



RESILIENT NEIGHBOURHOODS PROGRAM
2022 COMMUNITY-LED
EXTREME HEAT RESILIENCE

PREPARED BY: VANCOUVER EMERGENCY MANAGEMENT AGENCY

DATE: MARCH 2023



ACKNOWLEDGEMENT OF TRADITIONAL, UNCEDDED TERRITORIES

This report begins with an acknowledgement that the City of Vancouver is located on the unceded territories of the x̣ṃəθḳʷəỵəm (Musqueam), Sḳwx̣wú7mesh (Squamish), and sə̣lilwətaʔ (Tsleil-Waututh) Nations. These Peoples have stewarded these lands in resilient, adaptive, and sustainable ways since time immemorial. As the City of Vancouver looks to foster a resilient future, we have much to learn from Musqueam, Squamish, Tsleil-Waututh, and Urban Indigenous peoples who, despite systematic and institutional efforts to eradicate their communities and their cultures, have survived and represent a growing and powerful force — revitalizing their languages and cultures, reclaiming and naming traditional cultural spaces and fighting to shape new relationships among all peoples of this land. A resilient future for everyone on these lands is inextricably linked to reconciliation and decolonization.

INTRODUCTION

Equity, intersectionality, reconciliation, and decolonization are important values and commitments that must be integrated into manage emergencies and disasters. Emergencies and disasters ultimately lay bare our deepest inequities, and are created through choices we have made. More effort is needed to better support and consider the needs of disproportionately impacted people when it comes to climate change and disasters. Residents who may be disproportionately affected by extreme heat include: Seniors and elderly residents; people with disabilities; socially isolated people; houseless and under-housed residents; medically complex individuals; Urban Indigenous Peoples; racialized communities, ethno-cultural groups and new immigrants; and residents whose employment is primarily outdoors or in inadequately cool buildings (construction, factory work, farming, landscaping, maintenance, etc.)

Vancouver is rich in community-based organizations that weave together strong and flexible social fabric that enhances the social, spiritual, and physical health and wellbeing of residents. This social infrastructure supports community day-to-day, and is increasingly called upon to support people during crises where government services fall short. Ultimately, during crises people go to the places, people, and programs they trust and know to meet their needs.

In December of 2022, staff from the City of Vancouver's Vancouver Emergency Management Agency (VEMA) and Social Policy hosted a 2022 Heat Planning Lessons Learned session with key partners in the City's Resilient Neighbourhood Program (RNP). The goals of the session were to:

- Gather information on individual and community experiences of extreme heat in 2022.
- Formally inventory the various approaches taken by community partners to support neighbourhoods for extreme heat in 2022.
- Better understand how the City can improve the way we partner with and support community-based organizations.

Participating RNP organizations in the 2022 Heat Planning Lessons Learned session included: The Vancouver Aboriginal Friendship Centre Society, Association of Neighbourhood Houses of BC, Britannia Community Services Centre, Cedar Cottage Neighbourhood House, Collingwood Neighbourhood House, DTES Neighbourhood House, Frog Hollow Neighbourhood House, Gordon Neighbourhood House, Kitsilano Neighbourhood House, Little Mountain Neighbourhood House, Marpole Neighbourhood House, Mount Pleasant Neighbourhood House, and South Vancouver Neighbourhood House. City staff from the Vancouver Emergency Management Agency (VEMA) and Arts Culture and Community Services (ACCS) hosted two live online sessions to capture community-led heat resilience work, and recommendations for ongoing work.

An outcome of this session, in addition to numerous individual engagements with key neighbourhood leaders, was to create a report capturing community-led actions to extreme heat. Our hope is to continue collaborating and improving supports, including resourcing for organizations and programs that serve residents through extreme heat events, as well as other emergencies and disasters. The 2022 Extreme Heat Lessons Learned process concludes a year of collaboration and mobilization with partners of the Resilient Neighbourhood Program.

Note: The following report summarizes extreme heat planning and actions led by community-based organizations with support from the City, as part of the Resilient Neighbourhoods Program. It does not capture City-led actions related to extreme heat, or summarize the extensive work done by other community organizations, including those that were provided one-time Resilient Neighbourhoods Grants. A brief, high-level summary of City-led actions and Grants can be found in appendix B and C of this report.

BACKGROUND: RESILIENCE AND SOCIAL INFRASTRUCTURE

Between 2017 and 2020, the City of Vancouver piloted the Resilient Neighbourhoods Program. Through this pilot, the City set out to take a resilience and capacity-building lens to identify the services and networks that enable neighbourhoods to thrive day-to-day, and consider how these assets can transform to prepare for, respond to, recover from, and adapt in the face of emergencies and disasters. This program is predicated on the knowledge that during crises, people go to the places and people they trust to meet their needs. Community is full of irreplaceable knowledge, networks, assets, and capacities. The conditions that foster healthy, happy, connected, and sustainable communities are the same conditions that foster resilience. Community resilience is ultimately based on collaborative problem-solving, community care, and built at the speed of trust.

After the pilot, the Resilient Neighbourhoods Program was put on pause in 2020 at the onset of the COVID19 Pandemic, but was relaunched in 2022 to address major gaps in extreme heat and community resilience. The following work builds on this Pilot, as well as many lessons captured from community-led resilience work in the COVID19 Pandemic. The work outlined in this report is a core example of how the City is implementing both the Resilient Vancouver Strategy (2019) and the Spaces to Thrive: Social Infrastructure Strategy (2021). A more detailed explanation of this work is contained in Appendix A.

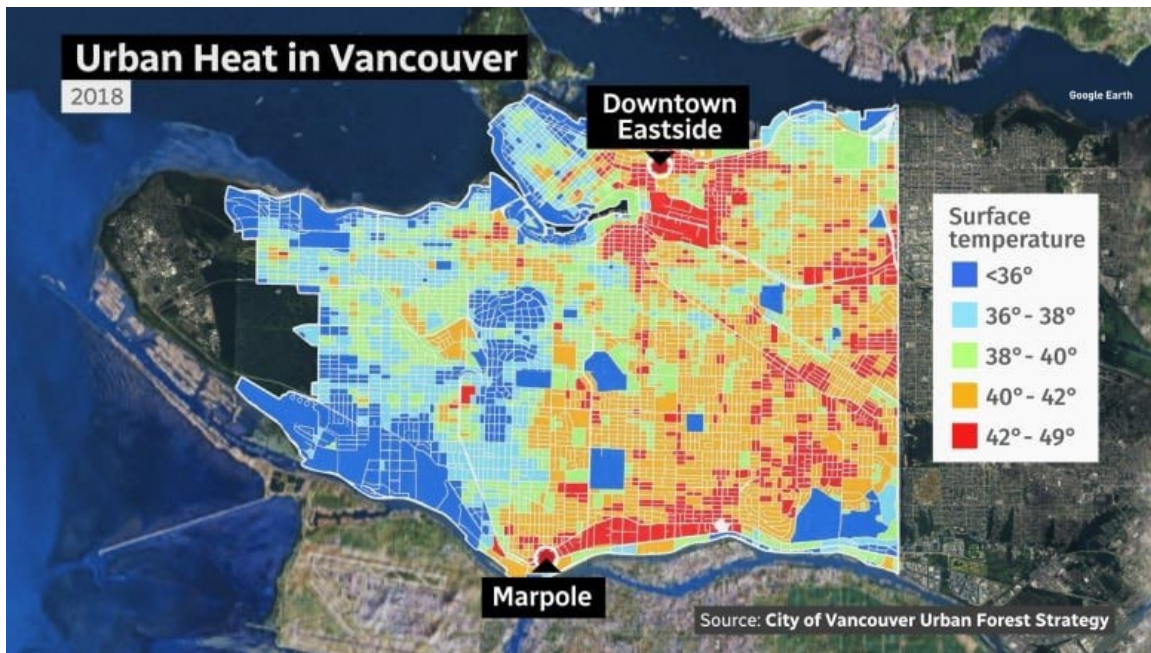
CONTEXT: HEAT DOME LESSONS LEARNED

In 2021, a Heat Dome developed over the Province and resulted in the deaths of over 600 people across the British Columbia. Over 100 people are estimated to have died in Vancouver as a result of extreme heat. While extreme heat events are natural processes, climate change is increasing the frequency, severity, and duration of these events. Vancouver, with a historically mild climate, lacks the adequate cooling infrastructure necessary to protect the health and wellbeing of the community during these increasingly severe events. The Coroner's Report revealed that people who died during the Heat Dome were primarily seniors, had chronic health conditions, lived alone and in poverty, and died isolated at home.

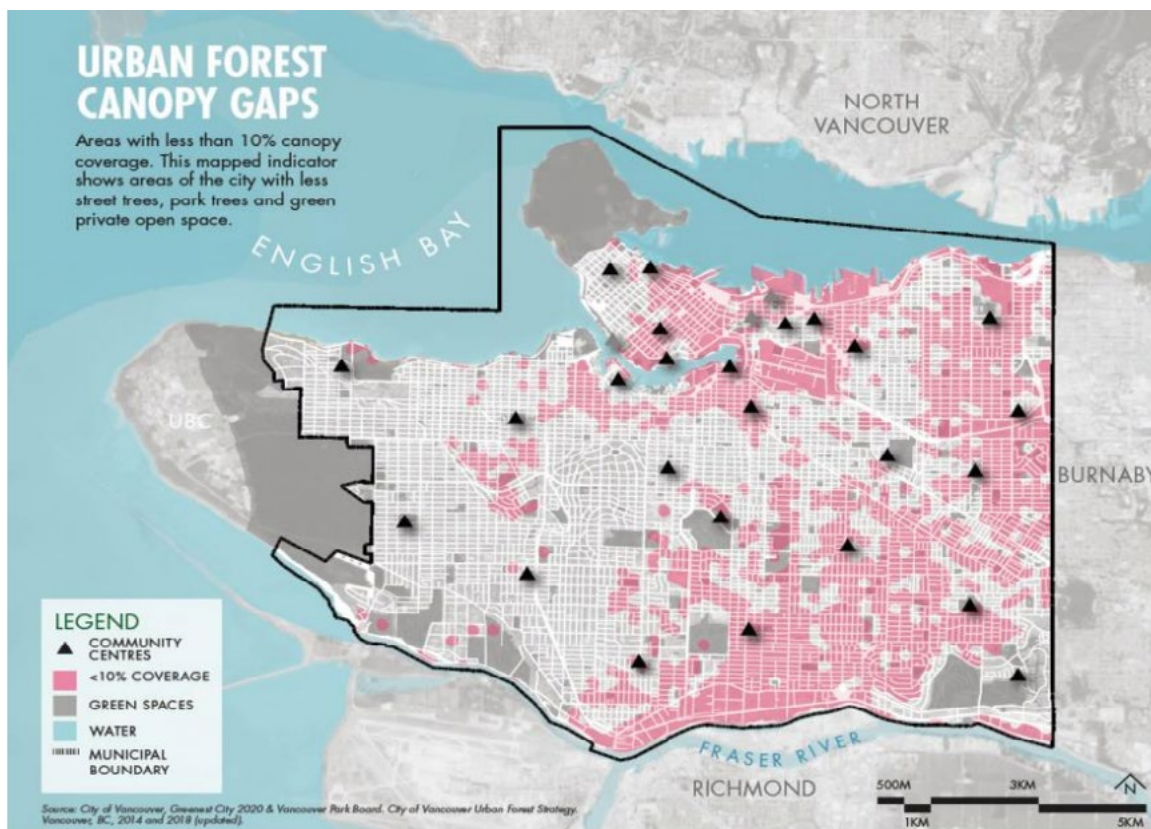
While the City of Vancouver has had an extreme heat plan for over a decade, this plan had previously focused exclusively on City-led actions to mitigate and respond to extreme heat – including establishing Cooling Centres and Community Centres, and deploying drinking fountains, and other cooling infrastructure. While these interventions are part of best practices, the Heat Dome illustrated significant gaps in prior plans. In 2021 and early 2022, staff from the Vancouver Emergency Management Agency led engagement work with populations disproportionately impacted by extreme heat to better understand how to ensure that all people feel safe and supported during extreme heat events in the future.

Many recommendations came out of these sessions, though high-level take-ways were:

- Extreme Heat planning must take an equity-based approach, tailoring supports to the needs of those disproportionately impacted by extreme heat. E.g., Seniors and People with Disabilities need to be able to cool in place. Centralized Cooling Centres are not accessible for many people who most need cooling supports.
- Spatial-inequalities between neighbourhoods must be examined, and staff must pursue place-based planning and supports in recognition that amenities and cooling infrastructure are not spread throughout the City equally. Some neighbourhoods face hotter temperatures, and have older buildings not equipped to keep residents cool.
- The City must invest deeply in planning collaboratively with community partners, supporting capacity-building initiatives led by community, and sharing information in transparent and inclusive ways. Community is leading the way, and designing solutions that directly support equity-denied communities.
- With these lessons in mind, staff sought to leverage the Resilient Neighbourhoods Program to partner with community-based organizations in neighbourhoods across Vancouver to support the development of unique, place-based plans and actions that directly leveraged existing capacities, and support those disproportionately impacted by extreme heat in the summer of 2022.



The City of Vancouver's Urban Heat Map pinpoints the neighbourhoods of South and East Vancouver, and the Downtown Eastside as having the hottest street-level temperatures in the city.



Vancouver Plan Urban Forest Canopy Gaps, with areas of least canopy coverage in pink.

LESSONS LEARNED – CITY OF VANCOUVER

In 2022, the City of Vancouver had 3 Level 1 Heat events. In response to lessons learned from the 2021 Heat Dome as well as pre-planning efforts in 2022, the City took the following actions:

- Provided support to residents in staying cool at home by the distribution of over 1,500 cool kits through community partners and City non-market housing.
- Provided Indoor Cooling Centres & Culturally Safe Cool Spaces throughout the city. This included 39 Cooling Centres at both civic and non-civic locations.
- Increased outdoor cooling through shaded parklets, increased tree canopy, 16 misting stations, and spray parks.
- Increased access to drinking water through permanent and temporary water fountains and bottled water distribution.
- Increased resources for community-based organizations and improved collaborative partnerships through 12 service agreements and 9 Resilient Neighbourhood Grants, as well as coordination calls and information sharing.
- Hosted multiple workshops leading up to the summer in 2022 to support local organizations in developing their own extreme heat plans, and form a Community of Practice.
- Provided extensive public information to residents via maps, heat tips, alerts, and resources that were translated into top 7 languages of the Vancouver area.
- Worked closely with Vancouver Coastal Health and BC Housing to collaboratively plan and prepare for extreme heat.

Type	Actions	City Lessons Learned
Cooling at Home	<ul style="list-style-type: none"> • Cooling kits • Mechanical Cooling in NMH 	Cool kit logistics challenging
Indoor Cooling	<ul style="list-style-type: none"> • Cooling centres/rooms (roughly 30 CCs and Libraries) • Culturally safe cooling spaces 	Difficult to collect data on cooling centre use
Outdoor Cooling	<ul style="list-style-type: none"> • Shaded parklets • Increase tree canopy • Misting stations, pools and spray parks 	Significant spatial inequities
Drinking Water	<ul style="list-style-type: none"> • Permanent and temporary fountains • Bottled water distribution 	Ongoing hydration gaps
Community Partnerships	<ul style="list-style-type: none"> • Service agreements • Resilient neighbourhood grants • Information sharing 	Funding processes need to be streamlined and simplified + more and sustained
Public Messaging	<ul style="list-style-type: none"> • Maps, heat tips, information, resources - translated into top seven languages 	Translated materials performed significantly better on social media vs. non-translated info

Coordination Call Process

Throughout the summer, the City receives notifications from Environment and Climate Change Canada about anticipated or potential heat events. There is rarely more than a couple of days notice for these events, but in 2022, the City made efforts to immediately forward these notifications on to community partners by email.

If and when Heat Warnings or Alerts were triggered by Environment and Climate Change Canada, the City hosted internal coordination calls with departments to initiate response plans, and in 2022 staff piloted following these internal coordination calls immediately with Community Network Coordination Calls to share up-to-date information, troubleshoot challenges, and exchange information and approaches to heat response with community partners.

The City of Vancouver's actions in response to heat events in 2022 also revealed some key learnings and challenges that staff will continue to work on and adapt for future events such as:

- Cool Kits were popular with residents, but the logistics of procurement and creating Cool Kits proved challenging for the City.
- Difficulties were encountered in the collection of data on Indoor Cooling Centre use. Cooling Centres in some cases are the entire facility, operating as normal. This made it challenging for staff to identify whether people were attending the Cooling Centre, or other ongoing programs. Asking or surveying attendees was seen to conflict with the City's Access without Fear policy.
- With access to outdoor cooling and drinking water, significant spatial inequities continue to persist in the city in regards to tree canopy, green space, shading, spray parks, and hydration stations. In particular, neighbourhoods in South and East Vancouver have lower levels of urban tree canopy and less robust green space.
- Accessible and low barrier transportation to cooling centres and cool spaces for residents with limited mobility and medical needs remains a challenge. Some neighbourhoods, particularly South and East Vancouver, have more sparse public transportation corridors.
- Community Partners are doing a lot of heavy lifting and need to be resourced and supported. Funding amounts to community partners should be increased to enable long-term, sustainable and flexible planning, while funding processes must be streamlined and simplified to create community partnerships that are adequately resourced to effectively support vulnerable residents and equity denied populations through heat and other emergency events.
- Translated (e.g., non-English language) heat materials and messaging performed significantly better on social media than English language information.

LESSONS LEARNED – COMMUNITY PARTNERS

The City of Vancouver is deeply grateful for the work all community partners conducted around extreme heat in 2022. The City recognizes the essential role that community organizations play in building resilience and wellbeing day-to-day, and the critical and often unacknowledged role community organizations take on to support communities during emergencies. During crises, people go to the places, programs, services, and people they know and trust for help – especially residents who have been denied equity in society, and faced systemic discrimination in accessing government-run services. In disasters, community organizations mobilize and respond quickly, utilizing in-depth local knowledge, long standing connections, and relationships of trust with residents to provide targeted, inclusive, and caring supports that go the extra mile in meeting the needs of community. Community partners also share critical information with the City of Vancouver that shines the light on gaps in services and ways to adapt City programs and services to better meet the diverse needs of residents equitably.

In 2022, community partners undertook an extensive number of heat actions and programming in 2022 to best support their unique neighbourhoods and communities. Key populations that were the focus of outreach and support were seniors, houseless residents, medically complex individuals, and low-income residents.

Heat actions broadly included:

- Conducting wellness checks throughout the summer for over 1,600 people.
- Distributing over 1,500 Cool Kits procured by the City to people most in-need.
- Creating 100s more Cool Kits to meet demand and adding electrolyte powder, N95 masks, sunscreen, baseball hats, and other critical supplies.
- Distributing over 1,000 fans and evaporative coolers to individuals in hot buildings without cooling.
- Setting up cool spaces in community facilities and animating them with food, games, movies, and other activities to draw people in.
- Transporting people to Cooling Centres using shuttle buses.
- Installing air conditioning, outdoor shading, and other physical cooling mechanisms.
- Connecting Elders to land-based cooling by taking them to forests and lakes. v
- Training peer-networks to conduct heat check-ins and establish Heat Buddy systems.
- Building awareness and training residents in multiple languages to understand heat risks and take action.
- Setting up and stocking Community Coolers with cold drinks.



Resident using misting station.



Gordon Neighbourhood House staff member displaying the contents of a 'Cool Kit'.

Community Partner Highlights

From June through August 2022, partners delivered unique supports based on their own capacity and the needs of their communities. Below are snapshots of what each organization did to build resilience in their communities in the face of extreme heat.

The Vancouver Aboriginal Friendship Centre Society distributed pamphlets with cooling tips, 200 Cool Kits, and water. Their outreach team distributed water at nearby Grandview Park and the encampments. Staff worked to make their buildings, housing, and shelter space cool and comfortable for elders, tenants, youth, guests, and community members. The Vancouver Aboriginal Friendship Centre Society worked to ensure residents in their buildings and shelters had functioning air conditioning and fans, and also purchased around 500 fans for community members through program funds. Concerns for the wellbeing of the pets of tenants, community members and shelter guests were raised during the heat events, prompting the Friendship Centre to provide information on cooling tips for pets. With the area around their centre providing little shade, they opened their doors to community members to cool down, putting out chairs in their foyer for folks to rest and hydrate. Power outages in nearby apartment buildings also impacted community members, resulting in food spoilage and the loss of traditional foods. The Friendship Centre provided families impacted by the power outage with a food hamper and a gift card to help them replenish what was lost. Through additional funding, they were able to support some residents in getting new fridges. They offered land-based cooling and trips to outdoor locations such as lakes, rivers and forests to members staying at the Friendship Centre shelters, the transition house, as well as partner organizations. The Friendship Centre also reached out to Earnest Ice Cream and were given vouchers for community members to receive free ice cream on hot days. Faith-based organizations, specifically the Vietnamese Buddhist temple and the Maitreya Buddhist Temple, offered assistance several times to community members at the Friendship Centre and residents of the Skeena Transition House, handing out water and popsicles.

Britannia Community Services Centre provided in person and virtual heat preparedness workshops in partnership with REACH Medical Clinic. They operated a Cooling Centre with the Britannia Library and Britannia Community Centre, and the used their Fitness Centre to serve as a Cooling Centre after hours. Staff phoned vulnerable households to provide heat tips and cooling information, as well as an emergency contact. Britannia Community Services Centre distributed 80 fans and filters to vulnerable households.

Cedar Cottage Neighbourhood House engaged in outreach on heat information and tips to help people to stay cool. They distributed City of Vancouver Heat materials, and added a sticker to let residents know they could reach out for a Cool Kit if they needed. They worked with their Summer Students and Family Workers spread heat awareness and share cooling tips and resources. Staff and Seniors Hub volunteers distributed Cool Kits from a neighbourhood park, and put up posters in locations where residents most impacted by heat could access the information. The Cool Kits were popular, especially among seniors. Seniors Hub volunteers identified 3-5 vulnerable seniors on their street and followed up with either a Cool Kit delivery or a phone check-in. Cedar Cottage Neighbourhood House set up fans for cooling their space, which was hot at times. They also approached local organizations to form a neighbourhood committee on heat response, noting the need to have multiple partners assist in the distribution the Cool Kits.

Collingwood Neighbourhood House focused their heat outreach and programming mainly to seniors, as well as under-housed residents. They organized multiple popular heat awareness seminars and workshops for seniors groups in the neighbourhood. They found the heat awareness information and materials provided by the Provincial Government and the City of Vancouver to be helpful, especially in multiple languages. Staff and volunteers assembled 150 Cool Kits. Cool Kits were distributed primarily at Collingwood Days in July, as well as through multiple Collingwood Neighbourhood House programs. The Cool Kits were very well received, especially the cooling towel and the large thermometer. Staff also distributed the Cool Kits in buildings with seniors, as well as put up pamphlets with heat tips in the lobby and on bulletin boards. While some buildings had AC in the activity rooms, many did not have cooling throughout the apartments and staff observed that some areas were unbearable for residents. Collingwood Neighbourhood House purchased 50 small 8x8

evaporative coolers and distributed them to vulnerable clients in particularly hot buildings. They found that these mini coolers were helpful in providing some relief to residents with blowing cold air, though not nearly as effective as an air conditioner. For homeless and under-housed residents taking part in the weekly Saturday morning breakfast program, Collingwood Neighbourhood House handed out cooling supplies, finding it more helpful to break down the Cool Kits and hand out individual items that were easier to carry, such as bottled water and cooling towels. Collingwood Neighbourhood House also opened its own cooling space to support seniors, families, and under-housed resident who needed refuge from the heat. The air conditioned space had water and snacks and was well utilized by residents, as many seniors were already coming to the centre for programs and additional entertainment such as movies and free food was provided.

Downtown Eastside Neighbourhood House provided heat supports to many community members, including people with low income, disabilities, addictions, mental health challenges, under-housed or homeless residents, socially isolated residents, and Chinese seniors. They used their facility to provide a cooling space and extended their hours of operation. While the DTES Neighbourhood house observed that facility-based respite programming was less effective than outreach activities during heat events, they also found that heat response enhancements to existing programming was very effective. This included setting up a corner of their drop-in program space to be devoted to activities like water distribution and heat response-related information dissemination. Staff and volunteers posted and distributed heat information in multiple spaces and locations, and found the translated information from City of Vancouver and other non-profit partners to be useful. They provided ice and support to residents who were feeling increased anxiety from the heat. Staff and volunteers formed teams and distributed bottled water along Hastings Street, especially in the newer encampment and the Crab Park encampment. They worked with a summer nursing student to create a handout for residents with cooling tips. At the Hastings Urban Farm they setup shade tarps in the area surrounding the farm and misters around the perimeter fence. They invited people in to rest in the shady areas during program times, and partnered with 10 community organizations at the farm project to distribute water, and share information and resources to address extreme heat. The Downtown Eastside Neighbourhood House also worked with the Food Hub, as it served as a great point of access for residents in the Main and Hastings area. The DTES Neighbourhood House connected with 650 people through their outreach efforts and activities.

Frog Hollow Neighbourhood House worked with their Youth Advisory Committee to undertake a variety of youth-led heat actions, and found it to be a great way for the youth to connect with the Hastings-Sunrise neighbourhood. They focused outreach and support on houseless residents, lower income families, and seniors. They partnered with the Vancouver Public Library Hastings Branch, which was acting as a Cooling Centre. The Youth Advisory Committee assembled 144 Cooling Kits for distribution, including supplies and a neighbourhood-specific map of cooling resources and spaces. They also handed out reusable water bottles and used the water bottles as an opportunity to invite people to come in to library to cool down and refill their water bottle. While Cooling Kits were welcome, staff and youth found that many residents declined the cooling kits initially, stating that they felt someone else could better use it. “Most folks didn’t know what a cooling centre is and didn’t know they could just come in to the library and sit down. A lot of our conversations with residents passing by focused on explaining what a cooling centre was and what a misting station was. People didn’t feel comfortable just coming in and using the Cooling Centre. But if given the water bottle and invited to come in to fill it up, folks felt more comfortable”, stated Orissa Meyrlink, Youth Services Coordinator for Frog Hollow Neighbourhood House.

Gordon Neighbourhood House provided heat programming and cooling supports to seniors, people that live alone, families, and unhoused residents. They provided info and distributed Cool Kits via neighbourhood house programs, as well as in multiple apartments across the West End. Gordon Neighbourhood House also offered outdoor cooling through misting stations and a water feature for kids, signage for forecast and cooling centre directions, and wellness checks. A particularly effective program was the creation of 3-4 Community Coolers in different parts of the neighbourhood. The misters were also a hit. Workshops were held with seniors to share heat tips and trivia. Residents appreciated the heat information and cool kits, felt connected through phone calls and in-person wellness checks, and felt an increased sense of belonging and cooperation. “We are very

proud of our neighbours for how they picked up this work. Once the seed was planted, they took responsibility for it. And they're keen to do more", stated Siobhan Powlowski, Executive Director of Gordon Neighbourhood House. With more than half of their residents using some form of active transportation, Gordon Neighbourhood House observed that some residents were getting caught in the heat without access to cooling resources as they went about running errands or moving through their neighbourhood. These included seniors, residents with health conditions, indigenous residents, and newcomers. As a result, Gordon Neighbourhood House will be looking into ways to bring First Aid and alternate forms of refuge out to residents who may suffer health impacts from heat exposure while walking or biking. Observing that many families in the neighbourhood do not have access to backyards for shade or water features (such as garden hoses, sprinklers, wading pools) to cool, more public water parks and misting equipment would benefit people of every age.

Kitsilano Neighbourhood House focused on providing cooling information and resources to aging adults and seniors, and utilized their facility to provide a cooling space for seniors and families. A room was booked out for heat events, with an air conditioner installed, along with large industrial fans, resting mats, bottled water and other comforts. Mistifiers were set up outside of the drop-in space for outdoor cooling. "Those already engaging in our services found a safer place of belonging and it disrupted the fear narrative. Our existing membership of 2000+ were able to continually lean on our organization to navigate heat response", stated Teddy Chan, Executive Director of Kitsilano Neighbourhood House. The importance of working with other community organizations to help bridge those resources needed by residents and to provide additional volunteers was key learning for the Kitsilano Neighbourhood House.

Little Mountain Neighbourhood House provided heat-related supports to diverse community members and program participants. These supports ranged from providing education on heat illness and how to stay cool at home, providing water and cold snacks for program participants and clients to cool down, and providing information on extreme heat resources in the community. They emphasized the importance of long-term relationship building and identifying organizations and locations that are familiar and trusted by the residents they are trying to support. They are building a network across the community of local businesses, faith communities, service providers, and organizations to provide collective support during heat and other climate change related events. Throughout the summer and early fall of 2022, staff at Little Mountain Neighbourhood House developed an Extreme Heat Preparedness Team, which included hiring a Heat Response Coordinator, to begin the process of creating an Extreme Heat Plan for the organization. They worked with Vancouver Coastal Health to provide heat preparedness education and heat check-in training for staff. Staff also developed a master list of individuals who are at high risk for heat-related illness in their neighbourhood, collecting consent and contact information to facilitate heat-check in's during future extreme heat events.

Marpole Neighbourhood House supported vulnerable seniors to stay cool in place and at home. Given that some apartment buildings had stairs that posed a challenge for seniors with mobility issues, the focus was to find ways to support those individuals to be in their own spaces and get the resources to them. A lot of effort was put into distributing the Cool Kits and checking in with home bound residents. Staff worked with older adults to check in and connect with more vulnerable seniors living in apartment buildings. "The ability to bring community together to share learning and provide resources for older adults with capacity to support their neighbours was inspiring and had a powerful impact", shared Nilda Borrino, Executive Director of Marpole Neighbourhood House. The Marpole Neighbourhood House also extended the hours of their indoor cooling space, but found that it was not utilized as much as expected. However, the misting station outside of the facility was used heavily throughout the summer. The Neighbourhood House put a fridge outside their entrance and filled it with free water, electrolyte drinks, and ice packs. The fridge was very well used, and a challenge to keep stocked.

Mount Pleasant Neighbourhood House completed multiple phone wellness checks with over 400 seniors. The wellness check calls were made by staff and practicum students. The Mount Pleasant Neighbourhood House also extended their hours of operation during heat events, opening on weekends and holidays with heat warnings. They offered transportation to indoor cooling spaces, but only had a few residents use transportation

support. A neighbourhood map of cooling resources was created and shared with multiple community partners. Efforts were made to increase user access to outdoor cooling spaces at the Neighbourhood House. “A simple change was to add benches in the shaded areas at our house, and these were heavily utilized”, said Claudine Matlo, Director of Seniors & Family Services for Mount Pleasant Neighborhood House.

South Vancouver Neighbourhood House focused heat outreach and supports on underserved and racialized seniors in residential buildings and through their existing programs. They developed new connections and partnerships with senior housing managers and residents, organizing popular low barrier outreach and social events for seniors in communal building spaces that provided refreshments and Cool Kits. They brought the resources to where people were living, and residents enjoyed the mobile programming and supports. Tools to “Cool in Place” were extremely useful in their community, due to the sparseness of Cooling Centres, limited transportation options, and a challenging geography to navigate. The heat events also served as an opportunity to connect people to the neighbourhood house and its programs. They also organized heat events and shared information through their existing programs, including language specific peer-lead workshops with their Cantonese Wellness, South Asian Men’s and Women’s Wellness, and Intercultural Wellness groups. “The Cool Kits were a huge success and the resources City of Vancouver provided were fantastic. I appreciated all the languages they were translated in”, stated Jeannie Furmanek, Community Based Senior Services Lead at South Vancouver Neighborhood House. In apartment buildings, South Vancouver Neighbourhood House staff worked to connect neighbours with each other, improving resilience in the building and reducing social isolation through a buddy system. South Vancouver Neighbourhood House partnered with Seniors Hub Council members to create peer-led senior focused presentations and engagement, working with local seniors to create presentations and to teach other seniors how to make their own cool kits at home. When it came to Cool Kits: “The thermometers were invaluable, with large numbers that were easy to read”, shared Furmanek. “Thermometers were so helpful in knowing the temperature in your home and for gauging when you might be in a heat emergency. The seniors really liked them”. The South Vancouver Neighbourhood House also updated their Seniors Hub website with heat information and sent out a special Heat Ready e-newsletter bulletin to around 300 seniors. Their outreach and workshops reached over 500 seniors in their area.

RECOMMENDATIONS FOR CITY OF VANCOUVER HEAT PLANNING

Recommendations for improvements to the City of Vancouver’s extreme heat programs, services, and planning include:

- **Short-term recommendations** such as increased emergency planning, provision of cooling equipment other response supports, and increased and sustainable funding to allow community partners to retrofit their facilities and scale up their staffing and services to better respond to future extreme heat events.
- **Long-term recommendations** such as increasing heat resilience of buildings and infrastructure, and decreasing the heat island effect through increased green space, tree canopy, water features, and light colored surfaces.

The following recommendations were identified through the 2022 Heat Planning Lessons Learned event:

- **Clarity of Messaging around Heat Wave Activations and Cooling Centre Triggers:** More clarity on the distinction of the different levels of heat waves and how that affected the activation of cooling centres was requested. Gordon Neighbourhood House shared that residents were not always sure when Cooling Centres would be open depending on different kinds of heat and temperature thresholds. “For people living unsheltered in the community, consistency was needed as to when they could expect cooling centres to be open”, explained Siobhan Powlowski, Executive Director of the Gordon Neighbourhood House.

- **Increased Funding Amounts & Sustained Funding for Resilient Neighbourhoods Partners:** The majority of the partners expressed the need for increased funding from City of Vancouver. Staffing and the ability to extend hours of operations were consistently listed as challenges in supporting residents through heat events. “Hours of operation are the biggest limiting factor. We are not at the same hours of operation as pre-pandemic. So we aren’t able to provide that support to people particularly on weekends or later in afternoons. If a heat wave happened between Monday or Friday we were good, but not if it was on the weekend. That was challenging for us”, explained Siobhan Powlowski, Executive Director of the Gordon Neighbourhood House. Cedar Cottage Neighbourhood House also pointed to the need for sustained funding in supporting popular cooling actions such as the Cool Kits: “How can organizations continue to circulate Cool Kits without sustained funding?” Little Mountain Neighbourhood House also shared: “This problem is not going away, and will only get more severe. We really need more robust local responses, and to do that we need more substantial resources to have staff, build capacity, and anchor this work throughout the year”.
- **Increased Access to Water and Cooling Infrastructure in the DTES and other Underserved Neighbourhoods:** The DTES Neighbourhood House shared that their community needs more support to update service infrastructure, housing, and create neighbourhood assets that reduce the impact of heat events, such as shaded parklets and public water sources. “More fountains would help, especially near locations where people are lining up for food to help folks have access to water”, said Maria Gaudin of the DTES Neighbourhood House. While some neighbourhood houses had positive results from distributing re-usable bottles, bottled water was found to be more user-friendly for specific equity-denied populations, such as houseless residents. “If we gave out reusable bottles, folks on the street have less access to fill those up. They also have security issues about leaving their tent to go search for water”, explained Gaudin of the DTES Neighbourhood House.
- **Better collection points for discarded water bottles in the DTES:** Both re-usable and disposable water bottles were discarded in large numbers in the neighbourhood and better collection points are needed to manage and recycle the waste. Both types of water bottles are needed moving forward to accommodate the needs of residents.
- **Misting Station at the Vancouver Aboriginal Friendship Centre:** The Vancouver Friendship Centre is located along a corridor with very little shade or cooling infrastructure. A misting station at the Friendship Centre would be a great addition to providing outside cooling space and supporting community members, clients, and nearby residents.
- **Adding Shading to Clinton Park:** Frog Hollow Neighbourhood House shared that while Clinton Park has a wading pool, it does not have any shady places to sit in the park. Adding additional shade features or shade structures to the park would allow residents to safely enjoy an outdoor cooling space.
- **Increased shade, green spaces, and water fountains** would help with outdoor cooling and water access in South Vancouver neighbourhood.
- **Funding for Mechanical Cooling (air conditioning or heat pump upgrades) for non-profit facilities and community spaces:** Several partners mentioned that their spaces were hot during the heat events, and that they were only able to partially cool them through the use of fans. In some cases, organizations had to cancel programming due to unsafe indoor temperatures. Funding to purchase fans was also mentioned by several neighbourhood houses.
- **Pet Cooling Tips and Pet Cool Kit supplies:** The Vancouver Aboriginal Friendship Centre raised the important issue of supporting pets through heat events as their tenants, community members and shelter guests may have pets. They noticed that many dogs and cats were very hot. They recommended adding something in the Cool Kits for pets, sharing Heat Tip messaging and outreach on creative solutions for keeping pets cool, and potentially partnering with animal centered organizations (like the SPCA or pet stores) for programming and cooling pet donations.

- **Cooling Supports and First Aid for Residents Utilizing Active Transportation:** In neighbourhoods where many residents are using active forms of transportation (like walking and biking), there is a need to provide cooling supports and first aid for heat illnesses. First Aid training for staff and volunteers of non-profits has been requested as a way to support members of the community utilizing active transportation who may become stranded along their route due to health impacts from heat exposure. “Many people cannot remain in place over the entire course of the day”, explained Siobhan Powlowski, Executive Director of Gordon Neighbourhood House. “We need to have ability for people to seek emergency refuge when they get caught out in the heat. Cooling infrastructure at bus stops could help”.
- **Increased Resources to Support Cooling in Place:** Multiple organizations found that supporting seniors and people with disabilities to stay cool at home was more effective than trying to get seniors to utilize Indoor Cooling Centres. Several partners had increased success with engaging and supporting at-risk residents by offering mobile supports and bringing services to their residential buildings. Providing additional supports and innovative programs to support residents in staying cool in place and within their buildings should be explored and supported.
- **More information on best practices around peer-to-peer support:** our neighbours are first responders. Place-based and peer-to-peer support networks often identify issues before formal First Responders are called in (e.g., neighbours helping neighbours on the same apartment building floor) can be expanded upon and supported by community organizations. Some reported being unsure how to encourage neighbours to help each other, or identify those at risk while not causing opportunities for potential abuse.
- **Engage partner cultural organizations to provide activities at Cooling Centres:** To ensure that Cooling Centres are welcoming and safe places for equity denied residents to seek refuge from the heat, it is important to work with organizations such as the Vancouver Friendship Centre and other cultural partners to provide culturally relevant and safe programming at Cooling Centres.
- **Increased alerting for Resilient Neighbourhood Partners:** Text alerts from VEMA to the core group of community partners would be helpful to supporting their planning and actions.
- **Increased coordination between the Neighbourhood Houses, City of Vancouver, Vancouver Public Library, and Park Board:** on the issue of hydration and access to the hardware needed to stand up water access points, such as misters. There is currently more demand for cooling assets like misting stations than there are assets. Look at creative ways to expand upon these.
- **Assistance with procurement of key cooling supplies and services prior to heat events:** in preparation for the upcoming 2023 Heat Season, several community partners requested that City of Vancouver assist in procurement of supplies and services in advance of heat events. Supplies could include large amounts of bottled water, air conditioning units, fans, Cool Kit supplies, and more. Services could include contracts for air conditioning repair. Some partners encountered supply shortages for items like fans and water when they tried to purchase right before or during the heat event.
- **Engage Faith Organizations in Providing Additional Cooling Supports:** several community partners mentioned that faith-based organizations had offered cooling supports, either through distribution of water or by opening their doors as a cooling space to residents in need. Engagement of faith organizations would be helpful in identifying future community partners in cooling efforts, as well as mapping additional supports at the neighbourhood level.
- **Training support:** providing training to assist staff and volunteers in heat awareness and in providing support to equity denied populations and residents at risk of adverse heat impacts was requested. Training could include how to best support houseless and under-housed residents in heat response, as well as First Aid training for heat response. Another request was for training and information to help prevent potential elder abuse during wellness checks.

CONCLUSION

In 2022, the City of Vancouver and community partners worked together to provide a wide range of heat actions and programming in 2022 to support residents disproportionately impacted by extreme heat events. As the summer of 2023 approaches, the City of Vancouver will apply the lessons learned from previous heat events, and engage and expand its community partnerships to best support residents. As Climate Change intensifies hotter, drier conditions during our summers, the City commits to continually building upon this rich foundation of work. Moving forward, staff will examine ways of increasing and developing sustainable funding for this work, while creating space for the City and partners to collaborate on other resilience challenges, recognizing no one challenge stands alone, and no single organization has all of the answers. Finally, the City would like to thank all of our partners for the work reflected above. It is deeply rooted in collaboration, community care, and relationships based on trust. This work is community resilience in action.

APPENDIX A

Resilient Neighbourhoods Program Pilot

In 2016, Vancouver's Emergency Management team began exploring alternative ways of engaging in emergency preparedness. The core shift was moving away from asking "what" is in our emergency kits and instead asking "who" is in our emergency kits. Decades of academic research and lived experiences of communities around the world point to social connection, cohesion, and capital being paramount in disaster response and recovery.

In 2017, the City launched a pilot of the Resilient Neighbourhoods Program to build upon the idea above and expand beyond just emergency preparedness. Through the pilot, the City directly partnered with four organizations in four different neighbourhoods to identify and build on services to enable neighbourhoods to thrive day-to-day, and consider how these assets might transform to meet community needs during emergencies and disasters. This collaborative process focussed on transforming how both the City and community partners collectively think about and plan for shocks (acute events like heat waves and earthquakes) and how these are interconnected with stresses (chronic issues like social isolation, racism, and aging infrastructure).

In order to do this work, the City embedded resources in each community-based organization to collaborate with City staff, and fund supplies, workshops, and other activities. Partners included Collingwood Neighbourhood House, 312 Main, Britannia Community Services Centre, and the Dunbar Community Centre Association. Each organization identified unique shocks and stresses that were of greatest concern to their community, and developed social and physical asset maps, and Neighbourhood Resilience Action Plans to tackle these pressing challenges.

Over the two and a half year pilot, participants worked through an emergent process and ultimately developed a framework to integrate neighbourhood-level efforts related to climate adaptation, emergency preparedness, community connection, and equity. A core feature of this work was sharing experiences, approaches, and knowledge across neighbourhoods, and aligning with grassroots efforts to enhance community wellbeing. Each organization took action that was meaningful within the context of their own neighbourhoods and communities, and demonstrated tremendous knowledge, capacity, and innovation.

While this work was temporarily paused in 2020 due to the COVID-19 Pandemic, it has been re-launched and strengthened in the wake of this global public health crisis, and the Heat Dome in 2021. The Vancouver Emergency Management Agency's Resilience and Disaster Risk Reduction Team stewards this program. Moving forward, this program will be:

- Community-led, City-convened
- Equity-based- ensuring that disproportionate supports are provided to those who experience disproportionate impacts of shocks and stresses.

- Relational – seeking to create and enhance connections and collaboration between neighbourhoods, and between community and City initiatives.
- Employ asset-based and place-based approaches – while addressing gaps.
- Reimagine structures that can get in the way of this work

APPENDIX B: Resilient Neighbourhoods Grants

In addition to the work captured above which was a two-way collaborative effort between the City and community partners cited above in this report, the City also distributed a set of Resilient Neighbourhoods Grants to support community-based organizations address physical gaps in cooling infrastructure, and support peer-based networks. A summary of these grants is contained in the following table:

#	Organization	Actions
1	Distro Disco	Funding supported training volunteers and peers, providing resources (bus fare, first aid, and more) and distributing emergency heat supplies (shade, water, coolers, medical supplies) via mobile delivery.
2	Dudes Club	Funding created outdoor access to green space and reduce overall surface temperatures and improve air quality on the V6A block of the DTES. Project will also enable peer-based monitoring, support, and social connection for community members in the DTES.
3	Hives for Humanity	Funding supported coordination, monitoring, and enhancement of outdoor garden spaces with additional shade and water to provide cooling. Project will also share maps of other cool spaces (indoor and outdoor), accessible washrooms, water stations, and more for community members in the DTES.
4	Hope in Shadows Society	Funding used to purchase and distribute of summer wellness kits, water coolers, a small deep freezer for cool packs, room and space costs for training, and other supplies, and peer-based supports.
5	Baha'i Foundation	Installation of Heat Pump and air conditioning for family programming space serving Urban Indigenous and refugee families in Strathcona, the DTES, Grandview-Woodland and Killarney
6	Atira Women's Resource Society	Grant enables purchasing and installation of: - Four portable air conditioning units for Sister-Space harm reduction site - Four portable air conditioning units for Enterprising Women Making Art drop-in art studio - Three portable air conditioning units for Bette's Boutique respite space.
7	Heart Tattoo Society	Grant supported purchasing of: - Indoor misting fans - Misting backpacks to support cooling within the DTES
8	SRO Collaborative Society	Grant enabled preparation, education and implementation of critical outreach and support services over the summer and during any heat events to: - Purchase of materials, preparation and distribution of cool packs and resources. - Tenants in 46 privately-owned SRO Hotels that are home to a high proportion of at-risk residents (approx. 2300 residents). - Provide comprehensive first-aid training of 100 tenant volunteers, including multilingual training. - Creating capacity to support other funding partners and/or private owners to create and staff emergency cooling rooms in Private SROs.
9	VANDU	Grant enabled preparation, education and implementation of critical outreach and support services over the summer and during any heat events to: - Provide training for members who will then map access to drinking water and conduct a comprehensive study of washroom access and locations were drinkers can consume alcohol safely. - Complete research on how the built environment can be improved to support drinkers in the DTES, explore options for re-establishing a drinker-specific outreach program, and ensure heat-related supply distribution to people known in the community as illicit drinkers at risk of harm.