



Neighbourhood Climate Action Plan

Emerging Directions Engagement Summary Report

January 2024



THE UNIVERSITY OF BRITISH COLUMBIA
Campus + Community Planning

planning.ubc.ca/ncap

Land Acknowledgement

The UBC Vancouver campus is situated on the traditional, ancestral and unceded territory of the xʷməθkʷəy̓əm (Musqueam) people. For millennia, xʷməθkʷəy̓əm have been stewards and caretakers of these lands and have accepted visitors. UBC has been located on these lands for over 100 years, and strives toward building meaningful, reciprocal and mutually beneficial partnerships with xʷməθkʷəy̓əm and learning from their relationship with the land.



sʔi:ɬqəy̓ qeqən by Brent Sparrow Jr., xʷməθkʷəy̓əm | Photo Credit: Paul H. Joseph, UBC Brand and Marketing

Table of Contents

How are we defining the UBC neighbourhoods?	3
Executive Summary	4
Introduction.....	4
Emerging Directions Engagement	5
Overview of What We Heard	5
Next Steps	6
Engagement Approach and Analysis Methodology	7
Engagement Approach.....	7
Who We Reached	8
Feedback Analysis Methodology	9
What We Heard	12
General.....	12
Lived Experiences of Climate Change on Campus	12
New Construction and Existing Buildings	13
Ecology	14
Climate Emergency Preparedness.....	14
Neighbourhood Infrastructure	15
Transportation and Mobility.....	15
Waste, Materials and Consumables	15
Process	16
Appendices	17

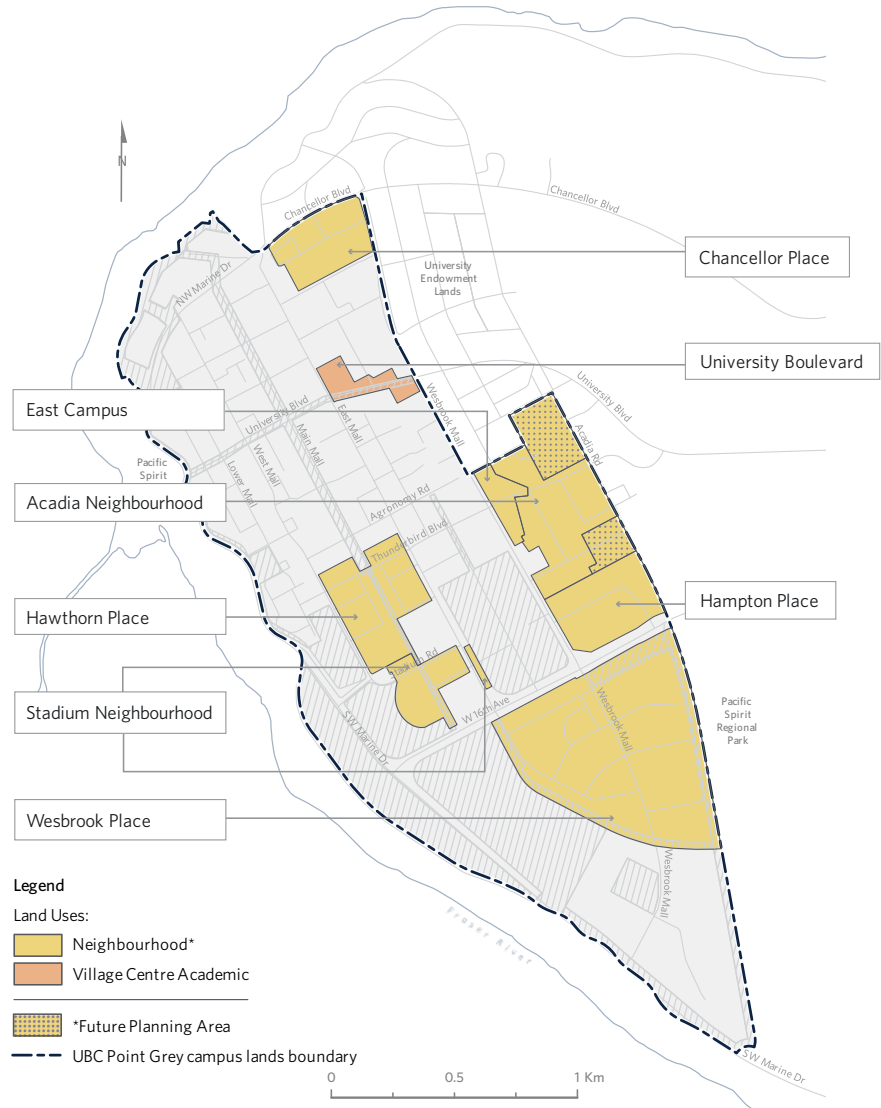
- Credit**
- The engagement activities and findings detailed in this
 - report was designed, implemented and analyzed by
 - UBC Campus + Community Planning Staff.

Cover Photo Credits:
Martin Dee Photography

How are we defining the UBC neighbourhoods?

The Neighbourhood Climate Action Plan covers UBC's existing neighbourhoods¹: Hampton Place, Hawthorn Place, Wesbrook Place, Chancellor Place, East Campus, as well as the future Stadium and Acadia neighbourhoods.

The rest of the campus (academic core) is covered by the UBC Climate Action Plan 2030², which was launched in 2021.



Land use boundaries are approximate. Precise boundaries to be confirmed in applicable Campus Plan and/or Neighbourhood Plan.

¹ Residential rental buildings in the University Boulevard area, such as *Focal* and *Central*, are also included in the NCAP scope.

² View the UBC Climate Action Plan 2030 at planning.ubc.ca/cap2030

Executive Summary

Introduction

The university is engaging the campus community on the Neighbourhood Climate Action Plan (NCAP), which will provide the pathway to a net-zero, climate resilient community in the university neighbourhoods.

Public engagement for NCAP launched in October 2023 to gather feedback on the plan's Emerging Directions. The feedback will be used to inform the draft goals, targets, and actions needed to achieve greenhouse gas (GHG) emissions reductions and climate resiliency in UBC's neighbourhoods.

This report provides an overview of the first round of engagement that took place October 17th to November 3rd, 2023, and also includes the engagement approach and summary of community feedback. Campus and Community Planning reports back to the community on what was heard during engagement to ensure transparency through the NCAP process.

About NCAP and Climate Action Planning at UBC

In 2021, UBC launched Climate Action Plan 2030, which charts a course to reach net zero emissions for the academic campus. NCAP will do the same for residential neighbourhoods as well as plan for adaptation to our already changing climate.

The work to develop NCAP builds on the existing Community Energy and Emissions Plan, which was introduced in 2013 and has guided climate action initiatives in residential neighborhoods. With the increased frequency of intense climate events, there is a renewed and urgent focus on climate action, and a more comprehensive climate action plan that meets the unique conditions of the neighbourhoods is needed. NCAP will provide policy goals, targets, and practical actions in key climate areas (see image on the right).



Emerging Directions Engagement

Emerging Directions are draft goals and targets in key climate action areas and includes the actions needed to achieve those goals and targets. These were developed through targeted engagement with the University Neighbourhoods' Association (UNA), UBC Properties Trust, community members, and key stakeholders, and staff and faculty from across the campus who have the technical expertise to help inform the plan's emerging directions.

Feedback from this targeted engagement helped to develop the draft Emerging Directions, which were then presented to the campus community for feedback. The focus for this round of engagement was to determine community priorities, barriers and opportunities for climate action in UBC neighbourhoods and understand potential impacts of climate change to different groups.

Alongside public engagement, targeted workshops were held with staff, faculty and external subject-matter experts who have the expertise to inform the plan's emerging directions. These targeted workshops were held with faculty representing a range of academic disciplines, the University Neighborhood Association (UNA), UBC Properties Trust and staff from Campus and Community and Planning, UBC Energy and Water Services, UBC Safety and Risk Services, the City of Vancouver and others.

At this stage, the goals, targets, and actions presented are not finalized. Detailed evaluation and prioritization of actions, as well as refinement of targets, will occur after public feedback has been incorporated and will be strongly guided by the NCAP Guiding Principles. (See diagram above.)



Overview of What We Heard

Feedback was focused specifically around the six scope areas of NCAP. The main themes that we heard during the NCAP public engagement are summarized below, with more detailed information in the body of this report and the Appendices included at the end of this report.

Along with broad support for the NCAP development and implementation process, we heard four cross-cutting themes across all six NCAP scope areas: (continued on the next page.)

“The [environmental] problem keeps happening and keeps getting worse! Oneness and connectedness make people feel more inspired to take action.”

- Workshop participant

- **Community members want to see themselves and their needs represented in NCAP:** We heard that UBC residents want to better understand how NCAP will be implemented at the neighbourhood scale and how it will influence daily life on campus (e.g., how are we improving thermal comforts in buildings and where will we see additional tree canopy for shading and cooling?)
- **Timing and ambition of NCAP needs to match the urgency of the climate crisis:** We heard a mix of support and concern about holding NCAP accountable to more ambitious commitments that match the urgency behind residents' lived experiences of changing climate conditions (e.g., faster timelines, specific actions, identify roles and responsibility for each action).
- **Feelings of climate anxiety and need for community support hubs:** We heard strong concerns about changing climate conditions in UBC neighbourhoods and a desire for clear, centralized resources to understand the climate action work being done in neighbourhoods and what to do and where to go during climate emergencies.
- **Concern about barriers to climate action:** We heard community concerns about the process and financial barriers to taking climate action (e.g., purchasing heat pumps is expensive, understanding new recycling guidelines is challenging for newcomers).

Next Steps

Community feedback, alongside ongoing technical work, will inform the final NCAP goals, targets and actions which will be presented to the community for further feedback in early 2024. Scoping for the Plan's implementation is also currently underway to establish a timeline of short, medium, and long-term actions and resourcing requirements to achieve the overarching goals for GHG emission reductions and climate resiliency in the neighborhoods, as well as a plan for ongoing monitoring and reporting.

The final NCAP will go to the UBC Board of Governors for endorsement. NCAP will be complete before UBC adds new buildings enabled by the amended Land Use Plan. It will then shape UBC's Land Use Plan implementation, as well as other initiatives like the Residential Environmental Assessment Program (REAP)³ and the Integrated Rainwater Management Plan⁴.

NCAP goals, targets, and actions will grow and change with time as implementation and emerging thinking evolves.

³ For more information on the Residential Environmental Assessment Program, visit planning.ubc.ca/gbap/reap

⁴ Renamed from the Integrated Stormwater Management Plan (2017). For more information on the ISMP, visit planning.ubc.ca/sustainability/ismp

Engagement Approach and Analysis Methodology

Engagement Approach

Public engagement is critical to understanding community needs and interests that will help shape NCAP priorities and pathways.

The NCAP engagement process is anchored by C+CP's Engagement Charter⁵ and builds upon the successes of the engagement process for UBC's Campus Vision 2050. Transparency, inclusivity, equity, and flexibility are core principles for the engagement process. This includes emphasizing targeted engagement with community groups and providing a diversity of ways to engage.

The NCAP process is designed to support comprehensive and diverse engagement and intentionally seeks to lower barriers to participation. This includes building collaborative relationships with groups in the neighbourhoods, as well as meeting the community where they are by attending scheduled meetings and joining community events. Other approaches include, but are not limited to:

- providing honoraria to support participation of students in workshops,
- offering both in-person and online options to participate,
- offering childcare at evening and weekend events, and
- translating informational materials and having translators at certain events to reach broader ethnocultural communities in the neighbourhoods.

How We Reached People

We had a total of **833 engagement touchpoints** through several types of engagement activities including an online survey, an open house, pop-ups held throughout the neighbourhoods, community conversations, workshops, walking tours and roadshow presentations. For more information about who we reached see page eight of this report, and for more information about all engagement activities, see Appendix I.

⁵ Download the Engagement Charter at planning.ubc.ca/engagement-principles

Who We Reached

Engagement Activity Summary (October 17th - November 3rd, 2023)*



ONLINE SURVEY

323 responses
Oct 17 - Nov 3



OPEN HOUSE

8 participants
Oct 19, Wesbrook CC



POP-UPS

111 participants
Oct 21, Oct 23, Oct 26



COMMUNITY CONVERSATIONS

64 participants
7 events
Oct 16 - Nov 1



PUBLIC WORKSHOPS

39 participants
Oct 25, Oct 28, Oct 31



TARGETED WORKSHOPS

48 participants
Oct 3, Oct 18, Oct 23



WALKING TOURS

22 participants
Aug 31, Oct 20



ROADSHOWS

218 participants
6 events
Oct 11 - Oct 25

*With the exception of some events which took place outside of this time range but included the same content.

In an effort to hear from diverse voices, community conversations were held with seniors, youth, and newcomers. We also presented at meetings hosted by the local Parent Advisory Councils, the AMS (UBC student government), and the Faculty Association.

For a detailed look at our engagement activities and who we met with, see Appendix I.

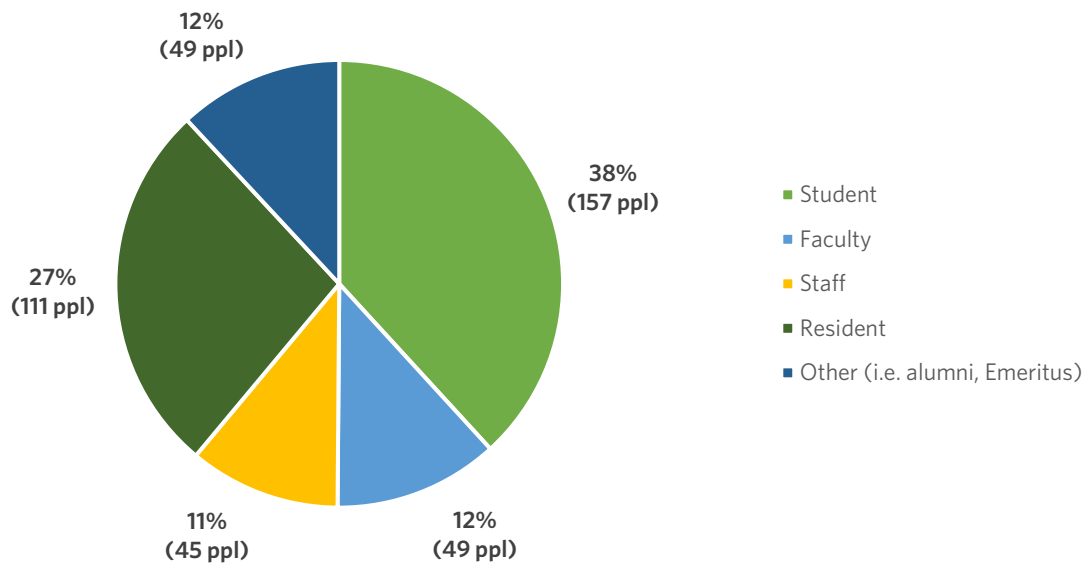
Feedback Analysis Methodology

Following engagement, UBC staff reviewed and analyzed all comments, questions, ideas and notes generated during the public engagement period. This includes surveys, workshops, roadshows, community conversations, pop-ups, email submissions and technical expert meetings.

Staff used a qualitative theming analysis methodology, which involved grouping the feedback collected into themes and subthemes according to common topics, ideas and patterns that came up repeatedly. Frequently heard themes were then summarized. Quantitative data from the online and printed surveys were aggregated directly through survey software and in Microsoft Excel.

Survey Participant Demographics

The affiliation of online survey participation is summarized below:



Please note: Since many survey respondents have multiple affiliations with UBC, this question was a 'select all that apply' multiple choice question. As a result, 411 "affiliations" are captured in the above figure, while there were 323 survey respondents. This represents a certain amount of overlap between affiliation groups. For example, 20 people are both faculty and residents, and 19 people are students and residents. These individuals have been double counted in each category.

What Engagement Looked Like



Group discussion on NCAP scope areas at the Staff Workshop
Photo Credit: Madeleine Zammar



Group discussion on NCAP scope areas at Public Workshop #2
Photo Credit: Saya Kawabe



Pop-Up Event outside Wesbrook Community Centre
Photo Credit: Saya Kawabe

Communications Outreach Strategy

The following communication tactics were used to raise awareness about the opportunities to engage and provide feedback for NCAP's Emerging Directions.

- Social media campaigns
- Communications toolkits for campus partners
- Campus and Community Planning Newsletter
- University Neighbourhood Association Newsletter
- School PAC Newsletters
- Posters around the neighbourhoods and buildings
- Targeted outreach to neighbourhood groups



*“Draw Your Dream Neighbourhood” activity at the
UNA Pre-Teen Youth Community Conversation
Photo Credit: Zainab Sayedain*



*Group photo at the UNA Newcomers Support Group
Community Conversation
Photo Credit: UBC Campus + Community Planning*



*Kerry Shaw,
Senior Neighbourhood Climate Action Planner,
presenting at Public Workshop #2
Photo Credit: Saya Kawabe*



*Group photo at the Tapestry Seniors Living
Community Conversation
Photo Credit: Madeleine Zammar*

What We Heard

Feedback was focused specifically around the six scope areas of NCAP. The themes that we heard related to each scope area and about the NCAP development and engagement process are included below. Please refer to Appendix I and II for more detailed themes and sentiments heard during engagement in our online survey, workshops and community conversations.

General

- Support for the NCAP Emerging Directions and appreciation for the framing and specific categories of the six scope areas.
- Strong sentiment that the final NCAP will need more specific language surrounding actions, timelines, implementation and relationship to other UBC policies and initiatives (i.e., definitions of terms, who is responsible for specific actions, how is it being funded, relationship to the Land Use Plan and Housing Action Plan and housing affordability).
- Strong desire to see more ambitious and accelerated timelines that match the urgency behind the climate crisis and move beyond “making a plan to make a plan.”
- Desire to see more financial incentives replace “encouragement” to make NCAP more effective at creating behaviour change (e.g., cost-effective transportation options).
- Support for clear, centralized resources to understand climate action work being done in neighbourhoods (e.g., climate leadership opportunities, recycling requirements in individual buildings, climate emergency instructions etc.).
- Concerns about accountability, reporting progress and how the final NCAP will respond and evolve over time to build social resiliency through an adaptive management approach.
- Desire to understand how NCAP fits into the local, provincial, federal policy context – what assumptions are being made to achieve goals, targets, and actions and whether there are any competing forces.

Lived Experiences of Climate Change on Campus

- Top climate change experiences include: heat waves causing drought and low air quality, changes in extreme weather, degradation of local biodiversity and loss of trees and poor building quality exacerbating cold in winter and heat in summer.
- Concern for increasing temperatures and extreme weather events and how they will impact future generations.
- Sense of urgency to take climate action – especially from experiences of heat wave impacts and the lack of emergency infrastructure.
- Desire for more leadership and involvement opportunities, alongside growing awareness of climate change and the opportunities to support sustainability at UBC.

New Construction and Existing Buildings

New Construction

- Strong support for goals, targets and actions surrounding the cooling of buildings with low carbon energy sources and that avoid electricity load management issues.
- Desire to see the need for new development balanced with forest and green space preservation.
- Observation that housing affordability considerations for students, faculty and staff are missing.
- Concern about the costs of implementing the final Plan will fall on residents.
- Desire for more information regarding Residential Environmental Assessment Program (REAP) and the accountability mechanisms for holding building design and construction accountable to REAP.

Existing Buildings

- Desire for more specific details (i.e., energy sources, targets, materials, environmental impacts etc.) and why or why not timelines and targets can be more ambitious.
- Mixed interest and concern about accessibility and costs of new cooling systems and energy retrofits in older buildings – especially for vulnerable populations (e.g., elderly).
- To feel supported when keeping the temperature comfortable in their homes, residents expressed interest in: accessible, affordable options for cooling in the summer and heating in the winter, rebates and financial incentives, and more information about what cooling upgrades and retrofits entail and what they cost.

Embodied Carbon

- Support for this scope area considering the emissions produced from a new or existing building's entire life cycle, and a desire for these life cycle assessments to be completed early in neighbourhood planning processes.
- Desire to see more ambitious targets articulated in the final NCAP.
- Concern that the goals of this scope area seem to be in opposition to the large amount of planned new development at UBC through Campus Vision 2050.

Ecology

- Strong support for NCAP's goals surrounding climate resilient soils and plantings, native species and Indigenous plants, and nature focused community spaces (i.e., food gardens).
- Desire for more information about how Musqueam feedback and values are being incorporated into NCAP's development and implementation (i.e., Musqueam community programming and stewardship opportunities on UBC neighbourhood land).
- Support for implementing functional and natural landscapes over manicured landscapes to encourage coexisting with nature on campus.
- Sentiment that the current Emerging Directions language is too vague to effectively protect and restore campus biodiversity and ecosystems.
- Support for natural features that help residents feel protected from climate change impacts including: trees and understorey plants, urban green spaces for community use (i.e., gardens, walkways), forests and extensively treed areas, and tree canopy for shade and cooling.

Climate Emergency Preparedness

- Desire for clear and accessible pre, during, and post-emergency plans, resources, and education to prepare for climate disasters (e.g., rain and snowstorms, heatwaves which will increase with the prevalence of climate change).
- Strong, broad support for this scope area and a community-based approach that increases social resilience at the micro-community scale to enhance connection, trust, agency, accountability, knowledge-sharing, and sustainable practices.
- Support for low carbon cooling and emergency cooling spaces.
- Strong desire to use the preservation of green space, nature-based solutions and ecosystem thinking to enhance the climate resilience of the neighbourhoods (i.e., tree canopy for shade).
- Concern about fully understanding the future climate threats and infrastructure needs based on proposed UBC neighbourhood population growth, alongside a desire for all new and existing residential buildings to be fully resilient to temperature and air quality changes as soon as possible.
- Increase public spaces for the community to gather and connect during climate emergency events.
- To feel better prepared for climate emergencies, residents want: community information and support hubs, connection with neighbours and community events that enable support during emergencies, and public education campaigns (i.e., how do you calculate your own carbon footprint).

Neighbourhood Infrastructure

- Support for expanded stormwater infrastructure (i.e., recycling rainwater, drainage) and improved energy infrastructure (i.e., solar panels, EV charging).
- Desire for more readily available information about existing neighbourhood infrastructure and planned future upgrades (e.g., building plans, energy use, water features, and traffic management).
- Desire to see NCAP consider the long-term impacts of population growth on infrastructure needs and opportunities for resiliency.
- Desire for the final NCAP to emphasize efficient and mindful resource use at both the individual and infrastructure scale to enhance the use of current resources rather than creating all new.

Transportation and Mobility

- Strong support for goals, targets, and actions regarding the expansion of bike infrastructure and programs (e.g., bikeshare, lanes, locks, parkades).
- The 68-bus route is a convenient method to get around campus, but in need of improved frequency and options for within-campus transit.
- Desire for safe and accessible infrastructure for active transportation methods (e.g., clearer signage, lighting, walkable paths) and more frequent, reliable, and less crowded public transit.
- Desire for the plan to incentivize sustainable transportation and de-emphasize car use and related infrastructure (i.e., electric vehicle chargers).
- Concerns for accountability and enforceability and faster implementation.
- Desire for the plan to acknowledge its dependency on public transit solutions that are beyond UBC's control as well as other uncertainties – suggestion to diversify transit solution options.

Waste, Materials and Consumables

- Desire for consistent messaging between buildings, public and private infrastructure, about waste management and waste sorting in particular.
- Desire for an expansion of waste diversion services (e.g., Green Depot, provision of recycling bins at the household level).
- Desire for an expansion of waste reduction initiatives.
- Clarify governance and accountability plans for achieving targets
- Strong support for the expansion of tool-sharing programs, second-hand use of items, and repair facilities (e.g., donation bins, swap shelves).
- Support for UBC's waste sorting standards and desire to be implemented UBC-wide.
- While the plan emphasizes repair and reuse, there are currently very limited public facilities to do so. Suggestion to reduce barriers to participation.
- Suggestion to reduce burden of waste sorting and recycling and make it a more pleasant experience – waste sorting spaces are often unappealing and inaccessible.

Process

- Appreciation for NCAP Workshops and involving community members in the development process.
- Trust is crucial for getting community input and for the overall success of the NCAP.
- Some concern and distrust in the implementation and governance of NCAP (i.e., in tension with the LUP (land use plan), “feels like greenwashing”).
- NCAP should be flexible to future climate conditions and transparent in its implementation – desire for an update responding to the feedback received during NCAP Emerging Directions engagement.
- Desire for NCAP to expand on equity, diversity, and inclusion in taking climate action (e.g., more language translations).
- Opportunity to improve NCAP through knowledge sharing with UBC faculty and experts.

“We must tackle invasive species or colonial ecological frameworks while increasing Indigenous plant life.”

- Workshop participant



Appendices

Table of Contents: Appendices

Appendix I: Engagement Stakeholders and Activities Summary	19
Who We Reached?	20
How We Reached People	21
Appendix 2: Detailed Survey Results	23
Section 1: Experience with Changing Climate Conditions.....	24
Section 2: New Construction & Existing Buildings	26
Section 3: Ecology	33
Section 4: Climate Change Preparedness	36
Section 5: Neighbourhood Infrastructure.....	39
Section 6: Transportation & Mobility.....	41
Section 7: Waste, Materials, & Consumables	44
Section 8: General Feedback	46
Appendix III: Detailed Engagement Takeaways	48
Public and Targeted Workshops.....	49
Community Conversations	52
Appendix IV: Display Boards.....	54

Appendix I

Engagement Stakeholders and Activities Summary

Engagement Stakeholders and Activities Summary

Who We Reached?

Advisory Councils and Committees

- University Neighbourhoods Association (UNA) Board
- Alma Mater Society (AMS) Council
- AMS Annual General Meeting
- Norma Rose Elementary Parent Advisory Council
- Faculty Association General Meeting
- University Hill Elementary Parent Advisory Council
- University Hill Secondary Parent Advisory Council

Community Groups

- Tapestry Seniors Living
- UNA Newcomers Support Group
- UNA Youth Leadership Group
- UNA Pre-Teen Leadership Group
- University Communities for Sustainable Development (UCSD)
- Environmental Alliance at University Hill Secondary School
- Group of UBC students who are neighbourhood residents

Thank you from the NCAP Team

We would like to thank everyone who participated in the Emerging Directions engagement for the NCAP. Your perspectives, ideas and concerns have been critical to the process, and we are committed to ensuring this feedback is included in the development of the NCAP.

How We Reached People

Activities	Description
Online Survey	The online survey allowed respondents to provide feedback on NCAP's goals, actions, and targets, as well as provide insights about the barriers and opportunities for climate action within the UBC neighbourhoods.
Public Workshops	The public workshops were a long format event (two hours) comprised of a presentation sharing an overview of NCAP, followed by small group discussions to provide feedback. One of the public workshops also included Mandarin translation.
Targeted Workshops	Targeted workshops were a long format event (two hours) comprised of a presentation sharing an overview of NCAP, followed by group discussions to provide feedback.
Community Conversations	Small to medium group sessions (one to two hours) with various neighbourhood community groups, comprised of a presentation and in-depth facilitated discussion.
Pop-Ups	Pop-ups were held at various high traffic areas in UBC neighbourhood areas, to learn about NCAP and provide feedback.
Roadshows	A presentation and short question and answer period during prescheduled meetings with community groups.
Open Houses	A drop-in event with display boards at the Wesbrook Community Centre to learn more, ask questions, and provide feedback on NCAP, as well as connect with the project team.

Walking Tours	A 90-minute guided tour of the Wesbrook neighbourhood, showcasing current and future strategies pursued through NCAP to reduce greenhouse gas emissions and prepare for the impacts of a changing climate. One walking tour took place before the engagement period but was an opportunity to share information and promote upcoming NCAP engagement.
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Appendix II

Detailed Survey Results

Detailed Survey Results

This section outlines what we heard in the UBC Neighbourhood Climate Action Plan online survey that was open online from October 17th, 2023 to November 3rd, 2023.

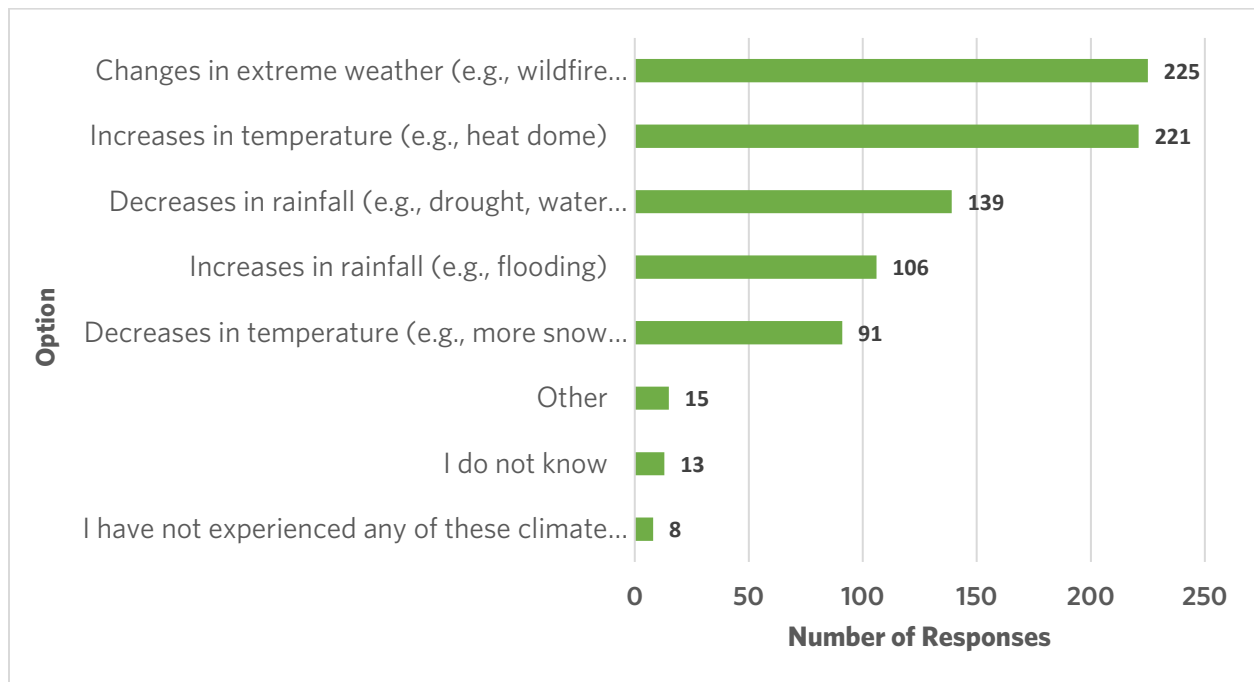
Both qualitative and quantitative feedback was collected through the online survey. The quantitative feedback is summarized below in charts and visualizations. This data was collected through multiple choice and Likert scale questions. Some questions had the option to “select all that apply.”

The qualitative verbatim responses collected were reviewed and themed according to the sentiment of each comment. **Top themes for open-ended survey questions are highlighted in the tables throughout this Appendix.**

We collected and analyzed the most frequent comments, which contributed to the key takeaways in *What We Heard* (pg. 12).

Section 1: Experience with Changing Climate Conditions

Q2. While living at UBC or in Vancouver, what impacts of climate change have you felt the most? (Select all that apply)



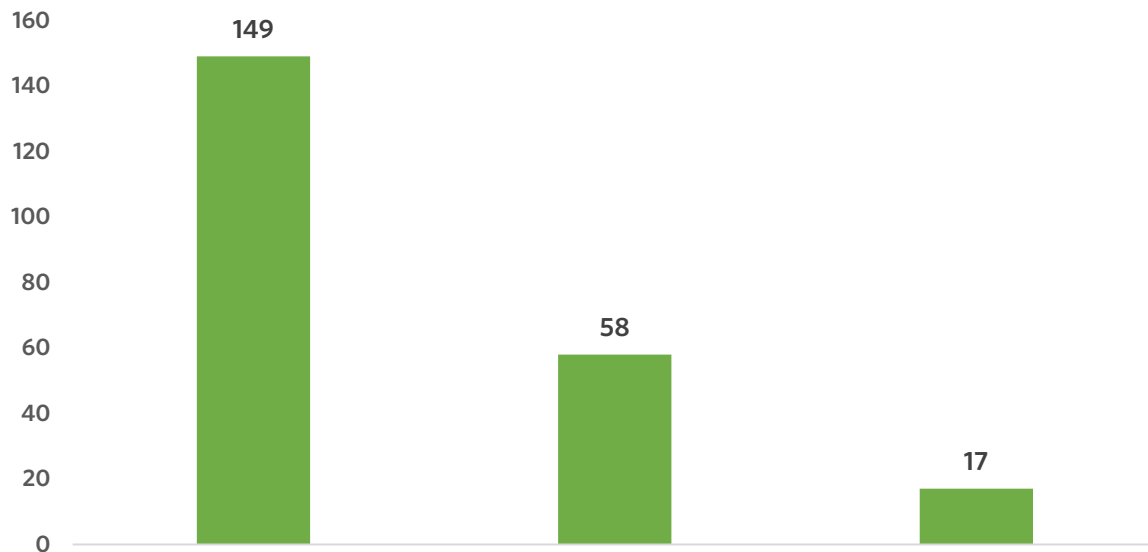
Q3. Anything else to add about your experience with recent climate change impacts? (optional)

Comment	Frequency Count
Heat waves causing drought and low air quality	11
Changes in extreme weather	7
Degradation of local biodiversity and loss of trees	7
Poor building quality exacerbating cold in winter and heat in summer	5
Food scarcity and insecurity	3
Fungus and pest infestations	2
Additional stress and negative mental health impacts	2
Main problem is extractive industries destroying the environment	1
Skeptical changes in weather are due to climate change	1
Focused on mixed energy sources	1
Air quality impacts from construction	1
Longer seasons	1
Wildfires and smoke	1
Need bird friendly glass in new buildings	1
Desire for clarification about the survey question	1
Reduction of insects	1
High winds	1
Decrease in climate variability	1
Lack of communication for navigating climate emergency planning	1
Have not lived here long enough to know	1
Grand Total	50

Section 2: New Construction & Existing Buildings

New Construction

Q4. What do you think about the New Construction Emerging Directions?



Q5A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for New Construction? (optional)

Comment	Frequency Count
Balance the needs of new development with forest and green space preservation	8
More ambitious timelines to match the urgency of climate change	6
Consider housing affordability for faculty and students	6
More details about funding mechanisms and cost analyses	4
Language too vague about when net zero will be achieved	4
Clearer timelines with interim goals to hold us accountable	3
Density caps that ensure enough community amenities for residents	3
NCAP process should be completed before the land use plan process	2
More details about materials and resources used for building out electricity	2
Concern about greenwashing	2
Concern about building any new buildings in UBC neighbourhoods	2
No more concrete towers at UBC	1

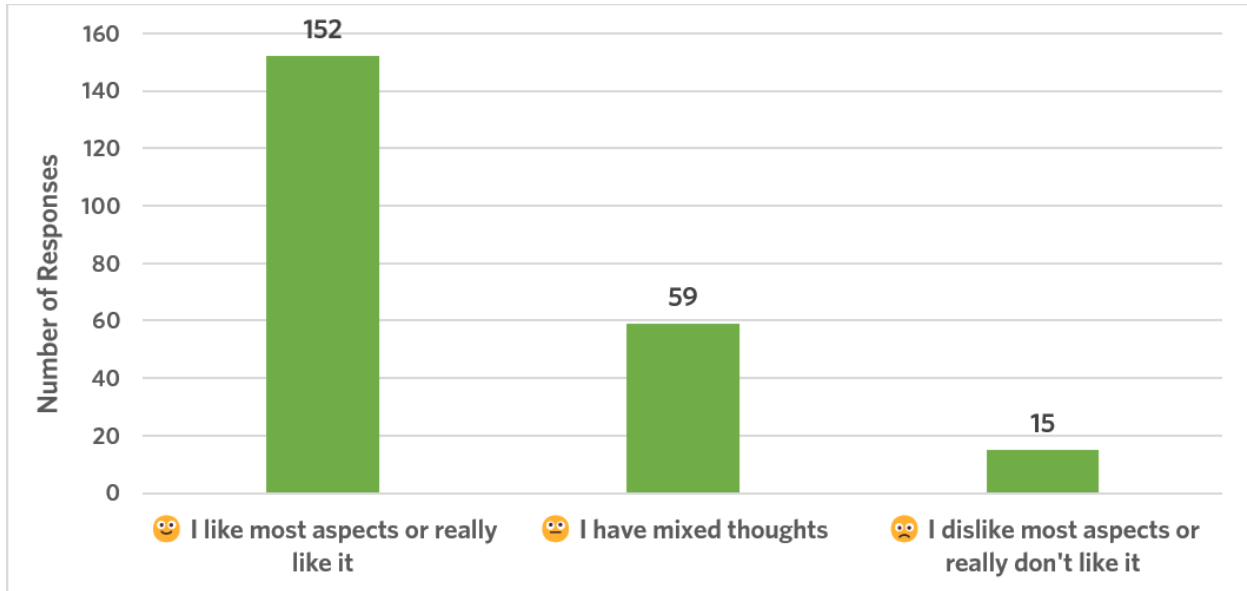
Move towards low carbon buildings more quickly	1
Stronger regulations for habitat protection	1
Concern that <i>Evo/ve</i> was built poorly	1
Acknowledge this Plan only mitigates portion of all GHG emissions	1
Expand Plan to include the University Endowment Lands	1
Push farther past Metro Vancouver targets with carbon cost offsetting	1
High efficiency water use target	1
Make new construction easier to address the regional need for more housing	1
More specificity about building climate resilience for vulnerable people	1
Grand Total	52

Q5B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for New Construction? (optional)

Comment	Frequency Count
Support for low carbon buildings and energy sources	7
Support for cooling targets	5
Plan has a clear direction and requirements	3
Need to include more specifics (i.e., thermal insulation, beautiful architecture)	3
Interest in LEED/Passive House, and support for holistic solutions through programs	3
Curiosity about developer opinions and holding them accountable	2
Include rainwater collection for toilet flushing	1
Support for focus on electricity	1
Support for protecting the environment	1
Concern about electricity shutdowns in winter	1
2025 is too far in the future - need to accelerate timelines	1
General support	1
Concern about building-level metering leading to more energy use	1
Passive house buildings needed for students too	1
Interest in wood frame requirements	1
Grand Total	32

Existing Buildings

Q6. What do you think about the Existing Buildings Emerging Directions?



Q7A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Existing Buildings? (optional)

Comment	Frequency Count
Accelerate timelines and make targets more ambitious	14
Concern about costs and funding existing building retrofits and cooling equipment	7
More specifics around actions to achieve thermal comfort	6
Need stronger language to articulate goals (i.e., requirements)	3
Interest in specifics about types of climate friendly building retrofits	2
Consider existing residents when retrofitting existing buildings	2
Critical about switching from natural gas to electric because of uncertain impacts	2
Introduce energy saving measures (i.e., turn off field lights and irrigation systems at night)	1
Include embodied carbon targets	1
Consider housing affordability	1
Phase out all natural gas appliances	1
Concern about downstream impacts of rubber / turf pollution	1
Require EV charging stations in all UBC buildings	1
Building shorter buildings in the future	1
Sentiment that NCAP should be completed before the land use plan	1
Consider tree canopy improvements as well	1

High performance building design is no longer sufficient given the changing climate	1
Requires more education and discussion with neighbourhood residents	1
Feeling connected to the community	1
Also consider housing affordability	1
Support for gas stoves and fireplaces	1
General concern	1
Grand Total	51

Q7B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Existing Buildings? (optional)

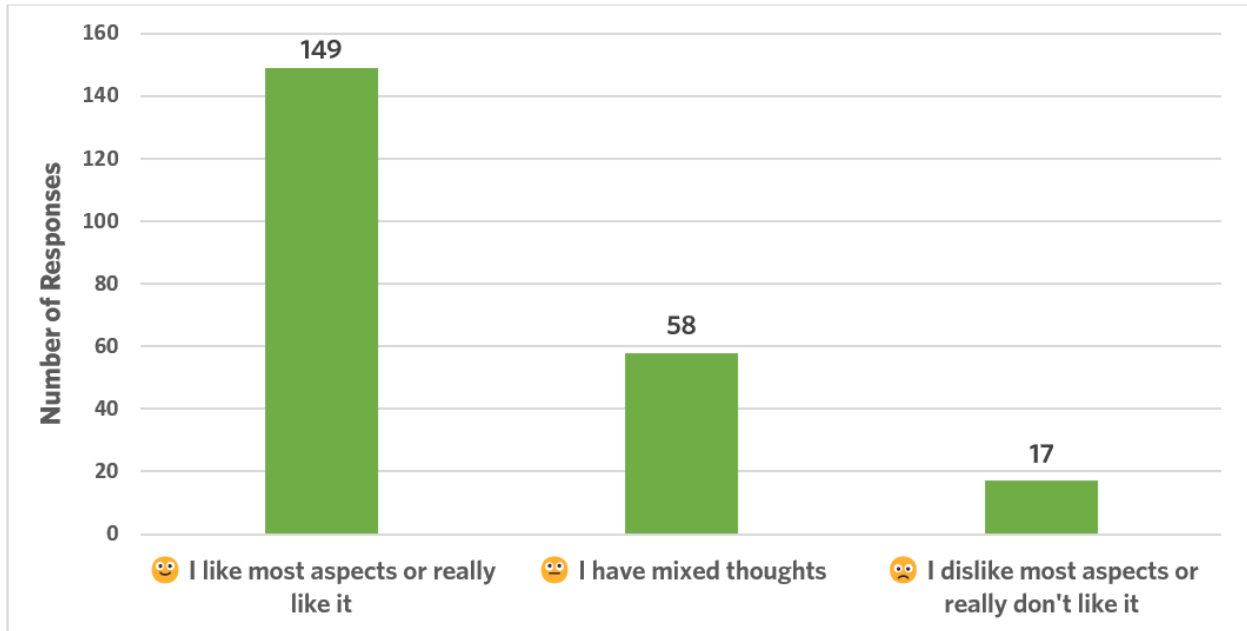
Comment	Frequency Count
Climate resilient retrofits on older buildings (i.e., heritage buildings)	5
Desire for more specific details (i.e., energy sources, targets, materials, environmental impacts etc.)	5
Improving thermal comfort (i.e., insulating buildings)	3
Consider existing residents when retrofitting existing buildings	2
Support for replacing gas stoves	2
Concern about costs and funding existing building retrofits	2
Accelerate timelines	2
Indoor air quality improvements	1
Specifically include heat pumps as a priority	1
Rainwater collection should also be considered	1
Consider effects of wildfire smoke on carpets	1
Support for district energy use	1
Include specifics about installing EV chargers	1
Ability for individuals to control lights in a building	1
General support for ambition of the Plan	1
Grand Total	29

Q8. What do you need to feel supported when trying to keep the temperature comfortable in your home (I.e., additional information about cooling upgrades)? (optional)

Comment	Frequency Count
Accessible, affordable options for cooling in the summer and heating in the winter	15
Rebates and financial incentives	8
More information about what cooling upgrades and retrofits actually mean and what they cost	6
Building construction that encourages indoor ventilation and improved air quality	4
Institutionally owned retrofit programs that are not dependent on individuals / residents	4
Heat pumps	3
Solutions for renters	3
Methods for individuals to control and monitor indoor temperature and humidity	3
Accelerate timelines	2
Window and exterior building shades	2
Consider existing residents when retrofitting existing buildings	1
Specific details about timelines, targets and holding the Plan accountable	1
Enable residents to dry laundry on balconies	1
Strata council refusing heat pumps because of noise concerns	1
Window and door bug screens	1
Does not understand the question	1
Neighbourhood cooling centers	1
Consider the whole system: materials, placement and maintenance	1
Already adapting well	1
Grand Total	59

Embodied Carbon

Q9. What do you think about the Embodied Carbon Emerging Directions?



Q10A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Embodied Carbon? (optional)

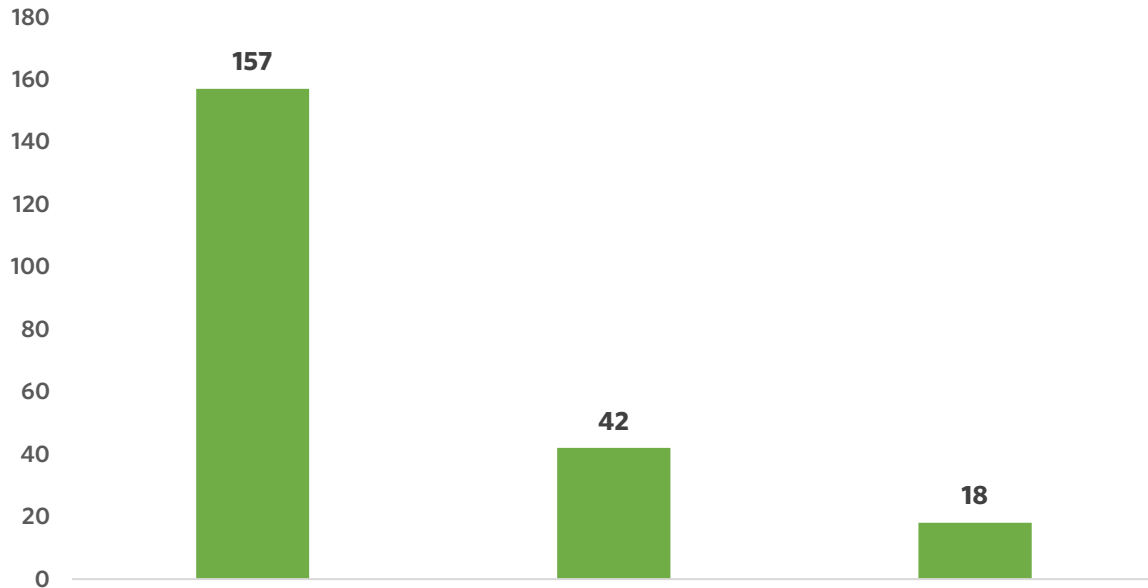
Comment	Frequency Count
Accelerate timelines and articulate more ambitious targets	13
Seems in opposition to the large amount of planned new development at UBC	6
Skepticism in the effectiveness of the scope area (i.e., feels like greenwashing)	3
Sentiment that NCAP should be approved before the land use plan	2
Desire for more specifics about meaning of embodied carbon and alternatives	2
Concern about UBC bias in embodied carbon calculations and regulations (i.e., REAP not impartial)	2
Protect campus trees and biodiversity	2
Move towards more mass timber buildings	2
Too much jargon	1
Concern about embodied carbon in concrete buildings	1
Use higher quality building materials	1
Concern about accountability and implementation of this scope area	1
Consider housing affordability impacts	1
Grand Total	37

Q10B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Embodied Carbon? (optional)

Comment	Frequency Count
Support for considering entire new / existing building life cycle	5
Accelerate timelines and articulate clearer targets	3
General support for goals	3
Support for scope area monitoring and reporting	2
Question our overall need for campus growth	1
Also consider the carbon footprint of individuals	1
Grand Total	15

Section 3: Ecology

Q11. What do you think about the Ecology Emerging Directions?



Q12A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Ecology? (optional)

Comment	Frequency Count
Language is too vague and needs specific targets to be enforceable	7
Prioritize preserving the existing urban forest and green spaces	7
Leverage green, open space for community uses (i.e., community gardens)	3
Concern about amount of open space per hectare in the land use plan for residents	3
Accelerate timelines to protect ecosystems	3
Concern about treatment of wildlife because of development (i.e., eagle's nest coning)	3
Include understorey enhancements and species habitat in addition to tree canopy	3
Desire for tree canopy targets	2
Seek expert opinions to ensure the Plan protects biodiversity	2
Concern about future construction and degradation of green space	2
Replace grass with more naturalized, non-invasive ground cover	1
Consider native pollinators	1

Sentiment that the NCAP should be completed before the land use plan	1
Include low maintenance landscapes	1
Priority should be to increase housing supply and density	1
Concern about carbon emissions due to commuting to campus	1
Consider rainwater runoff and pollution issues downstream	1
Skepticism about holding development accountable to REAP	1
Skepticism about building climate resiliency in neighbourhoods due to density of buildings	1
Stronger commitment to engaging with Musqueam	1
Waste management and infrastructure upgrades must happen first	1
Targets should be per capita to account for population growth in neighbourhoods	1
Clarify how the Farm will be involved	1
Consider human wildlife conflict in urban green spaces	1
Consider an ecosystem-first approach that requires building around natural assets	1
Grand Total	50

Q12B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Ecology? (optional)

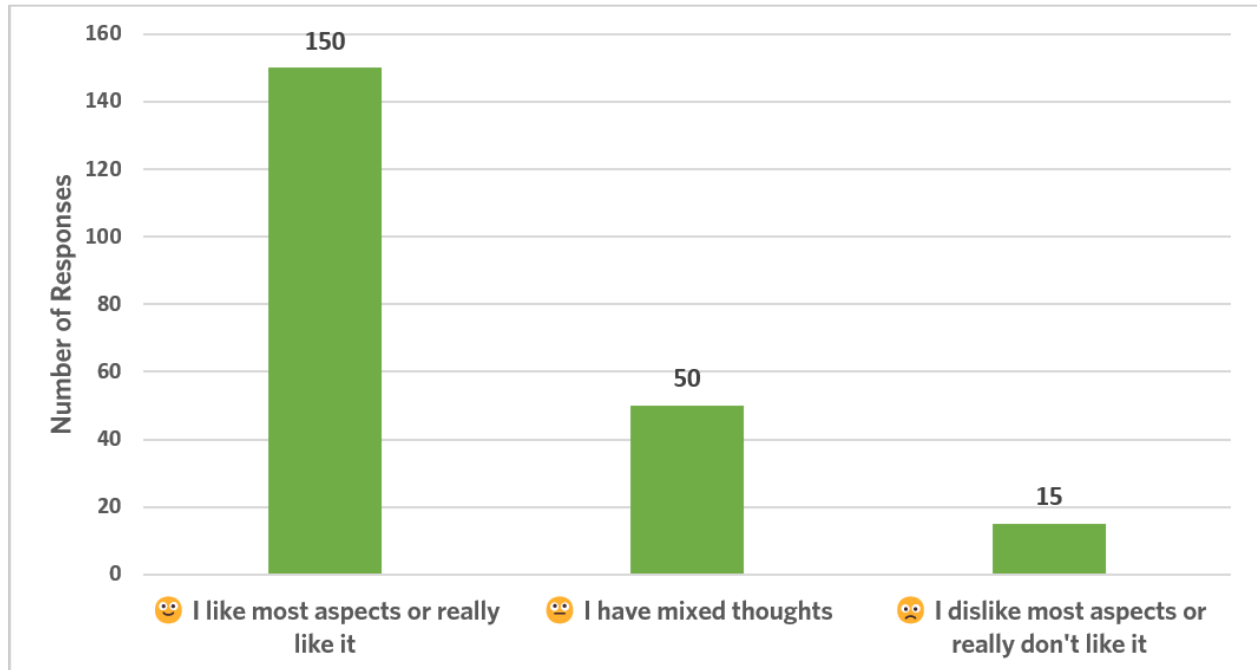
Comment	Frequency Count
Support for climate resilient soils, plantings and green spaces	7
Support for native species and Indigenous plants	5
Support for nature focused community spaces (i.e., food gardens)	5
Protect and restore campus biodiversity and ecosystems	5
Desire for more naturalized, less water / maintenance intensive ground cover	4
Support for meaningfully incorporating Indigenous and Musqueam knowledge	2
Support for integrating ecosystem services in neighbourhood planning	1
Emphasize green space connectivity for pollinators	1
General support	1
Consider specific language for including wildlife	1
Make careful choices around native plants that will be resilient to future climates	1
Support for a Biodiversity Strategy	1
Skepticism about the effectiveness of the Plan	1
Grand Total	35

Q13. What natural features (e.g., trees, gardens etc.) help you feel protected from climate change impacts in your daily life? (optional)

Comment	Frequency Count
Trees and understorey plants	25
Urban green spaces for community use (i.e., gardens, walkways)	21
Forests and extensively treed areas	15
Tree canopy for shade and cooling	11
Native plant and tree species	7
Large, old trees	5
All green spaces and plant life	4
Local parks	3
Refer to experts for climate resilient landscape decisions	1
Wetlands	1
More open space	1
Grand Total	94

Section 4: Climate Change Preparedness

Q14. What do you think about the Climate Emergency Preparedness Emerging Directions?



Q15A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Climate Emergency Preparedness? (optional)

Comment	Frequency Count
Preservation of green space, nature-based solutions and ecosystem thinking	6
More specific language and clarity about actions	5
Accelerate timelines and commitments beyond "making a plan to plan"	4
All new and existing buildings need to be resilient to temperature and air quality changes	4
Better understand future climate threats and infrastructure needs based on population growth and the land use plan update	4
Include considerations for vulnerable populations (i.e., unhoused folks)	2
Add specifics around earthquake, drought and flood preparedness	2
Consider energy and water intensity of misting and cooling stations	2
Monitor indoor air quality	1
Include more meaningful references to Musqueam and Musqueam history	1
Concern about future development and construction	1
Seems to be in contradiction with other housing and planning goals	1
Integrate with wider emergency planning for extreme weather in the region	1

Appreciate the urgency and seriousness of climate change	1
More considerations for social impacts and building community resilience	1
Focus should be elsewhere on carbon emissions and energy consumption	1
Best preparedness comes from long-term planning horizons	1
Communication, notification and community education about climate emergency preparedness	1
Support for more cooling centers	1
Fire mitigation actions for Pacific Spirit Park	1
Focus on local food security	1
Grand Total	42

Q15B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Climate Emergency Preparedness? (optional)

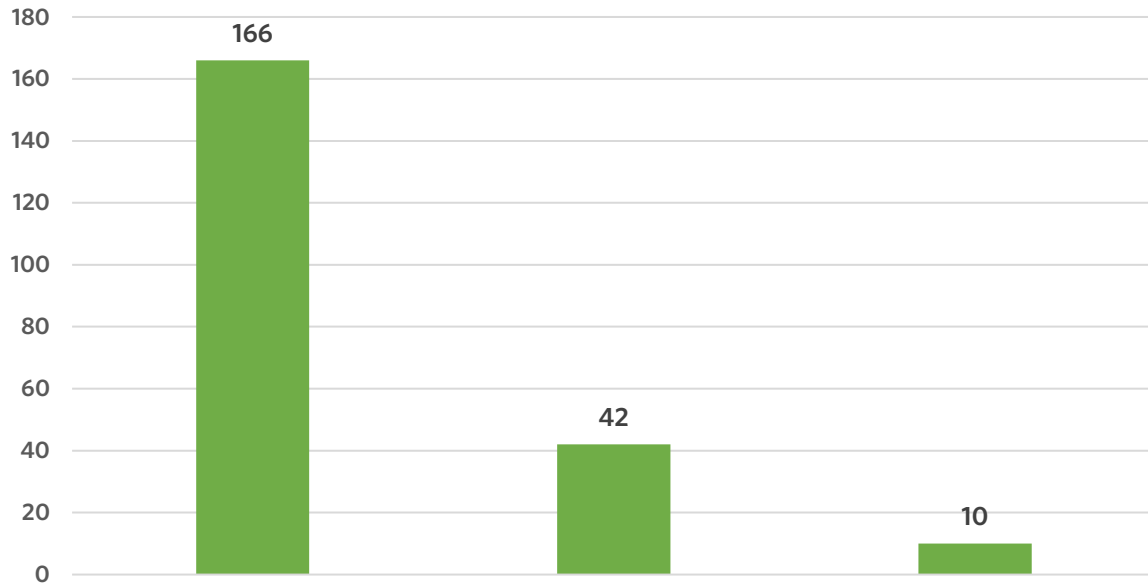
Comment	Frequency Count
Support for low carbon cooling and emergency cooling spaces	7
General support for the implementation of the Plan	6
Also consider emergency heating	2
Need to be aggressive in reducing emissions now to avoid worse climate change impacts	1
Cooling spaces should be open on all hot days, not just heat waves	1
Open spray parks earlier in the summer	1
Support for heat pumps in all buildings	1
Community education components	1
Community gathering in emergencies should consider COVID	1
Need more specifics about actions to enable climate emergency preparedness	1
Grand Total	22

Q16. What would best support you in terms of preparing for climate emergencies and building a resilient, connected community (i.e., community information hubs etc.)? (optional)

Comment	Frequency Count
Community information and support hubs	11
Connection with neighbours and community events that enable support during emergencies	8
Public education campaigns (i.e., information about individual carbon footprints)	5
Low carbon cooling in buildings	2
Clarity on specific actions being taken to protect from different threats (i.e., wildfires)	2
Integrated planning with the UNA and others	2
Protection and restoration of trees, green spaces and forests	1
Urgently take action on this scope area	1
Shade structures around spray parks	1
Emergency water and food supplies	1
Electric vehicles	1
Incorporate Indigenous knowledge	1
Clearly identify locations of additional cooling centers and misting stations	1
Citizen involvement for tree watering during droughts	1
Transparency on what data NCAP is using to define actions	1
Living in a climate resilient building	1
Youth climate action programs and capacity building	1
Comprehensive assessment of climate threats integrated with needs of projected population growth	1
Pacific Spirit Park wildfire preparedness	1
Grand Total	43

Section 5: Neighbourhood Infrastructure

Q17. What do you think about the Neighbourhood Infrastructure Emerging Directions?



Q18A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Neighbourhood Infrastructure? (optional)

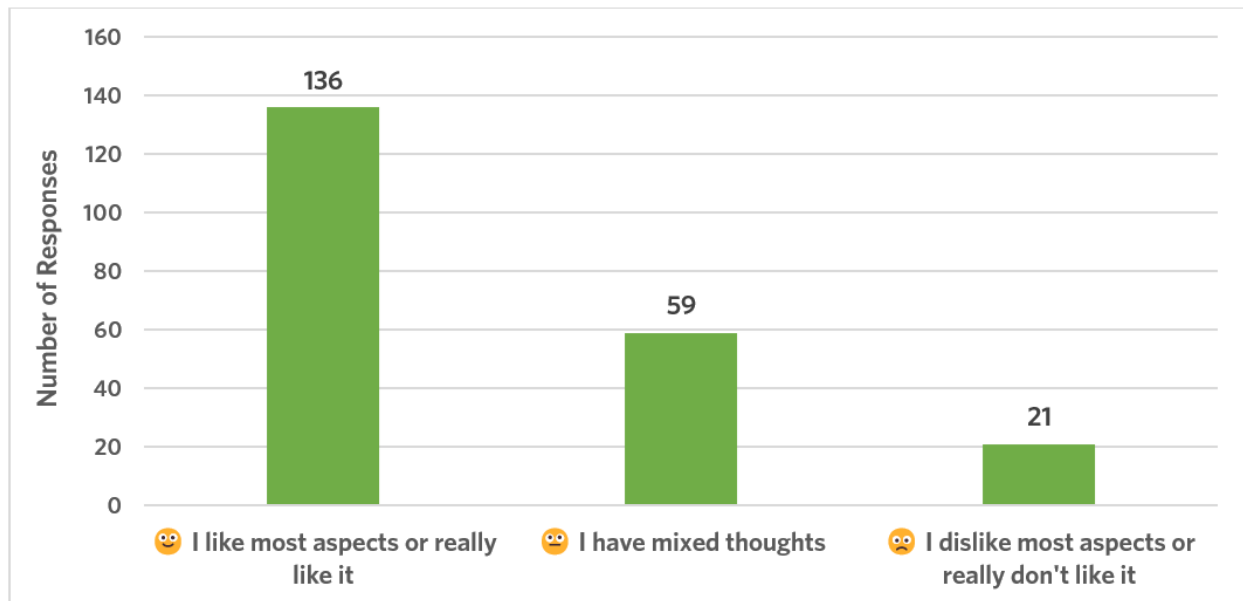
Comment	Frequency Count
Support for expanded stormwater infrastructure (i.e., recycling rainwater, drainage)	8
Support for expanded and improved energy infrastructure (i.e., solar panels, EV charging)	7
General support for the Emerging Directions	4
Desire for clarity on actions and more specific timelines	2
Remove irrigation infrastructure to save water	1
Encourage energy efficient building appliances (i.e., communal washer and dryers)	1
Consider Musqueam community values and priorities	1
Prioritize biodiversity and climate resilience	1
Plan should be flexible to future climate conditions and transparent in its implementation	1
Grand Total	26

Q18B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Neighbourhood Infrastructure? (optional)

Comment	Frequency Count
Improved neighbourhood stormwater infrastructure (i.e., drainage, rainwater collection)	7
Consider the long-term impacts of population growth on infrastructure needs and resiliency	6
Desire for evidence and details that support the actions and timelines	4
Concern about reliance on electricity (i.e., EVs)	3
Include solar and wind power	2
Accelerate the pace of targets	2
Less parking is needed due to the future arrival of SkyTrain	1
Include enhancements in the UEL area	1
Difficult to comment on a "plan to make a plan"	1
Support for heat pump research and installation	1
Concern that funding this scope area will fall on residents	1
Focus on high quality building materials and construction	1
Move away from natural gas to lower carbon energy sources	1
Concern about increased impermeable surfaces and rainwater runoff	1
Include considerations for transportation infrastructure in extreme weather	1
Don't know enough to have an opinion	1
Grand Total	34

Section 6: Transportation & Mobility

Q19. What do you think about the Transportation & Mobility Emerging Directions?



Q20A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Transportation & Mobility? (optional)

Comment	Frequency Count
Concern about accountability and enforceability	9
Prioritize affordable housing on campus	8
Desire for more active transportation-centric infrastructure	7
Desire for acting more quickly	7
Desire for de-emphasis of car use and infrastructure	7
Desire for more equitable and accessible transportation approaches	5
Support for SkyTrain extension to UBC	3
Desire for more specificity in key actions	2
Support for electric vehicles and related infrastructure	2
Desire for public transportation subsidies	2
Concern about traffic congestion	1
Concern about building materials emissions	1
Concern about compact neighbourhood design	1
Desire for use of UEL area A and B	1
Desire for maintenance on existing streets and walkways	1
Concern about burden on transit networks	1

Concern about harsh winters and transportation	1
Desire for convenient, walkable neighbourhoods	1
Desire for more directional signage + wayfinding	1
Desire for idling ban	1
Grand Total	62

Q20B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Transportation & Mobility? (optional)

Comment	Frequency Count
Support for more and improved public transit (buses and rapid transit within and to/from campus)	11
Desire for more zero-emission vehicle infrastructure (e.g., electric or hydrogen powered vehicles)	5
Desire for convenient, walkable neighbourhoods	5
Desire for more accessible and safe bike routes	3
Support for bike share programs	3
Support for SkyTrain extension to UBC	2
Support for people-centric street design	2
Support for sustainable transportation broadly	2
Desire for less car traffic	2
Desire to act quickly	2
Support for current neighbourhood design broadly	1
Support for UBC Bike Kitchen	1
Desire for more accessible and less expensive parking	1
Grand Total	40

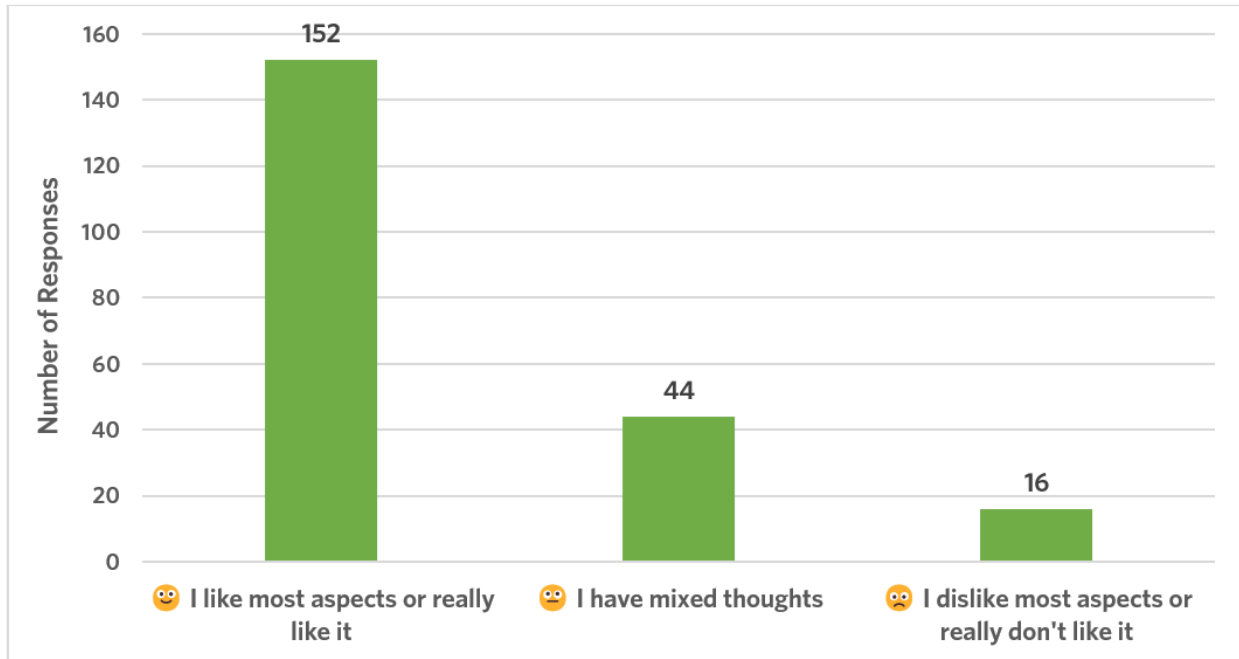
Q21. What would help you use sustainable modes (i.e., walking, rolling, biking, public transit, electric vehicles) of transportation as your first choice? (optional)

Comment	Frequency Count
Safer bike infrastructure (lanes, locks, parkades, routes)	22
More and improved public transit (buses and rapid transit within and to/from campus)	21
More EV chargers	9
More clear paths, signage, and infrastructure for active transportation methods (e.g., designated lanes, lighting, ramps)	8

No supports needed	6
Safer pedestrian crossing and walkways	6
Skytrain extension to UBC	5
Better bike share, electric scooter sharing platforms	4
Better circumstances (weather, money, physical ability)	3
More affordable housing on campus	3
More safe shortcuts and paths for pedestrians	2
De-emphasis of car traffic	2
Lower cost sustainable transportation	2
Consideration of the ethics of EV use	1
Accessibility shuttles	1
Lower cost public transit	1
Accountability on affordability and access	1
An off-site campus in the Fraser Valley area	1
More free and accessible parking	1
Cultural shift to sustainable modes of transportation	1
Free EV parking	1
Grand Total	101

Section 7: Waste, Materials, & Consumables

Q22. What do you think about the Waste, Materials & Consumables Emerging Directions?



Q23A. If Really Dislike or Dislike were selected: What would make you more supportive of the Emerging Directions for Waste, Materials & Consumables? (optional)

Comment	Frequency Count
Desire for an expansion of waste reduction initiatives	10
Reduce burden of waste reduction on consumers and incentivize	9
Clarify governance and accountability plans for achieving targets	7
Desire for faster timelines	5
Concern for how population growth will impact waste reduction	4
Desire for more specific language and targets	3
Desire for improved education on waste sorting	1
Desire for UBC to financially support these initiatives	1
Desire for achievable construction standards	1
Desire for no further construction	1
Grand Total	42

Q23B. If Really Like, Like or Mixed Thoughts was selected: What do you like about the Emerging Directions for Waste, Materials & Consumables? (optional)

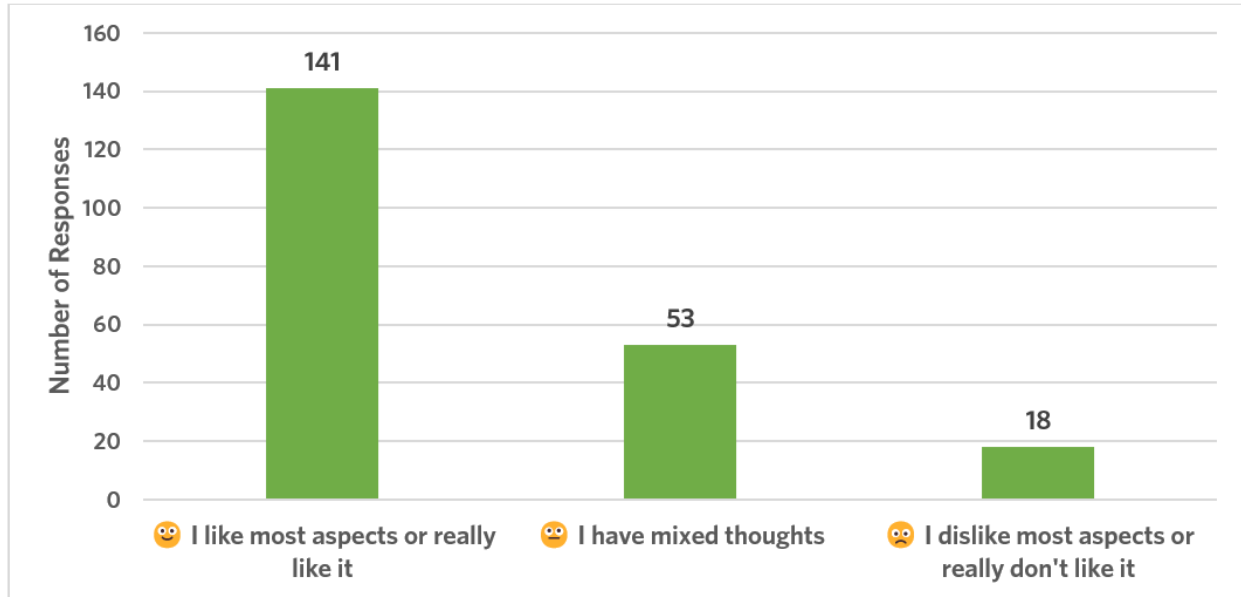
Comment	Frequency Count
Desire for an expansion of waste diversion services (e.g., Green Depot, provision of recycling bins at the household level)	10
Support for repair facilities	5
Support for tool sharing	5
Support for strengthened construction and demolition standards.	4
Support for community yard sales	3
Desire for more education on sorting waste.	3
Desire for incentives/penalties so people sort waste correctly.	2
Desire for improved accessibility of waste sorting.	2
Desire for more specific language and targets	2
Desire for a faster timeline	2
Consolidate waste collection of different buildings to reduce traffic in improve monitoring	1
Desire for more natural landscaping practices	1
Grand Total	40

Q24. What would make it easier for you to manage waste in your daily life? (e.g., consuming less, sorting, recycling and/or composting your waste, etc.) (optional)

Comment	Frequency Count
Recycling and waste sorting guides and resources that help to raise awareness and educate the public	16
Clean, accessible and easy to understand recycling rooms and spaces across the neighbourhoods	15
Less plastic/ disposable packaging used in stores and restaurants	7
Consuming less items with disposable packaging	7
Resources to encourage more sharing and reuse of materials (i.e., "swap shelf," donation bins)	6
Composting and producing less food waste	4
All of the above	2
Information on how to reduce waste on a budget	2
Better promotion of the Green Depot	1
Neighbourhood events to promote sustainable waste disposal of large items	1
Monitoring of waste streams	1
Financial incentives and penalties	1
General support for the existing waste infrastructure	1
Grand Total	64

Section 8: General Feedback

Q25. Thinking about the six scope areas together, what do you think about the NCAP Emerging Directions?



Q26. Anything else to add? (optional)

Comment	Frequency Count
Plan needs more specific language and more ambitious, accelerated timelines	14
General support for the Emerging Directions	13
Concern and distrust in the Plan process and governance (i.e., in tension with the land use plan)	8
Concern about impacts of development on future neighbourhoods	8
Include housing affordability and other community resilience considerations	5
Hope for the Plan to have meaningful outcomes	2
Reduce waste generated by UBC restaurants	1
Concern about the eagles' nest coning	1
Sentiment that NCAP should come before the land use plan	1
Support for being inclusive of future generations	1
Do not incorporate carbon offset actions	1
Provide more affordable housing on campus to decrease commuting emissions	1
Include bird friendly glass requirements	1

Replace neighbourhood donation bins	1
UBC should be on the leading edge of climate action	1
Strengthen biodiversity actions	1
We can never prepare enough	1
The Plan needs to prioritize UBC students, faculty and staff	1
Climate emergency preparedness needs to include disaster planning too	1
Communicate actions that residents can take to support the Plan	1
Incorporate meaningful reconciliation actions	1
More community gardens	1
Grand Total	67

Appendix III

Detailed Engagement Takeaways

Detailed Engagement Takeaways

This section provides more detailed information about what we heard from in person and virtual engagement events.

Public and Targeted Workshops

Workshops included public workshops (2 in person and 1 online) as well as targeted workshops with the UNA Board, the University Communities for Sustainable Development (UCSD), and Campus + Community Planning staff. Workshops were long format event (two hours) comprised of a short presentation sharing an overview of NCAP, followed by small group discussions to provide feedback. One of the in-person public workshops included Mandarin translation. The following section summarizes notes taken by staff during these sessions.

General

- Desire for the plan to leverage existing spaces and opportunities to communicate and educate community members on the importance of taking climate action and how they can get involved.
- Desire for the plan to effectively use incentives to motivate climate action amongst community members (e.g., community gardens, transit subsidies).
- Difficulty understanding technical terminology (e.g., “net-zero operational emissions”) and desire for more granularity of detail for broad terminology (e.g., “affordable”) in goals, targets, and actions.
- Concerns for accountability and how the plan will respond to and evolve over time ensuring to build social resiliency through an adaptive management approach.
- Desire to understand how NCAP fits into the local, provincial, federal policy context – what assumptions are being made to achieve goals, targets, and actions and whether there are any competing forces.
- Some doubt that long-term environmental and socioeconomic outcomes have not been considered carefully enough with the net-zero energy goals – looking for more context-driven solutions.

Climate Change Experience

- Concern for increasing temperatures and extreme weather events and how they will impact future generations – seek hope in climate anxiety, frustration, and fear that is felt.
- Observe unusual ecological changes across campus and Metro Vancouver (e.g., hemlocks dying).
- Feel a sense of urgency to take climate action – especially from experiences of heat wave impacts and the lack of emergency infrastructure.

- Notice rising interests and awareness of climate change as well as the growing opportunities to support sustainability at UBC. Desire for more leadership and involvement opportunities.
- Having to adjust daily-activities and practices (e.g., avoid mid-day appointments during the summer).

Transportation

- Sustainable transportation modes must be the more convenient, reliable, and affordable option to drive change – overcrowding and accessibility of public transit is a big issue for the elderly and physically challenged.
- Desire for the plan to acknowledge its dependency on public transit solutions that are beyond UBC’s control as well as other uncertainties – suggestion to diversify transit solution options.
- Desire for the plan to encourage active and public transportation en masse as opposed to emphasizing EVs or car-sharing.
- The 68-bus route is a convenient method to get around campus.

Waste

- Enthusiasm for the expansion of tool-sharing programs and second-hand use of items.
- Support for UBC’s waste sorting standards. Desire to be implemented city-wide. While the plan emphasizes repair and reuse, there are currently very limited public facilities to do so. Suggestion to reduce barriers to participation.
- Suggestion to make waste sorting a more pleasant experience – waste sorting spaces in units, buildings, and public are often unappealing (i.e., bad smell, dirty, unaesthetic).

New Construction and Existing Buildings

- Concerns for accessibility to cooling systems and energy management in older buildings – especially for vulnerable populations (e.g., elderly).
- Desire for more transparency and accessibility to information regarding REAP and building design for tenants, renters, and residents. Suggestion for ongoing monitoring and evaluations of outcomes of buildings with respect to REAP.
- Concerns regarding how these new targets will impact the affordability of homes – especially how cost of retrofits to meet REAP standards will impact renters who do not have control.
- Concerns for load management issues after shifting to electrification (i.e., sharing energy between heat pumps at the suite level, and charging EVs).
- Desire for a life cycle assessment and end-of-life plan for buildings to be completed upfront.

Ecology

- Support for implementing functional and natural landscapes over manicured landscapes – coexisting with nature.
- Suggestion for the goal, targets, and actions to emphasize creating healthy ecosystems and takeaway learnings from the UBC’s biodiversity strategy.
- Enthusiasm for more Indigenous landscaping (e.g., Indigenous plants) in the neighbourhoods, and community programming with Musqueam (e.g., exclusive harvesting areas for Musqueam) – “We must tackle invasive species or colonial ecological frameworks while increasing Indigenous plant life”.

Neighbourhood Infrastructure

- Desire for the plan to emphasize efficient and mindful resource use on both the individual and infrastructure level – enhancing the use of current resources rather than creating all new.

Climate Emergency Preparedness

- Desire for the plan to continue impact assessments and identify how resources should be allocated by UBC accordingly.
- Support for the plan’s community-based approach. Suggestion to create micro-communities to enhance connection, trust, agency, accountability, knowledge-sharing, and sustainable practices.

Process

- Desire for the plan to expand on equity, diversity, and inclusion in taking climate action. For example, through more language translations.
- Trust is crucial for getting community input and for the overall success of the NCAP.
- “Oneness and connectedness make people feel more inspired to take action. The [environmental] problem keeps happening and keeps getting worse!”
- Appreciation for NCAP Workshops and involving community members into the development process.
- Opportunity to improve the plan through knowledge sharing with UBC faculty and experts.
- Desire for an update responding to the feedback received during NCAP engagement – what can or cannot be incorporated into the plan and why.

Community Conversations

Community Conversations consisted of small to medium group sessions involving neighbourhood resident community groups from various demographics. Groups included Tapestry Seniors, UNA Newcomers Support Group, UNA Youth Leadership Group, UNA Pre-Teen Leadership Group, the Environmental Alliance at University Hill Secondary School, and a group of UBC students who are neighbourhood residents.

Each session was comprised of a presentation of NCAP, and an in-depth facilitated 1–2-hour discussion which allowed participants to share their input on the Emerging Directions. The following section summarizes notes taken by staff during these sessions.

General

- Expressed appreciation for the framing and categorization of the six scope areas
- Desire to see more demographic-specific action pieces in each scope area in order to address intersectionality and equity considerations.
- Idea of making sustainable behaviours and choices more “normalized” than non-sustainable behaviours and choices--shifting infrastructure to shift common sense.
- Concerned about the use of privatized facilities and infrastructure in efforts to be sustainable, such as increasing the number of corporate grocery stores, Modo/Evo, and even the use of the community center being based on paid bookings. Desire for locally-based and publicly accessible food security initiatives and grocers, transportation options, and third spaces.
- Desire for more centralized resources to understand climate action work being done in neighbourhoods (e.g., clear, targeted, and equitable communication methods with stronger and more consistent messaging about leadership opportunities).
- Overarching desire to see “incentivization” over “encouragement/promotion” to partake in climate initiatives (e.g., consistent, safe, and cost-effective transportation options; monetary incentives for planting and caring for Indigenous plants; monetary incentive for bikeshare use).

Lived Experience with Changing Climate Conditions

- Participants deeply feel the urgency of the climate crisis and asserted desire to expedite climate action measures and risk assessments being taken in their neighbourhoods.
- Participants experienced climate change and climate anxiety through experiencing warmer and longer summers, colder and harsher winters, increased storms, as well as smoke in the neighbourhoods.

New and Existing Buildings

- Concern towards accountability measures for those implementing NCAP plans for existing buildings (e.g., despite these kinds of plans, new buildings still have gas stoves and appliances throughout).

Ecology

- Desire for more Musqueam ownership of ecology, land, and stewardship measures.

Climate Emergency Preparedness

- Desire for clear, thought-out, and accessible pre, during, and post-emergency plans, resources, and education to prepare for climate disasters situations (e.g., rain and snowstorms, earthquakes, pandemics which will increase with the prevalence of climate change).
- Desired community connectivity, especially in relation to apartment culture where most residents don't know their neighbours (e.g., increasing common, accessible, and third spaces within the neighbourhoods).

Neighbourhood Infrastructure

- Desire for more education about the kinds of infrastructure existing and developing in the neighbourhood, and for that information to be readily available and accessible (e.g., about building plans and energy use, sustainable infrastructure projects including water features, traffic and increasing density management plans).

Waste, Materials, and Consumables

- Desire for consistent messaging between buildings, public and private infrastructure, about waste management and waste sorting in particular--seeing this as an existing issue.

Transportation and Mobility

- Desire for safety and accessibility when it comes to transportation infrastructure, especially for more vulnerable communities (e.g., traffic management, more clear active transportation signage).
- Desire for incentivization for sustainable transportation choices (e.g., bike repair, incentivized bikeshare, free local and emergency transit options).

Appendix IV

Display Boards

Display Boards

Welcome!

UBC's Neighbourhood Climate Action Plan is our pathway to a net-zero, climate resilient community.

We'd like to hear from you on the Neighbourhood Climate Action Plan's emerging directions, which include proposed goals, targets and actions to help inform the policies, programs and infrastructure needed to build a sustainable, healthy, and resilient community.



We want to hear from you!
Public Engagement:
Oct 17 - Nov 3

Engagement with community members like you is an important component of the NCAP process as it is critical for our team to understand your needs and interests to help shape the priorities and actions of NCAP.

Scan the QR code or visit the link below to learn more and get involved.



Next Steps

Your feedback, alongside ongoing technical work, will inform the draft NCAP which will be presented to the community for further feedback in early 2024 before going to the UBC Board of Governors for endorsement. The approved NCAP will shape future development, starting with the completion of Wesbrook Place over the next seven to ten years.

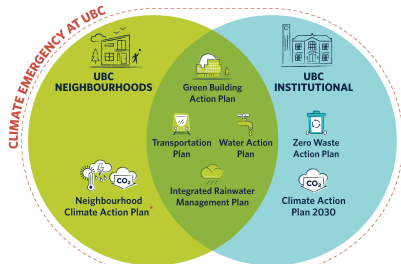


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UBC Sustainability Action Plans**

NCAP will ensure any future growth planned through Campus Vision 2050 remains consistent with our commitments to sustainability. NCAP will also be informed by and will inform the following sustainability plans and policies:




NCAP Guiding Principles

The Guiding Principles for NCAP are how we will prioritize the NCAP goals and actions and evaluate their success.



*Replaces Community Energy and Emissions Plan and adds adaptation scope
 **Current and future plans align with and are informed by Campus Vision 2050

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Community Emissions

2022 Community Emissions by Source (tonnes CO₂e)



Greenhouse gas emissions from buildings, which includes heating, cooling and hot water, are the largest source of community emissions, followed by emissions from resident vehicle travel and direct emissions from waste at the landfill.

What's net zero?

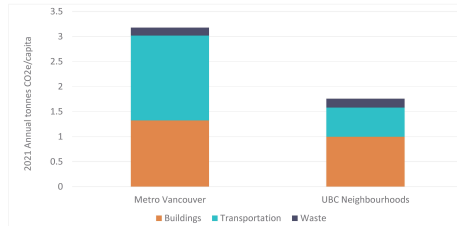
Net zero emissions means that all human-caused emissions (such as those from fossil-fueled vehicles and heating our homes and hot water) should be reduced as close to zero as possible and then the remaining emissions are balanced by the removal of an equivalent amount of greenhouse gases from the atmosphere (i.e. offset).

Net zero emissions is the global, collective target set in the Paris Agreement, with the goal of limiting global warming to 1.5°C. That's the threshold many scientists have said is crucial to avoid the most disastrous effects of global warming.

2021 Per Capita Emissions (tonnes CO₂e/capita): Metro Vancouver vs. UBC Neighbourhoods

UBC community emissions are estimated to be significantly lower than the Metro Vancouver region on a per capita basis. Existing UBC plans and policies such as our compact land-use planning and Residential Environmental Assessment Program requirements for new buildings, have helped us achieve this.

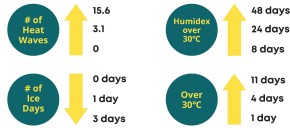
That said, without additional actions community emissions are projected to rise 35% over 2022 levels by 2050. NCAP will define how UBC turns that trend down to achieve net zero community emissions.



Climate Change at UBC

TEMPERATURES EXTREMES

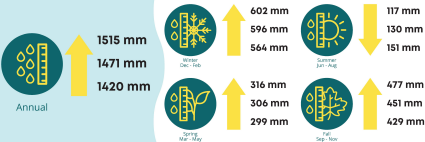
Extreme heat is projected to increase annually and Ice Days, days that do not exceed 0°C, are expected to decrease.



THREE TIME PERIODS: Bottom (Baseline: 1971-2000), Middle (Present/Near Future: 2021-2050), Top (Future: 2051-2080)

MEAN PRECIPITATION

Annual precipitation is expected to increase. Winter and Spring are projected to get significantly wetter, with a slight decline in the Summer.



THREE TIME PERIODS: Bottom (Baseline: 1971-2000), Middle (Present/Near Future: 2021-2050), Top (Future: 2051-2080)

Climate projections show the UBC Vancouver campus will have more extreme day-to-day weather and also gradual constant changes, including rain, droughts, and warmer summer temperatures. NCAP will define how UBC adapts to these changes to build a resilient neighbourhood community.

What's climate resilience?

NCAP is doing more than addressing emission reductions. It is also about being prepared for a changing climate that is leading to more frequent severe weather events such as extreme heat and flooding. The impacts are felt in our day-to-day lives and threaten our health and wellbeing by affecting the air we breathe, the water we drink and the natural ecosystems of our community.

A climate resilient community has the programs and infrastructure in place to proactively understand and prepare for a changing climate and reduce climate-related risks.

New Construction

Goal

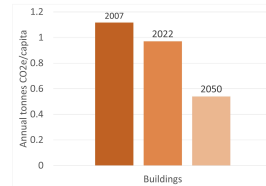
New developments are models of low carbon, energy efficient and passive design, built to provide safe and healthy homes that are resilient to the effects of climate change.

Targets

- By 2025, require low carbon energy (i.e., energy from low carbon district energy, or electricity) for all new neighbourhood buildings, and by 2030, define a pathway to achieve net zero operational emissions in new neighbourhood buildings.
- All new buildings are designed to meet cooling and air quality needs for a 2050's climate scenario (this has been our current policy since 2020) and are optimized for efficiency using passive (e.g., external shading) and active strategies (e.g., heat pumps).
- Require the highest energy efficiency standard ahead of adoption by the BC Building Code in 2032.

Examples of key actions to achieve these targets

- Reduce the amount of carbon emitted by new buildings by increasing performance targets as set out by the Residential Environmental Assessment Program (REAP), a UBC-specific green building rating system that's mandatory for multi-unit residential construction in the neighbourhoods.
- Require cleaner, low carbon energy sources (such as electricity) to heat, cool and power our homes.
- Transition the Neighbourhood District Energy System (NDES) to low carbon energy supply.
- Strengthen and expand mandatory climate resilience building design requirements to address our climate projections.



Projected annual carbon emissions per capita (tCO₂e/capita) for buildings under a business-as-usual scenario

Existing Buildings

Goal

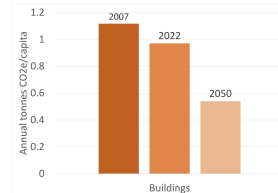
Existing neighbourhood buildings have been retrofitted to achieve low carbon, energy-efficient operations, providing safe and healthy homes that are resilient to the effects of climate change.

Targets

- By 2030 convert Neighbourhood District Energy System (NDES) to low carbon energy supply.
- From 2030 onwards, all retrofits of building domestic hot water and space heating systems will be supplied by low carbon energy.
- By 2030, at least 50% of homes have active, low carbon cooling and establish a target date for achieving 100%.
- By 2050, all existing buildings in UBC's residential neighbourhoods achieve net zero operational emissions and have completed retrofits to adapt to 2050's climate conditions.

Examples of key actions to achieve these targets

- Require cleaner, low carbon energy sources to heat, cool and power our homes. For example, using electric systems to replace hot water, space heating systems and natural gas fireplaces.
- Transition the Neighbourhood District Energy System (NDES) to low carbon energy supply.
- Retrofit buildings to improve thermal comfort, improve indoor air quality and provide cooling systems.



Projected annual carbon emissions per capita (tCO₂e/capita) for buildings under a business-as-usual scenario

Embodied Carbon

Goal

UBC has established the most ambitious targets for embodied carbon for new construction in the region. All materials for neighbourhood buildings and infrastructure are considered from a life cycle perspective accelerating progress towards net zero embodied emissions. Enhanced standards and integrated design principles drive innovation in building design and construction, lowering the impact of development at UBC.

Targets

- By 2030, UBC will require at least 40% reduction of embodied carbon (with an interim target of at least 10% by 2025) in new neighbourhood buildings.

Examples of actions to achieve these targets

- Establish targets to reduce embodied emissions for new neighbourhood buildings through updates to REAP, a UBC-specific green building rating system that's mandatory for multi-unit residential construction in the neighbourhoods.
- Improve the way embodied carbon is calculated and reported to help more accurately assess environmental impact of each stage of the building lifecycle, including considering adopting a total carbon footprint (i.e. combining embodied and operational emissions) target for new buildings.
- Explore expanding embodied carbon standards to include existing building retrofits, building deconstruction, and neighbourhood infrastructure.

What's embodied carbon?

Embodied carbon in buildings is the greenhouse gas emissions associated with the production, transportation, construction, maintenance, replacement, and disposal of building and construction materials.

Embodied carbon combined with operational emissions arising from building operations (e.g. from energy use) define the whole lifecycle carbon impact of a building.

Ecology

Goal

Trees, landscapes, and other natural assets provide vital services to help UBC's neighbourhoods adapt to a changing climate. A network of resilient, connected green public spaces, courtyards, and corridors are integrated with neighbourhood buildings, help support ecosystem services, and are welcoming and restorative places that provide opportunities for connection between residents.

Targets

- By 2025, complete a climate change adaptation vulnerability and risk assessment on expected impacts to natural systems and develop actions to plan for and respond to these expected impacts.
- By 2025, update the Residential Environmental Assessment Program (a UBC-specific green building rating system that's mandatory for multi-unit residential construction in the neighbourhoods) with enhanced biodiversity and ecosystem services requirements for new construction.
- By 2025, promote climate resilient plants and materials, including Indigenous plants traditionally harvested by Musqueam.



Examples of actions to achieve this goal

- Address climate action by integrating ecosystem services into neighbourhood planning (e.g. tree canopy to address urban heat island effect, use of landscaping and other natural systems in flood regulation).
- Support development of UBC's biodiversity strategy, which will identify tree canopy targets and opportunities to create and enhance ecological corridors.
- Support the University Neighbourhoods Association in developing climate resilient landscaping practices (e.g., drought resistant plants).

Climate Emergency Preparedness

Goal

UBC's neighbourhood communities are strong and resilient in the face of emergency events related to climate change impacts. Information, infrastructure, services, and community-led initiatives will provide a comprehensive and responsive support system for neighbourhood residents

Targets

- By 2025, complete a climate change adaptation vulnerability and risk assessment on expected impacts to the neighbourhood community and develop actions to plan for and respond to these expected impacts.

Examples of actions to achieve this goal

- Support establishing emergency cooling spaces throughout residential neighbourhoods (e.g. indoor cooling centres, misting stations, spray parks).
- Support wildfire preparedness efforts for residential neighbourhoods.



Transportation & Mobility

Goal

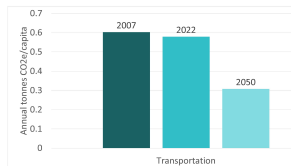
Expanded public transit networks and improved active transportation infrastructure will provide neighbourhood community members of all ages and abilities with reliable, affordable, inclusive and low carbon transportation options for traveling to, from and around campus.

Targets

- By 2050, all trips from UBC's residential neighbourhoods are made via active or sustainable modes and are net zero operational emissions.
- Establish a 2035 target for emissions reductions from neighbourhood trips, based on:
 - a target for % trips made by active transportation or public transit, and
 - zero emission vehicle adoption.

Examples of key actions to achieve this target:

- Implement design standards for streets to ensure they're convenient and accessible for everyone who uses them whether they're walking, rolling, cycling, or taking public transportation.
- Expand bike share programs to better connect us to the region.
- Continue to advocate and plan for rapid transit expansion to campus.
- Improve intra-campus and intra-neighborhood transit service.
- Provide infrastructure to support transition to zero emissions vehicles such as retrofitting existing buildings to include EV charging stations.
- Improve resilience of sustainable transportation network (e.g. shading and covered shelters at public transit facilities, shading along walking and cycling routes).



Projected annual carbon emissions per capita (tCO₂e/capita) for transportation under a business-as-usual scenario

Waste, Materials and Consumables

Goal

UBC's residential neighbourhoods support sustainable resource use throughout the community and are progressing towards a zero-waste community. Zero waste initiatives are driving sharing, reuse, and repair within UBC's neighbourhoods making it easier and more convenient to consume less. Thoughtful building and neighbourhood design, as well as community programming, make waste sorting and diversion easy and efficient for all residents and visitors. Construction and demolition practices ensure optimized reuse and diversion of materials.

Targets

- By 2030, 90% of waste from new construction, retrofits and demolition will divert from landfill.
- By 2050, UBC's residential neighbourhoods will achieve net zero emissions from solid waste.

Examples of actions to achieve these targets

- Support the University Neighbourhoods Association (UNA) in establishing and expanding zero waste initiatives such as community yard sales, tool sharing, or repair facilities.
- Support and facilitate programs to improve waste diversion such as expanding the UNA Green Depot and ensuring all existing buildings have recycling and organic services.
- Strengthening construction and demolition standards to eliminate waste from landfills.



Neighbourhood Infrastructure

Goal

Neighbourhood Infrastructure is resilient and ready to respond to extreme and long-term changes to our climate. Neighbourhood energy supply is upgraded to provide resilient, efficient, affordable, and low carbon energy throughout the neighbourhoods. Water infrastructure is upgraded, expanded, and adapted to support climate action throughout the residential neighbourhoods.

Targets

- By 2025, update UBC's Integrated Rainwater Management Plan to adapt to the anticipated impacts of climate change.
- By 2025, complete a climate change adaptation vulnerability and risk assessment on expected impacts to built systems and develop actions to plan for and respond to these expected impacts.
- By 2030, convert Neighbourhood District Energy System (NDES) to low carbon energy supply.

Examples of actions to achieve this goal

- Upgrade our low carbon energy infrastructure (e.g. electricity, low carbon district energy) to ensure sufficient supply to support climate action (e.g. to heat, cool and power our homes, support electric vehicle adoption).
- Support work to assess our current rainwater infrastructure and support actions to adapt these systems to the anticipated impacts of climate change, which help to reduce the impacts of stormwater flows and enhance water quality on campus.



End of Appendix IV