITY CONTEXT

Did you know? Nearly all of Vancouver's carbon pollution is generated from natural gas use in buildings and gas or diesel-powered vehicles.* A significant source of vehicular emissions are supply chain and consumption-based. We need to halve these emissions to avoid climate catastrophe and climate-related mortality.

While -90% of residents are concerned about climate change,** few correctly identified the top polluters, which affects perceived solutions. While recycling and reducing electricity use are great sustainability actions, they do not reduce carbon pollution in Vancouver. Together, we must do more to avoid (mitigate) and respond (adapt) to climate change.

*This only includes carbon pollution the City of Vancouver has jurisdic over and does not include emissions from the Port or Airport

OPPORTUNITIES

THE CITY'S ACTIONS The Climate Emergency
Action Plan (CEAP) serves as a roadmap to halve carbon pollution by 2030. Through urban planning, municipal regulations, and City fees, programs and services we can cut emissions from construction and building operations, increase walking, cycling and EV infrastructure, and support an equitable transition



- Get informed and spread the word.
- Change the system: participate in elections and engagement processes.
- Change how you heat your home and move around the city:
 - Replace gas furnaces
 with electric heat pumps
 that provide heating and
 cooling.
 Cycle, walk, or transit
 - Cycle, walk, or trans when possible.
 - Switch to EVs.
 Plant a tree: sequesters carbon and helps keep cool.







CREATING A BETTER FUTURE FOR ALL

- By working together to reduce carbon pollution, we can create a better Vancouver that responds effectively to climate change and protects those most vulnerable to its effects in our communities. Our actions can result in:
- Better access to daily needs, allowing more time for what you love.
- More energy efficient buildings with improved comfort and air quality.
- Improved access to affordable, safe, and healthy transportation options.
- Stronger green economy, with local jobs supporting a just transition.
- A city that is reilisent to rising sea levels and more frequent extreme

Climate Action Poster

About the Poster

The "How to Take Meaningful Climate Action" poster is intended to convey different opportunities to take meaningful climate action at a variety of scales and thereby raise awareness. As the shortest of the three draft materials, it aims to highlight the key action items touched upon in the slide deck and brochure without appearing repetitive. It was designed as a material that could be posted in high-traffic areas around the city and read quickly. In case the reader would like to learn more, there is a QR code that will prompt the viewer to sign up for the City's monthly e-newsletter.

Recommendations for Usage

Much like the brochure, the poster can be mailed out to Vancouver residents, distributed at outreach events, given to community partners or City facilities, or put up in areas with significant foot traffic. It can also be shared on the City's social media pages or included in newsletters—physical or emailed.

Collaborating with TransLink to put up posters in SkyTrain stations and bus shelters may also be an effective way of raising awareness.

Draft Visuals

Two version of the poster are included on the next two pages: one with organized suggestions that follow the overarching narrative of 'change minds, change lifestyles, change the system' and the other with ungrouped suggestions.





HOW TO TAKE MEANINGFUL

Climate Action

9 out of 10 Vancouver residents expressed concern about climate change and its consequences. Here are 6 ways you can reduce carbon pollution in the city and contribute to a healthier, more equitable future for all.

CHANGE MINDS

CHANGE SYSTEMS

CHANGE LIFESTYLES



Get informed

Learn about ways to support climate change adaptation and mitigation.



Engage

Help inform Vancouver's climate action through Shape Your City.



Cycle, walk & roll

Take active modes of transport when possible.



Spread the word

Share information with family, friends, coworkers, neighbours – anyone!



Raise your voice

Talk about what matters to you: speak at council meetings and use your vote.



Retrofit your home

Replace natural gas furnaces with electric heat pumps that provide heating and cooling (rebates are available!).



Stay up-to-date on local climate action opportunities:

vancouver.ca/green-news





HOW TO TAKE MEANINGFUL

Climate Action

9 out of 10 Vancouver residents expressed concern about climate change and its consequences. Here are 6 ways you can reduce carbon pollution in the city and contribute to a healthier, more equitable future for all.



Engage

Help inform Vancouver's climate action through Shape Your City.



Cycle, walk & roll

Take active modes of transport when possible.



Switch to an EV

Avoid carbon pollution from burning gas and diesel.



Retrofit your home

Replace natural gas furnaces with electric heat pumps that provide heating and cooling (rebates are available!).



Raise your voice

Talk about what matters to you: speak at council meetings and use your vote.



Spread the word

Share information with family, friends, coworkers, neighbours - anyone!



Stay up-to-date on local climate action opportunities:

vancouver.ca/green-news

Climate Literacy Slide Decks

About the Slide Decks

Of the three draft materials, the Climate Change, Action & Mobilization slide decks are the most detailed. They are intended to function as easily customizable slides that can either be presented separately or be included in a presentation that would benefit from contextualizing or establishing a common understanding of climate action efforts in Vancouver. In consideration of the fact that presentation lengths may differ, three different slide decks have been created. All have the same fundamental information, but with varying levels of detail evident in both the slides and the speaker notes.

Short Deck

The short deck consists of the following slides:

- Title slide: Climate Change, Action & Mobilization
- IPCC slide
- Vancouver Today
- The City's Actions
- The City's Mitigation Measures
- The City's Adaptation Measures

- The Private Sector's Actions
- Actions Citizens are Taking
- What are we all working towards?
- How can you help?
- Thank you!

Medium Deck

Building on the short presentation, the medium slide deck consists of the following slides (new slides are **bolded**):

- Title slide: Climate Change, Action & Mobilization
- IPCC slide: "The science is clear. Any further delay in concerted global action will miss a brief and rapidly closing window to secure a livable future."
- Climate Change
- Vancouver Today
- The City's Actions
- The City's Mitigation Measures

- The City's Adaptation Measures
- The Private Sector's Actions
- Actions Citizens are Taking
- Creating a Better Future for All
- How can you help? Change Minds
- How can you help? Change Your Lifestyle
- How can you help? Change Systems
- Want to Get Involved?
- Resources
- Thank you!

Long Deck

As the longest of the three presentations, the long slide deck consists of the following slides (new slides are **bolded**):

- Title slide: Climate Change, Action & Mobilization
- IPCC slide
- Climate Change
- CO2 Emissions (Metric Tons per Capita)
- What Have We Accomplished?
- Vancouver Today
- The City's Actions
- The City's Mitigation Measures
- The City's Adaptation Measures

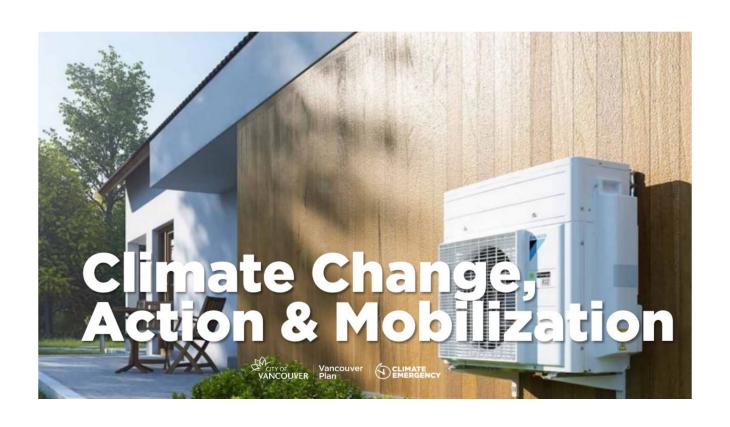
- The Private Sector's Actions
- Actions Citizens are Taking
- Creating a Better Future for All
- How can you help? Change Minds
- How can you help? Change Your Lifestyle
- How can you help? Change Systems
- Want to Get Involved?
- Resources
- Thank you!

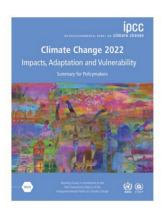
Recommendations for Usage

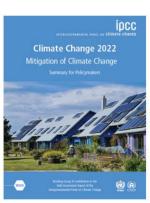
The slide decks can be used for a variety of presentations. Some examples include orientation programs (i.e. the Sustainability Scholars Program), formal engagement or outreach events, informational meetings involving the introduction of a new sustainability-related project or initiative, school or workplace presentations, or as a supplementary set of slides to presentations on climate change or updates to climate change-related policies.

Draft Visuals

Included in the following pages of this report are visuals for the short slide deck. To view or download the original slide decks, please contact the Greenest City Program (greenest.city@vancouver.ca).







The science is clear.

Any further delay in concerted global action will miss a brief and rapidly closing window to secure a livable future.



Vancouver today:

- Emitting more than our fair share of carbon emissions
- Primary polluter is natural gas use in buildings
- Wildfires, heat domes, and floods: climate change is already here
- We are not on track to reach our 50% reduction target
- We have a plan & we all have a role to play

57%
natural gas
use
in buildings

3%
electricity +
NEU
4%
waste

City of Vancouver 2020 Carbon Emissions

Climate Change, Action & Mobilization

The City's actions:

- Approval of moderate income rental projects in walkable, transit-oriented areas
- Expanded transit priority
- Updated EV-readiness standards
- A heat pump rebate program
- Zoning variances
- Updated parking standards
- Updated business license fees to encourage EV charging
- Requirements to reduce carbon pollution from existing buildings and new standards

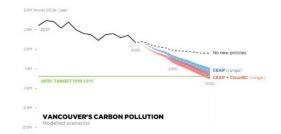


Climate Change, Action & Mobilization

The City's mitigation measures:

Mitigation: avoid the unmanageable

- Climate Emergency Action Plan (CEAP)
- CEAP's Six Big Moves
- Halve carbon emissions by 2030
- Bold but equitable regulatory actions to achieve the change we need to see





Climate Change, Action & Mobilization

The City's adaptation measures:

Adaptation: manage the unavoidable

- Climate Change Adaptation Strategy (2018)
 - + 2020 Progress Update
- 4 focus areas for adaptation:
 - 1. Coastal, river, extreme rainfall flooding
 - 2. Poor air quality
 - 3. More heatwaves
 - 4. Increased intensity/frequency of extreme events
- Actions involve infrastructure improvements, retrofitting buildings, creating green space

Climate Change, Action & Mobilization

The private sector's actions:

- Building EV charging stations in new non-residential buildings, gas stations, parking lots
- Low carbon materials and construction practices
- Retrofitting buildings (heat pumps, etc.)
- Scale up building electrification, renewable gas use, and other zero emissions heating supply



Climate Change, Action & Mobilization

Actions citizens are taking:

- Retrofitting homes
- Switching to EVs or taking alternative forms of transportation – car-sharing, transit, bicycles, walking, etc.
- Sending less waste to the landfill or incinerator
- Using less water
- Taking community action: participating in grant projects, etc.







What are we all working towards?

- Better access to daily needs
- More energy-efficient buildings
- Improved access to affordable, safe, and healthy transportation options
- Stronger green economy
- A resilient city
- An equitable, fair, and sustainable future

Climate Change, Action & Mobilization



CHANGE MINDS:

Get informed and spread the word

CHANGE YOUR LIFESTYLE:

- Change how you heat your home and move around the city:
 - Replace furnaces with electric heat pumps
 - Switch to electric vehicles
 - Cycle, walk, or transit when possible

Climate Change, Action & Mobilization





CHANGE SYSTEMS:

 Help us change the system: participate in engagement processes, share your voice with Council, vote for what matters to you



Learn more and sign up for the Greenest City newsletter here!



Future Opportunities for Research and Material Creation

Future Research & Interview Considerations

Time and capacity-permitting, it may be useful to interview a wider range of cities to understand more opportunities to grow climate literacy and approaches to encouraging climate action. Such interviews may yield additional insight into best practice for communicating climate change adaptation and mitigation processes and outreach. Many of the cities interviewed for this project are implementing strategies for climate literacy that are largely comparable to the City of Vancouver-likely due to geographical, climatic, and economic similarities-and it would be worthwhile speak with cities to potentially approaching climate action and community mobilization differently.

Some examples of other cities to interview could include:

Paris, France
Barcelona, Spain
Amsterdam, The Netherlands

Lisbon, Portugal
Cape Town, South Africa
Buenos Aires, Argentina
Medellín, Colombia

Throughout the completion of this project, messaging around mitigative climate change actions often superseded those associated with climate change adaptation. In interviews, it was noted that mitigation was often an umbrella term for both adaptation and mitigation strategies. As such, disentangling the two interview concepts, asking more questions about adaptation in particular, and presenting clearer dialogue about both would be useful for future research and material development.

For future interviews, it may prove useful to ask specific questions regarding best practices for creating effective climate action materials. While the questions asked for this project touched on this

subject, answers provided by municipalities often focused on policy and outreach instead. It may also be valuable to consider translating the questions into the primary languages spoken by staff in other cities, especially if future interviews include cities in the Global South.

It will also be useful to inquire about the extent to which other municipalities are dealing with a lack of trust in government, along with both public and private institutions. From there, hearing about possible strategies and approaches to increasing trust, both generally and in relation to climate action, could potentially offer some insight into ways the City of Vancouver can adapt its own approach to trust— and relationshipbuilding with the community.

Further researching climate justice within a Canadian and local context would also be invaluable for the production of equitable climate literacy materials. American cities interviewed for this project indicated the significance of incorporating environmental and social justice into their internal and external day-to-day operations. Although the City is already working on a Climate Justice Charter that will be published in December, it is nevertheless important to understand how to properly unite climate literacy materials with ongoing climate justice efforts, both generally and in direct relation to the City's ongoing actions.

Conducting a study into the relationship between health and climate change would also be beneficial to achieving the above recommendation of narratives to connect the dots between climate change, its effects on everyday life, and meaningful actions that can be taken. Some examples of such links highlighting the relationship include active transportation between individual fitness, as well as the health implications of burning natural gas indoors. Depending on the outcomes of such a study, climate literacy materials could emphasize the effects of climate change related extreme weather events on public health. Focusing on how individual and societal health can be negatively impacted by extreme weather events caused by climate change and/or could be positively impacted by certain climate actions may increase interest and response.

Considerations for Future Material Creation

While materials these were being created, feedback was solicited from members of the City of Vancouver's Community Mobilization Working Group as well as local partners in the City's Amplifier Network. General stylistic and content-based best practices highlighted in the interviews were also factored into the development of these materials.

Initial reactions and feedback to initial drafts were largely positive, with most of those present in each meeting praising the visual elements and comprehensive text of each material. When providing feedback, City staff and partners were also asked about the usability of these materials. The majority of the received input suggests that these materials would be useful in internal meetings and external distribution to the wider public. Suggestions for revisions were all considered in the development of the most recent drafts included in this report.

Materials for Different Demographics

The current materials have actions that can be taken by all groups, but many of nevertheless favour homeowners. For future iterations of these or additional materials, it may be useful to create pamphlets, presentations, and posters aimed at one particular demographic like homeowners, renters, and youth (school-age students, etc.). Some possible ideas for audiencespecific revisions to these materials are included in the table found on the following pages:

Homeowners	Change lifestyles: Retrofitting the home—install EV charging, add insulation, electrification of heating systems via heat pumps, etc. Change minds: Speak with neighbours: utilize community social media channels (e.g. 'Vancouver West Enders' on Facebook) Speak with Strata/Council about implementing sustainable buildingwide measures Change systems: Emphasize importance of participating in elections Encourage research into, and provide input on, municipal environmental policies—sign up for the Greenest City Newsletter to get notified about the next opportunity do so Context: Provide information about rebates and other supports available to homeowners that will assist with retrofits Explain the ways that homeowners create carbon pollution and what changes they can make to reduce these emissions
Renters	 Change lifestyles: Reduce heating and hot water demands of your building by turning down the thermostat, taking shorter showers, washing laundry loads in cold water, all of which will reduce carbon pollution if your building/water is being heated by natural gas Active transportation and transit Speak with Strata/Council about taking building-wide climate measures Change systems: Emphasize importance of participating in elections and civic processes (your input and vote matter) Encourage research into, and provide input on, municipal environmental policies—sign up for the Greenest City Newsletter to get notified about the next opportunity do so Speak with neighbours; utilize community social media channels

Renters (cont.)	Context: • Provide information about ways that renters can still contribute to meaningful climate action
Youth	Change lifestyles: Reduce heating and hot water demands of your building by turning down the thermostat and taking shorter showers/loads which will reduce carbon pollution if your building/water is being heated by natural gas Try more climate friendly travel by walking, biking or taking the bus with your friends and family Change systems: Get informed about climate change, including how local weather is expected to be impacted by climate change Encourage students to learn more about environmental policies in their community, city, and country Change minds: Talk to your family about climate change, let them know how you are feeling and how they can take action Context: Provide low-barrier ways for youth to participate Explain climate change in Vancouver in easily understandable terms Emphasize the importance of youth in ongoing and future climate action initiatives

Other Formats to Consider

Other material formats that may warrant future consideration and design mockups include a focus on standalone media (i.e. social media content and traditional media and digital advertisements) geared towards climate education. A few of the interviewed cities touched on the importance of engagement through humour and engaging online content. Creating humorous materials may also be worth considering when drafting future versions.

Depending on the target audience(s), it may also be worthwhile to create materials in particular formats tailored to each one. For example, word searches or colouring activities for young children that include climate change terms. Another possibility would be postcard-sized mailers distributed to City homeowners.

When successful, conversation toolkits also an innovative wav approaching climate literacy. example, Richmond Hill's Climate Change Conversation Toolkit ('A Guide to Talking to People in Your Life About Climate Change') has been widely used in schools, by community groups, and in everyday life by locals looking to share and understand key, localized messages about climate change. It is intended to be modified and copied as needed, in order to facilitate wider climate literacy in the community. Furthermore, it aims to provide answers to 'devil's advocate'

questions about climate change that may be otherwise difficult to answer.

Uniting the unique aspects conversation toolkit, refined messaging material through the literacy recommendations above, with those already present in the work completed for the City's Climate Leaders Program will provide an opportunity to create a more widely accessible document that can be referenced by residents, City staff unaffiliated with the Program, members of community organizations. For example, utilizing a similar format as Richmond Hill with relevant headings will make it easier to filter through and select relevant sections for conversation.

Messaging

While these initial drafts touch on key messaging around outreach traditionally underrepresented or marginalized communities, the development of a nuanced equity lens that goes beyond the key messaging would also be worth considering in the creation and distribution of future materials. There are currently high-level notes about climate justice in the materials-strengthening these notes and adding more specificity about what the City is doing in this area would be beneficial.

Similarly, only high-level notes about climate change adaptation were included in these draft materials; identifying and including additional key messaging as well as priority adaptation related actions would make future iterations of these materials-especially the slide deckmore comprehensive. Each interviewed city had its own approach to connecting these two main branches of climate change response reflective of existing policy and practice; it would worthwhile to closely examine how the messaging from both the Climate Emergency Action Plan and the Climate Change Adaptation Strategy can be united in future literacy materials.

Stylistically, some adjustments may make the messaging clearer to non-City audiences and should be considered when drafting materials—especially those for the public or community partners. A

notable example is referring to the City of Vancouver (or the 'City') in third person, rather than in first person. Furthermore, it is necessary to continue ensuring that literacy materials are written in layman's terms and do not include excessive abbreviations, acronyms, or jargon.

As previously mentioned in the above recommendation on increasing transparency and proactivity, future messages in climate literacy materials would benefit from increased clarity around the City's actions and outcomes of past City efforts.

Visuals

In both feedback sessions, it was noted that incorporating specific images of Vancouver and its ongoing climate action work, alongside images that capture the effects of climate change on the City, would make the materials more engaging. As such, it is highly recommended that graphics on the poster are replaced with Vancouver-specific graphics. noted that the existing graphics on the brochure and slide deck-all customized for the City's existing climate action work-are also suitable. It is therefore suggested that future iterations consider switching out all of the existing graphics with photographs, or finding a suitable combination graphics of and photographs.

Conclusion & Acknowledgements

As many cities noted, community mobilization towards meaningful climate action is ongoing work. The results from the initial best practices literature review, the interviews with the eight municipalities from around the world leading in climate action efforts, and the resultant draft climate literacy materials are all intended to serve as a next step for the City of Vancouver's ongoing climate literacy and community mobilization work with the goal of providing direction for future efforts.

Thank you to the City of Vancouver and the UBC Sustainability Scholars Program for supporting this project, with especial gratitude to my mentors Jennifer Wahl and Alexandra Turnbull for their support and input. Many thanks are also owed to the staff from Portland, Toronto, New York City, Edmonton, Oslo, Copenhagen, Richmond Hill, and Melbourne interviewed for this project. And thank you to the staff at the City of Vancouver who helped connect me with those from other cities—I appreciate all of you calling in so many favours.

Finally, thank you to my family and friends for listening to me talk incessantly about meaningful climate action this summer!

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Appendices

Appendix 1: Definitions

- Active Transportation: Human-powered forms of travel, which includes (among others) walking, cycling, skateboarding, rollerblading, non-mechanized wheel chairing, snowshoeing, skiing, and jogging.
- Adaptation: Managing the unavoidable aspects of climate change.
- Community Climate Action: When citizens recognize the negative effects of climate change on human and non-human lives and attempt to ameliorate its effects through multi-scalar solutions. Individual or community-led climate action could involve civic engagement or lifestyle changes.
- Climate Change: As defined by the United Nations, <u>climate change</u> refers to long-term shifts in temperatures and weather patterns. These shifts may be natural (variations in the solar cycle) or, since the 1800s, primarily driven by human activities like the burning of fossil fuels (coal, oil, and gas).
- Climate Literacy: Having a basic level of understanding of the causes of, impacts of, and solutions to climate change required to make informed decisions when taking actions that can affect the climate or adapt to changing climate.
- Community Mobilization in the City of Vancouver includes efforts that:
 - o lay the foundation for a high level of climate literacy,
 - provide access to City decision processes on climate issues to those interested in climate action,
 - encourage broad and diverse community participation in various climate initiatives, and
 - cultivate a strong and diverse network of climate-focused and climatesupporting relationships.
 - The City hopes to mobilize the community in a way that will support the successful implementation of climate-related goals.
- **Electric Heat Pump**: As defined by BC Hydro, an <u>electric heat pump</u> is an energy-efficient alternative to other types of home heating systems, such as a natural gas furnace or electric baseboards. Heat pumps can provide both efficient heating and cooling.
- Mitigation: Avoiding the unmanageable aspects of climate change.

Appendix 2: Interview Questions

The following ten (10) questions were drafted in preparation for the interviews. In most interviews, all of these questions were asked (with minor variations).

*Definitions for key terms can be found in Appendix 1.

- 1. Qualitatively speaking, how climate concerned is your community? How climate literate is your community?
- 2. What does your City do to improve climate literacy/general education around climate mitigation and adaptation, and climate action more broadly?
- 3. Is your City's role in community mobilization something that you have explored and/or something you are actively working towards? What does the term mean to you?
- 4. What support does your City provide to encourage individual or community-led climate action and leadership?
- 5. What communication and outreach strategies have you implemented to promote individual climate action and/or climate literacy? What kind of campaigns and tactics have been most useful? What kind of messaging do you focus on?
- 6. Building on the previous questions, has your City created specific programs or materials for equity-seeking groups, or those otherwise disproportionately impacted by climate change?
- 7. Does your City view climate adaptation and mitigation separately? Are programs and materials for mitigation/adaptation separate or combined?
- 8. What does your City do to build visible public support for taking bold climate action?
- 9. Does your city have strong formal/informal networks (or orgs/people/businesses) around climate action?
- 10. Is there anything else you would like to share about a City's role in growing climate literacy and supporting community mobilization? Are there any key resources that inform your literacy and mobilization approach (or materials you have developed) that I could take a look at, or that you could share with me?