Climate Resilience Hubs Report

August 28, 2025

King County

Contents

I. Proviso Text

P1 PROVIDED THAT:
Of this appropriation, $100,000 shall not be expended or encumbered until the executive transmits a climate resilience hubs report. The report shall include, but not be limited to:

A. King County's progress on developing resilience hubs; including a plan for community engagement;

B. The results of collaboration through the King County - Cities Climate Collaboration, also known as K4C, and other partnerships to identify potential hub partnerships and locations in incorporated areas; and

C. A proposed timeline for next steps which may include identifying additional sites, evaluation of sites, and anticipated resource needs informed by local, regional, and national best practices.

The executive should electronically file the report required by this proviso by September 1, 2025, with the clerk of the council, who shall retain an electronic copy and provide an electronic copy to all councilmembers, the council chief of staff, and the lead staff for the transportation and environment committee or its successor.

Ordinance 19861, Section 18, P1[1]

[1] Ordinance 19861

II. Executive Summary

This report summarizes King County's progress in advancing resilience hubs, which are trusted, community-serving spaces designed to provide support before, during, and after emergencies. While King County does not operate designated resilience hubs, it is actively investing in core components through clean energy upgrades, public health initiatives, emergency shelter planning, and partnerships with community-based organizations. These efforts align with the 2025 Strategic Climate Action Plan, the 2024 Extreme Heat Mitigation Strategy, and the Regional Operational Plan for Extreme Weather Sheltering.

Resilience hubs are physical spaces that serve communities during times of disruption and throughout the year. They provide essential services such as clean air, heating and cooling, food and water distribution, device charging, and medical supplies, while also serving as year-round trusted locations for community gathering, training, and preparedness programming. Grounded in a holistic, community-centered approach, resilience hubs are most effective when co-designed with and led by local organizations and residents, and supported by sustained investment, trusted relationships, and clear governance protocols.

Interest in resilience hubs is growing due to increased risks posed by climate change. King County faces a range of compounding hazards (extreme heat, wildfire smoke, flooding, storms, landslides, and power outages) which are projected to intensify over the coming decades. These risks are not experienced equally; they disproportionately impact frontline communities including low-income residents, unhoused individuals, older adults, people with health conditions, and Black, Indigenous, and people of color (BIPOC) communities. Climate change is increasing the severity and frequency of these hazards, with average summer maximum temperatures projected to rise by 10.5°F by the 2080s.

In collaboration with the King County-Cities Climate Collaboration, the Executive Climate Office (ECO) engaged with local jurisdictions to assess hub readiness, identify potential sites and partners, and understand regional needs. This work finds that jurisdictions in King County are taking varied and locally grounded approaches to resilience hubs. Case studies highlight community-led and hybrid models that emphasize flexibility, equity, and place-based strategies. Cities such as Issaquah and Seattle are piloting models that combine government coordination with community leadership, and regional partners have expressed strong interest in further collaboration, peer learning, and shared tools.

While King County does not own or operate resilience hubs directly, the County is supporting critical hub components. Programs like the Climate Pollution Reduction Grant, Energize Program, and the Community Climate Resilience Grant fund infrastructure upgrades, energy resilience, and partnerships with community-based organizations. ECO is also working closely with the Office of Emergency Management (OEM) to support community resilience, particularly in rural and under-resourced areas. A phased plan for deeper community engagement and a proposed timeline for future work offers a path forward for regional coordination and continued investment. The findings and next steps outlined in this report lay the groundwork for collaborative, region-wide progress on equitable climate resilience.

Key Takeaways:

- While not operating or managing resilience hubs, King County is working on many components and building blocks of resilience hubs.

- Locally driven, community-centered models are emerging across the region.
- Effective resilience hubs require sustained and flexible funding, strong partnerships, and regional coordination.
- King County has a role to play in supporting community-led hub development.

III. Background

Department Overview: The Executive Climate Office (ECO) works to coordinate, elevate, and accelerate climate action across King County. Its mission is to build and empower a coalition addressing the causes and impacts of climate change, ensuring that all people, places, and environments thrive. ECO is responsible for integrating climate change into County operations and policies in partnership with other departments and working with cities, partners, communities, and residents on shared climate priorities. ECO manages King County's Strategic Climate Action Plan (SCAP); collaborates with county departments, frontline communities,[2] and other partners on climate-related work; and manages programs to promote decarbonization, climate resilience, and equitable access to green jobs.

In April 2025, ECO hired a new Climate Preparedness Coordinator position that quickly began to lead coordination, research, and engagement around resilience hubs in King County. This included working with the King County-Cities Collaboration (K4C) to assess King County's progress on resilience hubs, identify potential hub partners and locations, and develop a plan for future implementation and community engagement. The Coordinator supported interdepartmental collaboration to assess needs and criteria for resilience hubs and engaged with K4C members to assess King County's progress on resilience hubs and to identify potential locations and partners to support local climate resilience. These efforts align closely with King County's Office of Emergency Management (OEM), which provides direction, coordination, and support for County emergency services and sheltering operations before, during, and after disasters. OEM contributed foundational resources, staffing models, and documentation for cooling center operations and facilities, including their role in building long-term community resilience, as outlined in the 2024 Regional Operational Plan for Extreme Weather Centers and Disaster Sheltering (the Regional Sheltering Plan) (Appendix A).

Historical Context: King County has experienced a range of extreme weather events in recent years, including flooding, extreme heat, wildfires, landslides, windstorms, and prolonged wildfire smoke. These hazards pose critical challenges for local governments, particularly in ensuring emergency shelter for people experiencing homelessness, people displaced by hazards, and other vulnerable populations. For example, navigating blocked or damaged roads can isolate entire communities and maintaining access to power and ensuring clean air are critical to people's comfort, health, and safety.

Current Context: Climate change is increasing the risks associated with extreme weather events, leading to an increased focus on ways to support those with increased sensitivity to climate risks.[3] Average summer maximum temperatures in King County are projected to be +3.7°F (range: 2.5- 4.9°F) warmer by the 2040s compared to the historical average for 1980-2009. By the 2080s, average summer maximum

[2] Vulnerable populations include individuals who are low-income (below 80 percent of the median income), identify as racial or ethnic minorities, are members of Tribal communities, have limited English proficiency, or work in high-exposure environments (How We Define Frontline Communities in Policy Affects Their Lives - Front and Centered, 2024).

[3] Strategic Climate Action Plan - King County, 2025

temperatures exceed 80°F, warming +10.5°F (range: 7.4-13.0°F) relative to the historical average.[4] Extreme heat is the leading cause of weather-related mortality in the region and the entire nation and globe.[5] These events can coincide with wildfire smoke, compounding public health risks. Both hazards have disproportionate impacts on communities already facing systemic inequities, including low-income residents, unhoused individuals, older adults, people with pre-existing health conditions, and Black, Indigenous, and people of color (BIPOC) communities.

In addition to heat and smoke, King County faces other climate hazards such as intense winter storms, flooding, and prolonged power outages, all of which threaten public health, infrastructure, and service continuity. These impacts have elevated the need for increased community resilience and expanded options for providing safe, climate-resilient shelter and services during emergencies. This has traditionally included extreme weather shelters (i.e., cooling centers, warming centers). More recently, communities have also started to explore establishing resilience hubs, which are an emerging practice for supporting local resilience and community capacity to respond and recover from hazards, including the impacts of extreme weather.

County Climate and Community Resilience Strategies and Planning Frameworks

Cooling centers and resilience hubs are part of a broader effort to support community resilience that addresses both immediate climate risks and long-term social vulnerability. This approach recognizes that resilience is rooted in the daily conditions that shape community health and well-being. This includes access to housing, food, clean air, energy, and trusted support networks, as well as the capacity to prepare for, respond to, and recover from climate-related events.

Across King County, work to support community resilience includes actions to reduce exposure to extreme heat, expand access to cooling infrastructure in high-risk areas, and ensure that community-serving spaces are ready to operate during climate and public health emergencies. At the same time, King County's work emphasizes year-round investments in housing, food, and energy security, particularly for frontline communities. Building community resilience means strengthening these foundational systems while also preparing neighborhoods for the increasingly frequent and severe impacts of climate change.

This approach to climate and community resilience is guided and supported by several key strategies and plans, including:

- The proposed **2025 Strategic Climate Action Plan**, which integrates cooling and resilience investments across climate preparedness, public health, and equity goals, including through the Sustainable and Resilient Frontline Communities (SRFC) and Climate Preparedness chapters;[6]
- The **King County Extreme Heat Mitigation Strategy**, which outlines actions to reduce heat risk and improve access to cooling infrastructure and community-trusted cooling locations for priority populations;[7]

[4] In the Hot Seat. Climate Impacts Group, 2023
[5] NOAA, Severe Weather Awareness - Heat Waves
[6] Strategic Climate Action Plan - King County, Washington (2025)
[7] Extreme Heat Mitigation Strategy - King County, Washington, 2024

- The **2025 King County Regional Hazard Mitigation Plan**, which provides a strategic blueprint to safeguard the community and its assets from potential nature and human-induced hazards. The plan identifies the importance of cooling centers and supports the creation of spaces that share many characteristics of resilience hubs;
- The **Regional Operational Plan for Extreme Weather Centers and Disaster Sheltering** is an adjunct to the Comprehensive Emergency Management Plan (CEMP), Response Mission Area Framework, and various Emergency Support Function annexes. and sets standards for sheltering operations, facility readiness, and staffing models (Appendix A);
- The **Blueprint for Addressing Climate Change and Health**, which integrates equity and climate risk into health-focused adaptation planning;[8]
- The **2024–2029 Public Health – Seattle & King County Strategic Plan**, which outlines a department-wide approach to addressing pressing health challenges, including climate change, gun violence, overdose, and homelessness. The plan takes an anti-racist and equity-centered approach to public health in Seattle and King County. It prioritizes climate and health, workforce well-being, cross-sector partnerships, and community co-creation to strengthen core functions and build resilience across King County.[9]

Together, these efforts recognize the compounding risks of climate change and social vulnerability, and the need for coordinated, multi-sector solutions to build lasting community resilience. Implementation of these plans is underway, as discussed in this report. However, the future of funding and support on the federal level for this work is increasingly uncertain. Progress on implementing these efforts is likely to be impacted by the reduction, restriction, or loss of federal funding sources and programs such as the Federal Emergency Management Agency's (FEMA) Building Resilient Infrastructure and Communities grant program. Many other federal climate and equity-focused programs are being reduced, delayed, or eliminated entirely. This underscores the need for strategic, locally led efforts that do not rely solely on federal or state investments.

Legislative Context & Purpose of This Report

The proviso directing this report was included in the adopted 2025 King County budget. It mandates the development of a resilience hubs report that documents King County's progress on resilience hubs, summarizes findings from collaboration with K4C and other partners, and proposes a timeline for next steps including potential sites, evaluations, and resource needs. This report aims to contextualize the role of cooling centers and the emerging interest in resilience hubs across King County. It provides a framework for understanding their role in addressing extreme heat and other climate hazards, highlights progress to date and identifies next steps for implementation.

This report builds on King County's commitment to center frontline communities in climate preparedness, as outlined in the 2020 and 2025 SCAPs and the Climate Equity Community Task Force recommendations.[10] The report supports SCAP goals and department mandates and serves as a foundation for future investment, planning, and cross-jurisdictional collaboration.

Report Methodology

[8] Blueprint for Addressing Climate Change and Health - Public Health Seattle & King County
[9] Public Health – Seattle & King County 2024-2029 Strategic Plan - King County, Washington
[10] Climate Equity Community Task Force

This report was developed by ECO in collaboration with OEM and other King County jurisdictions and community partners. The report draws on internal planning documents, regional case studies, and engagement with jurisdictions participating in K4C. This includes:

- Coordination with K4C to understand local needs, priorities, and barriers;
- Data collection on resilience hub activities across jurisdictions, including Issaquah, Seattle, and unincorporated King County;
- Engagement with community-based organizations (CBOs) and partners that are currently developing, or have interest in developing, resilience hubs;
- Crosswalks with existing public input gathered through planning efforts in Seattle, Issaquah, and by OEM, and
- Review of relevant county documents, including the Extreme Weather Operations Plan, the Extreme Heat Mitigation Strategy, Comprehensive Emergency Management Plan (CEMP), and the SCAP.

These efforts provide a grounded understanding of current activities, challenges, and opportunities for advancing resilience across the region. They also inform the findings and recommendations presented in the sections that follow.

IV. Report Requirements

A. **King County's progress on developing resilience hubs**, including a plan for community engagement;

This section addresses the proviso requirement to provide information on the progress King County is making on developing resilience hubs.

A.1 - What Are Resilience Hubs and How is King County Approaching Them?

The concept of resilience hubs was first developed by the Urban Sustainability Directors Network (USDN) and has since gained national and international attention.[11] Resilience hubs are physical spaces that serve communities during times of disruption and throughout the year. They are rooted in five foundational areas: services and programming, communications, buildings and landscapes, power systems, and operations. This brick-and-mortar model establishes year-round, community-run spaces that support everyday needs and emergency response. Hubs provide essential services such as food, water, medical supplies, clean air, and cooling or heating alongside training, education, and neighborhood preparedness programming. Many are equipped with resilient power systems like solar and battery backup to ensure continued operation during outages. Grounded in a holistic, community-centered approach, the USDN model seeks to strengthen local leadership, social cohesion, and climate resilience. However, the model also requires significant investment in infrastructure, staffing, and maintenance, and may face challenges with scalability, funding, and equitable access (USDN, 2019). While the USDN model helped define and shape early conversations around resilience hubs, no single model fits all contexts. In practice, hubs vary depending on geography, governance structures, funding availability, physical infrastructure, and the specific needs of the communities they serve.

[11] USDN Resilience Hubs Guidance, 2019

Research and findings from this report show that the most impactful hubs are those that are co-developed with communities, especially those communities that have been historically excluded from decision-making.[12] A participatory approach leads to solutions that are more likely to be used, trusted, and tailored to the specific needs and values of residents.[13] Successful resilience hubs and hub networks offer opportunities to build or rebuild trust, support community self-determination, and address both climate vulnerability and the social determinants of health.[14] As such, funding and governance models should align with these values, combining support from government, philanthropy, and community capital whenever possible. Funding and sustaining the physical and operational components of hubs remains a challenge, however.

While not directly funding or operating resilience hubs, King County is actively investing in comparable efforts that support place-based resilience to climate hazards. Through the SCAP and other initiatives, the County has supported emergency and climate preparedness, partnered with community-based organizations, and invested in facility upgrades, backup power, clean energy, cooling strategies, and equitable and just practices for preparing communities for a changing climate. Work on cooling centers and many of the core components are already in progress across departments and partner jurisdictions, as discussed in sections to follow.[15]

A.2 - Core Components and Considerations for Resilience Hubs

Resilience hubs are community-serving facilities designed to support residents before, during, and after climate and other emergencies, including earthquakes. Their core components often include reliable heating and cooling systems, clean air and water access, backup power, food storage and distribution capacity, and the ability to function as communication and gathering centers. But beyond infrastructure, resilience hubs also require trusted relationships, operational support, staffing, and partnerships with local organizations and agencies. These spaces are most effective when they are grounded in community leadership, meet locally defined needs, and are supported by sustained investment and coordination. This section outlines key components and considerations for resilience hub development, including infrastructure needs, operational requirements, equity-centered engagement, and funding challenges.

Resilience hubs may share overlapping functions with cooling centers, which are a more common approach to supporting communities during extreme weather events. Overlapping approaches to climate resilience can include temperature regulation, emergency supplies, and staffing. Differences in scale, design, and intent can be significant, however. Cooling centers are often activated temporarily in response to extreme heat, while resilience hubs operate year-round and offer broader services that build long-term community resilience. Figure 1 outlines key differences between the two.

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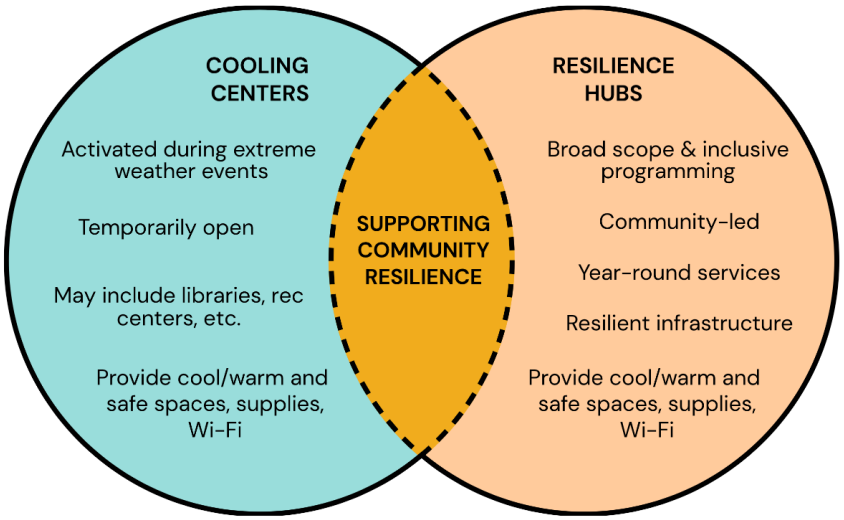
[12] Baja, K, 2021, Resilience Hubs - Shifting Power to Communities through Action, 2021

[13] Wilken et al., 2024, Building Local Climate Health Equity Into a Resilience Hub Framework

[14] The CDC defines social determinants of health as the conditions in which people live, learn, work, and play that influence health risks and outcomes. See: CDC, "Social Determinants of Health," https://www.cdc.gov/socialdeterminants.

[15] King County's OEM currently activates temporary cooling centers during extreme weather events at select County and community sites. OEM has led planning to expand, staff, and upgrade trusted spaces for more effective and accessible future operations.

Figure 1. Resilience Hubs and Cooling Centers – a comparison



Cost is a critical component and consideration for cooling centers and resilience hubs. As OEM highlights in the Regional Sheltering Plan, costs for resilience hubs can vary significantly given the diversity of services and facility requirements. A significant upfront cost is the installation of heat pump or warming/cooling systems and any necessary HVAC upgrades (Appendix A). These costs vary based on a facility's age, condition, size, and design. Research shows that these types of infrastructure investments can range from $160,000 to $13 million (Appendix A). The Regional Sheltering Plan includes examples of past HVAC upgrades in King County that demonstrate the variability in cost:

- District Court HVAC (partial replacement): $166,640
- Clise Mansion HVAC (28-room facility): $260,000
- Federal Way Red Lion Hotel (28,000 sq. ft.): $384,000
- Shoreline District Court HVAC and fire alarm replacement: $1.34 million
- SODO warehouse conversion for emergency shelter (250+ beds): $13 million

These cases underscore the importance of individualized facility assessments, as costs are driven by both infrastructure and the scale of improvements needed.

In addition to capital upgrades, operational and staffing costs must be considered. OEM found that staffing costs can range from $1,400 to $1,700 per 12-hour shift. Costs were based on standard wage data: shelter staff ($31.80–$42.76/hour), custodial ($24.68–$35.25/hour), and security ($44.23/hour) (Appendix A). These costs differ significantly depending on whether the hub operates during the day only or offers overnight services. Similarly, supporting resilience hubs requires more than a one-time investment.

To better organize and understand the complexities and necessary considerations for resilience hubs, Table 1 presents a framework that highlights the key components of resilience hub development. The table identifies opportunities for coordination, key implementation partners, and challenges that must be addressed to ensure that hubs are not only technically and financially feasible, but also equitable, community-rooted, and sustainable. Note that estimated costs in Table 1 are represented with dollar signs ($), where $ implies a lower cost and $$$$ the highest costs.

Table 1 - Components of Resilience Hubs

Category	Component	Considerations	Relative cost ($-$$$$)	Ongoing or one-time investment
Facility Infrastructure	Cooling/warming systems and spaces (e.g., heat pump, passive design, etc.)	Conduct assessments and feasibility studies; plan, install, and maintain energy-efficient systems; identify funding sources; engage with CBO and government partners; consider multiple uses.	$$-$$$$	One-time for capital investment; ongoing for maintenance
	Backup power systems (e.g., onsite solar, battery storage, hybrid resilience systems) for multi-day operations	Assess site capacity; secure funding; coordinate with utilities and emergency services; plan for upkeep and testing.	$$-$$$$	One-time for capital investment; ongoing for maintenance
	Structural improvements for seismic safety	Site assessments, upgrades, and facility improvements.	$$-$$$$	One-time for capital investment; ongoing for maintenance
	Accessible, welcoming, and ADA-compliant facilities and restrooms.	Conduct initial site assessments; update and include ADA infrastructure; support cultural considerations.	$$-$$$$	One-time for capital investments; ongoing for maintenance, engagement, and creating accessible and welcoming spaces
	Wi-Fi, device charging stations	Plan for broadband access; budget for equipment and maintenance; coordinate with IT departments.	$-$$	One-time for installation; ongoing for broadband systems
	Pet-friendly accommodations	Identify suitable spaces; coordinate with animal services; address health and safety requirements.	$$-$$$$	One-time for capital investments; ongoing for maintenance, staffing, and resources
Access and Location	Located near high-risk or frontline communities[16]	Use hazard and demographic data to prioritize sites; engage with communities early to build trust.	$-$$	Ongoing *(as new resilience hubs are planned and implemented)*

[16] Resilience hubs should be located within population islands identified in the Regional Catastrophic Preparedness Grant Program (RCPGP) and 2020 project.

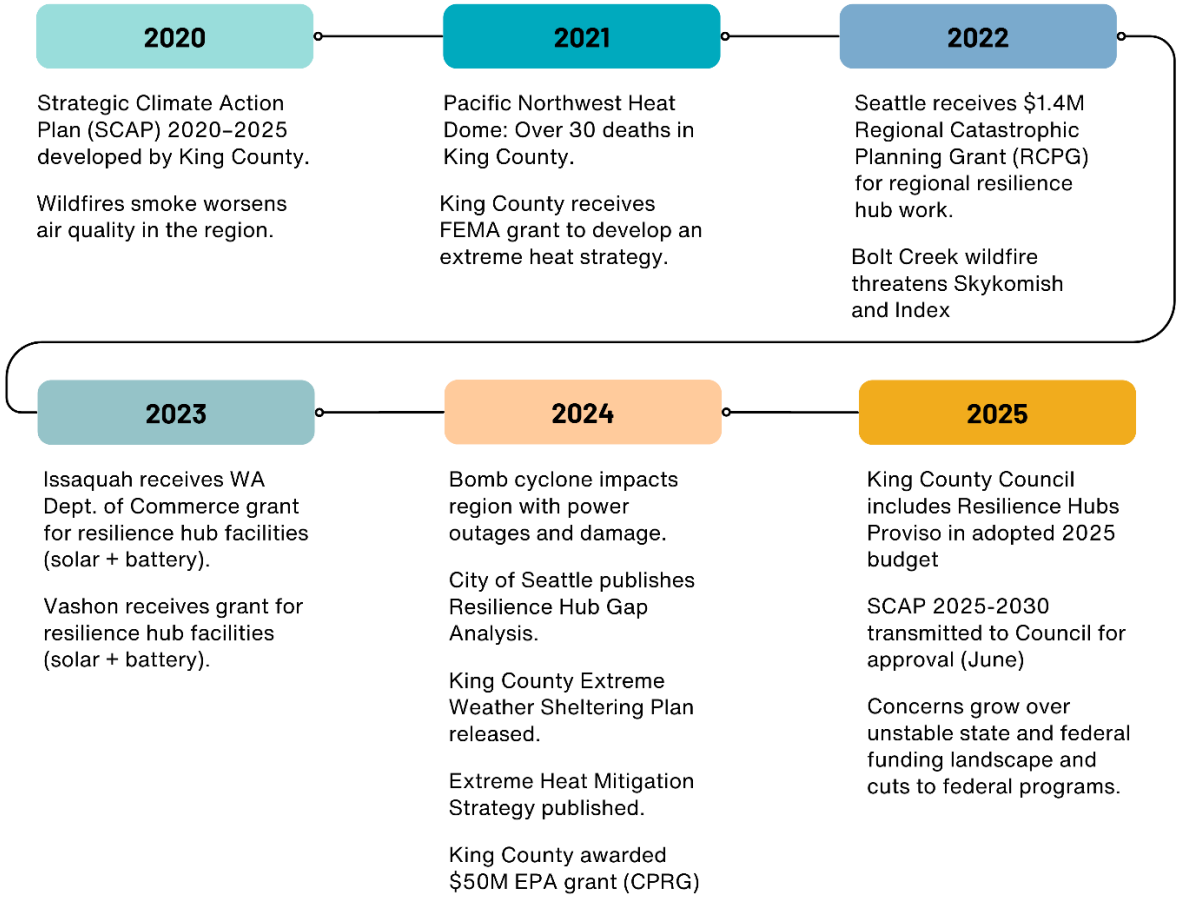
	Accessible by public transit or local shuttles	Coordinate with transit agencies; budget for signage and service expansion; ensure accessibility; engage with communities to meet local needs.	$-$$	Ongoing
	Clear signage, with no ID or documentation requirements	Remove barriers that would deter use; ensure signage is multilingual and welcoming; partner with community groups for trust-building.	$	One-time
	Integration into a broader network of community-trusted spaces	Develop partnerships with local groups; align with existing service networks; avoid duplicating efforts.	$	Ongoing
Community-Centered	Co-designed with local organizations and residents	Allocate staff time and resources; support community participation; clarify roles and responsibilities.	$	Ongoing
	Provide wraparound services (e.g., transportation, food access, mental health)	Coordinate with social service agencies; budget for ongoing support; build referral systems.	$-$$	Ongoing
	Include regularly programing and services during “blue sky” days	Partner with community groups; fund consistent programming; ensure cultural relevance.	$-$$	Ongoing
	Embed equity into site selection, services, and decision-making processes	Work with communities to apply equity frameworks; prioritize underserved and vulnerable populations; monitor impacts, evaluate offered services, and adapt as needed.	$	Ongoing
Operations	Defined governance protocols and multilingual communications	Establish clear roles and decision-making process; fund translation and outreach; coordinate with emergency management.	$-$$	One-time & ongoing (for updates and review)
	Flexible use spaces (e.g., family zones, cultural or faith-based accommodations)	Design for adaptability; consult with diverse groups; clarify usage guidelines.	$	One-time
	Extended or 24-hour operations during emergencies	Plan staffing and security; develop agreements with partners; address staff well-being and overtime.	$$	Ongoing

	Routine cleaning, clear health standards, and safety protocols	Align with public health guidelines; fund cleaning staff; train staff on protocols.	$-$$	Ongoing
Staffing and Training	Trained personnel in health, behavioral support, and cultural competency	Partner with health agencies and community-based service providers; plan ongoing training; budget for staff turnover and support.	$-$$	Ongoing
	Staffing models that include community representatives and trusted messengers	Recruit locally; build trust; ensure staff reflect community diversity; define roles.	$	Ongoing
	On-site medical and behavioral health supplies	Coordinate with health providers; budget for supplies; plan for restocking and storage.	$-$$	Ongoing
Public Health	PPE and hygiene supply stations; COVID-era and future-ready public health screening protocols	Fund and procure; ensure secure supply of resources; equitable distribution; develop flexible plans; train staff in implementation.	$-$$	Ongoing
	Enhanced ventilation and air filtration standards	Assess HVAC needs; budget for upgrades; follow building codes and public health standards.	$-$$$	Ongoing, with potential for additional one-time capital costs
	Potable water and shelf-stable food and storage	Fund and distribute emergency water and food for public use.	$	Ongoing

A.3 - Efforts on Resilience Hubs in King County

A limited number of King County cities, community-based organizations, and regional partners are advancing a range of efforts to support, plan for, and develop resilience hubs. Local interest in resilience hubs is in part driven by increasing extreme weather events and funding opportunities, as outlined in Figure 2.

Figure 2 – Timeline of Major Events and the Growth of Resilience Hubs in King County



This section highlights emerging models and milestones from across the region, highlighting case studies that vary from rural churches with solar backup systems to networked urban facilities supported by city-led planning. These examples demonstrate different approaches, levels of readiness, and shared goals of supporting community climate resilience now and into the future. Together, the case studies reflect momentum toward resilience hubs as a strategy for climate preparedness and community resilience in King County.

Community Effort Highlights

Vashon United Methodist Church: The Vashon United Methodist Church has emerged as a leading example, combining infrastructure upgrades with essential community services. Supported by a $130,000 Solar plus Storage for Resilient Communities grant from the Washington State Department of

Commerce, federal elective tax credit payouts, and bridge funding from Faith Foundation Northwest, the church installed 30kW of solar panels with 81 kWh back up battery storage. Recently heat pumps have been installed, which allow for both cooling and heating and improves the health and safety of the space, a critical component of a resilient hub. These upgrades allow the facility to operate off-grid for up to three days during power outages.

Today, the church houses the Vashon-Maury Community Food Bank, a daycare, and a family support center, and is actively coordinating with VashonBePrepared, Youth and Family Services, and the Interfaith Council on Homelessness. The project was made possible by internal capacity to navigate funding processes, strong social networks, and early contractor relationships. It highlights the importance of pairing capital improvements with operational readiness and collaborative service delivery.

Mini Mart City Park (Seattle): In the Georgetown neighborhood of Seattle, Mini Mart City Park (MMCP) has transformed a former gas station and contaminated brownfield into an artist-designed, community-led hub for environmental action, cultural programming, and local resilience. The project, initiated by the artist collective SuttonBeresCuller, began with a vision to rehabilitate a damaged site while creating shared space for the community. Rather than removing polluted soil and exporting the problem, MMCP implemented on-site remediation, embracing regenerative approaches to climate action.

Officially opened to the public in 2022, the space now hosts art exhibits, education programs, public events, and partnerships with local organizations, serving as a gathering place that strengthens community ties, builds creative capacity, and supports public health. MMCP offers programming and services that support local community resilience including heat illness prevention and CPR training, while the facility offers cooling through its green roof and shading and provides the ability to charge devices during power outages. Furthermore, the space has installed solar and battery back-up which further supports the organization's efforts to become an established resilience hub.

Issaquah Food and Clothing Bank: The Issaquah Food & Clothing Bank (IFCB) is deeply rooted in community and is taking steps to ensure community resilience and climate preparedness. IFCB has been involved in the City if Issaquah's resilience hub initiative and continues to serve as a critical connector for vulnerable populations. They distribute food and hygiene products as well as information and essential services. IFCB is also considered as a trusted community anchor; residents rely on IFCB's bulletin board for up-to-date program information and see the space as a primary source for resources and support.

IFCB is currently preparing for an expansion. Having recently purchased its building from the City, IFCB is exploring plans to acquire the adjacent property, with the intention of demolishing both structures and constructing a new facility. This expanded site would include dedicated meeting rooms, community gathering spaces, and design features to accommodate solar and battery storage, thanks in part to guidance and technical support provided by the City of Issaquah. IFCB is an example of a community-owned and managed facility that is taking a wide-reaching approach to their resilience hub and looking beyond current threats to community resilience and planning for the future.

Progress in King County Cities

Issaquah: The City of Issaquah launched its resilience hub initiative in late 2023, initially supported by the Washington State Department of Commerce Solar plus Storage for Resilient Communities program (funded from the Climate Commitment Act). The City works closely with community partners through quarterly convenings, developing mutual support networks and co-created emergency activation plans. Facilities, including the Senior Center, Community Center, Food and Clothing Bank, and Blakely Hall, now serve as active resilience hubs. Building on the work of the planning grant, the City received the Department of Commerce's Clean Energy Community Grant ($1,712,984) to support solar plus battery backup for the Issaquah Senior Center in 2025 (funding from the Climate Commitment Act). Resilience Hubs in Issaquah are a mix of City-owned and community-owned sites. City-owned sites are managed by the Issaquah's Parks and Community Services team while non-City sites each have their own organization or entity running their sites (e.g., Issaquah Food and Clothing Bank, described previously). Each resilience hub is dedicated to supporting community members before, during, and after emergencies; however, the specific operation of these sites varies based on their capabilities and population served.

The City of Issaquah is pioneering a collaborative, network-based approach to resilience hub development that includes many partners and facilities. These efforts include a quarterly convening of hub stakeholders, ranging from official hub facility operators and City departments to community-based organizations and regional partners. These meetings provide a consistent, structured opportunity for partners to build relationships, share resources, and align strategies in support of a more resilient Issaquah. Each meeting focuses on a different topic, from emergency operations manuals and inclusive space design to resilient communications and winter hazard planning. The City has emphasized that the goal is not just to prepare for "gray sky" days, but to support trusted, inclusive spaces that enhance well-being and access to resources throughout the year. While the meetings are currently coordinated and facilitated by City staff from Sustainability and Emergency Management, Issaquah's staff aim to balance leadership and support. They aim to provide structure and resources while encouraging hub partners to shape the agenda and contribute their expertise.

The quarterly meetings have yielded tangible benefits. For example, during a recent clean air device giveaway, the City relied on its resilience hub partners to promote the event and distribute equipment such as fans and air filters. Within 24 hours, community demand surpassed expectations. This model underscores the City's approach to resilience hub as not just a building, but a network of relationships and capacities that collectively strengthen community resilience.

Issaquah published a resilience hub dashboard, which highlights the City's resilience hubs and shows how each space acts in emergency operation mode, everyday mode, and recovery mode. Additionally, the City created an emergency operations manual to guide City--operated resilience hubs while serving as an example for partner organization. Along with the dashboard, resources developed, and quarterly convenings, the case of Issaquah offers a transparent and replicable framework. In November 2024, the City's hub network was activated during the Bomb Cyclone providing critical services such as power, warmth, snacks, and support to more than 1,700 residents. Post-event debriefs identified needs for stronger public communications, better staffing protocols, and expanded community awareness. The City is using this feedback to improve coordination, identify resources for City and partner sites, and develop standardized templates to support future hub partners. Issaquah has also embedded this work into existing emergency management staffing and is developing for ongoing community input.

Seattle: The City of Seattle is working alongside Puget Sound Regional Catastrophic Planning Team partners, including King County and the City of Tacoma, to support and plan for resilience hubs in the Puget Sound Region. This work is supported in large part by a $1.4 million Regional Catastrophic Planning Grant (RCPG) awarded by FEMA in 2022 and running through 2025. This project supports an eight-county, multi-jurisdictional effort to build capacity among CBOs to plan and implement resilience hubs. To support this work, Seattle and regional partners are focused on understanding community-defined resilience, exploring the roles that hubs can play, and identifying ways to support CBO-led efforts.

In addition to the regional resilience hub work supported by the RCPG, Seattle's Office of Emergency Management and Office of Sustainability and Environment recently led a regional gap analysis and extensive community engagement effort to better understand what community resilience means in Seattle and how hubs can support the City.[17] Findings from the engagement included a strong call for community governance, support for decentralized hub networks, and interest in place-based, culturally rooted solutions.

Seattle's coordination efforts also include disaster training, climate education programming, and the development of the Puget Sound Resilience Hubs Dashboard, which brings together resources and approaches for starting a resilience hub and provides information on climate events and impacts.[18] In parallel, the City received $5.5 million from FEMA to install air conditioning at five libraries in Seattle.[19] Seattle is investing in top priority neighborhoods based on the Race and Social Equity Index and existing City investments. These neighborhoods are Beacon Hill, Georgetown, Lake City, and South Park. The City is decarbonizing many of its municipal buildings according to the Municipal Building Decarbonization Plan. Seattle's evolving model emphasizes lowering the barrier to entry for hub participation and envisions a flexible, networked approach to resilience.

Other Cities in King County: Across King County, cities are advancing resilience hub efforts in varied and locally grounded ways. Some jurisdictions are formally planning for resilience hubs, while others are relying on informal or ad hoc spaces to provide safe, healthy environments during climate-related emergencies.

- **Bellevue** has upgraded several community centers to serve as smoke- and cold-weather-safe spaces and is investing federal funds into HVAC system upgrades and emergency infrastructure. Future implementation will depend on sustained funding support, highlighting the need for consistent investment and long-term resource planning.
- **Sammamish** has used City Hall as a limited-capacity hub, providing backup power and basic services like device charging and warmth. Looking ahead, the City intends to strengthen its resilience infrastructure by identifying new hub locations and developing planning guidance as part of its 2027 Climate Action Plan update. Key challenges include the limited number of public gathering spaces and the need for increased intercity coordination and funding.
- **Bothell** is in the early stages of resilience hub development. While no official hubs have been established yet, the City's newly adopted Climate Element points to resilience hubs as a future

[17] Regional Catastrophic Planning Team
[18] Puget Sound Resilience Hubs Dashboard
[19] City of Seattle Awarded FEMA Grant to Install Air-Conditioning at Five Library Branches - Office of the Mayor (2024)

priority, and plans are underway to include them in the next update to its hazard mitigation plan. This early-stage work underscores a need for cross-departmental collaboration and clearer guidance on implementation.

- **Maple Valley** has limited publicly owned infrastructure and a strong reliance on non-governmental and community spaces. However, the City is exploring regional coordination with Covington and Black Diamond to identify shared resilience hub opportunities and align emergency response efforts. This highlights the need for hub models that support contract cities, enable resource-sharing, and build on existing regional partnerships.

King County Government Progress - Supporting Resilience Hub Components

King County government has identified the concept of resilience hubs as one of several potential approaches to address intensifying climate risks. While King County does not own or operate resilience hubs, the county, alongside critical partners, is supporting components of resilience hubs in a myriad of ways, as is discussed below.

Climate Pollution Reduction Grant (CPRG): King County is supporting critical infrastructure for community-led resilience hubs by leveraging the Climate Pollution Reduction Grant (CPRG) to electrify and weatherize community buildings and affordable housing, directly enabling critical functions such as cooling, air filtration, and broader energy security. In addition to physical infrastructure improvements, the CPRG program will also raise awareness on cooling and air filtration options, strengthening the public health foundation of community-serving spaces during extreme weather events.

Energize Program: The Energize program retrofits homes and small businesses with energy-efficient heat pumps, electric appliances, and other energy efficiency upgrades, with a specific emphasis on climate equity. It targets communities that have been historically burdened by environmental pollution in south King County, ensuring that resilience-enhancing infrastructure reaches those most at risk. Heat pumps installed by this program provide both climate mitigation and resilience benefits, improving indoor air quality and reducing heat-related health risks.

Electric Vehicle (EV) Charging Infrastructure: As part of its efforts to build mobility resilience and expand energy access, ECO is growing the region's public EV charging infrastructure to include 55 new stations. These are being placed at community hubs such as centers and multifamily housing, improving equitable access to transportation and resilience services. A key example is the Vashon United Methodist Church, which now includes EV charging as part of its broader role as a resilience site. These stations offer the additional benefit of enabling device charging during outages or extreme events.

Community Climate Resilience Grant (CCRG): King County's CCRG program exemplifies its commitment to community-driven resilience. By funding grassroots and culturally rooted organizations such as Real Change and Mother Africa, the grant supports locally led efforts to build climate resilience and social cohesion. These initiatives are critical to resilience hub development, not only because they deliver tangible services, but because they foster trust, co-design, and deeper community involvement in long-term resilience planning.

Laying the Groundwork for Community Resilience: King County plays a key role in planning for cooling centers and the development and integration of components commonly found in resilience hubs across

the region. Recent plans and strategies, including the Regional Sheltering Plan, the 2025 Strategic Climate Action Plan, and the 2024 Extreme Heat Mitigation Strategy, provide pathways for aligning infrastructure, funding, and partnerships in ways that support resilient, safe, and trusted spaces before, during, and after climate-related events. For example:

- **2024 Regional Operational Plan for Extreme Weather Sheltering**: This plan provides a coordinated framework for King County and partners to activate temporary sheltering during extreme weather events, including heat, cold, and smoke. The Plan establishes essential criteria (backup power, ADA accessibility, and trusted site partners, etc.) that closely align with resilience hub components (Table 1). It also emphasizes coordination with community-based organizations, which is key to developing equitable, community-centered resilience hubs across King County.
- **2025 Strategic Climate Action Plan:** The 2025 SCAP supports the development of resilience hubs by prioritizing investments in community-serving facilities, backup power, and cooling infrastructure, particularly in partnership with frontline communities. SCAP emphasizes equity-centered climate preparedness and outlines actions that align with key components of resilience hubs, such as trusted spaces, community partnerships, and multi-purpose infrastructure that supports residents year-round and during climate-related events. Action 49 of the plan commits to seeking funding to increase rural community resilience, including but not limited to Skykomish and Vashon Island.
- **2024 Extreme Heat Mitigation Strategy:** The Extreme Heat Mitigation Strategy (a 2020 SCAP action) includes actions that support the development of resilience hubs and community cooling networks by investing in trusted, year-round spaces that help residents stay safe during extreme heat. The strategy also emphasizes partnerships, equity-centered design, and support for community-led solutions, aligning closely with the foundational goals and components of resilience hubs in King County. Specifically, the Strategy identifies resilience hubs in Action 5 as a method to mitigate extreme heat and support disproportionately impacted communities with community-led cooling spaces.

A.4 - What We've Learned from Progress in King County on Resilience Hubs

As jurisdictions across King County explore varied approaches to resilience hubs, key patterns and lessons are emerging that help inform the County's evolving strategy and priorities for ensuring community resilience in the face of extreme weather and increasing climate threats.

Shift toward more networked, flexible models: There's a clear shift from relying solely on fully equipped, highly serviced facilities as resilience hubs, which can be costly and, at times, unsustainable. Instead, there is a growing focus on lowering the barriers to entry and working with multiple community partners to support localized resilience efforts. This approach is leading to the development of a more networked model. In many cases, it resembles a hybrid between a hub-and-spoke system and a decentralized network, where trusted community organizations, facilities, or groups act as conduits for sharing resources, information, and support, while also providing a location that increases physical safety and relief during climate emergencies.

Community-centered approached are essential for success: Cities like Seattle and Issaquah, and communities like Vashon are taking concrete steps to move from planning to action by supporting both existing hubs and creating new, distributed networks. What has been most effective so far is a community-led approach, one that requires time, resources, and authentic conversations led by

residents and shaped by their lived experiences. Jurisdictions across King County have found that to succeed, these spaces and networks must reflect the priorities of the people they are intended to serve. This underscores the importance of jurisdictions finding meaningful ways to engage and support CBOs as they advance these efforts.

Effective CBO support requires flexible, sustained funding and capacity-building: Further exploration is needed to understand what effective support for CBOs to advance hubs looks like in practice. For example, seed and gap funding could help CBOs make initial investments and carry out early-stage planning. In parallel, jurisdictions and CBOs will need flexible, sustained funding and technical assistance to bring these networks to life.

Further cross jurisdictional coordination and funding alignment needed: There is also a growing need for regional, cross-jurisdictional coordination. Aligning resilience hub development with emergency management and hazard mitigation efforts can ensure that local and regional plans reinforce each other. In addition to coordination, creating resilience hubs requires upfront capital to fund construction, infrastructure upgrades, ongoing funding maintenance, and operations. However, funding remains a challenge. One key barrier is the uncertainty and limitations of current federal grant programs. In addition, long-term sustainability depends on continued political support and reliable program funding at both the state and local levels. As the state's funding landscape shifts, more clarity may emerge around long-term investment opportunities. At the same time, changes in local leadership or priorities could pose risks to the progress made on resilience hubs.

King County's role must be grounded in community needs and internal capacity: The role of King County in planning, developing, funding and implementing resilience hubs and community-based networks will depend on clearly identifying community needs, regional opportunities, and organizational resourcing and capacity. These themes, raised throughout engagement with the K4C Climate Preparedness Working Group, will be explored further in the sections that follow.

A.5 - Plan for Community Engagement

This report, and the engagement, outreach, and research that informed it, lays the foundation for future community engagement around resilience hubs in King County and the surrounding region. Any countywide engagement plan to further explore resilience hubs should involve frontline communities in shaping the location, design, and function. Engagement could build on the County's existing collaborations, working groups, and networks that bring together interdisciplinary expertise from across departments, institutions, and organizations.

Supporting resilience hubs in King County will require more than infrastructure investments. It will require a thoughtful, community-centered approach. A more robust community engagement process around resilience hubs in the county would first involve co-designing an approach and engagement plan with communities and residents that reflects their specific needs, histories, and aspirations. This engagement plan would not be one-size-fits-all. Rather, it would be tailored to recognize the unique risks, resources, and definitions of resilience held by different neighborhoods and CBOs across the region. Initial engagement would begin by identifying communities interested in developing a resilience hub with an emphasis on partnering with trusted CBOs, local leaders, and residents. If funded and staffed appropriately, this process could unfold in two phases:

- **Phase One** would focus on outreach and relationship-building, mapping potential resilience hub locations, and assessing community readiness. This process would be led by ECO and would engage with the Climate Equity Community Task Force, emphasizing collaboration through one-on-one meetings, interviews, and introductory gatherings.
- **Phase Two** would deepen this work through a series of approximately eight to 10 co-designed workshops County-wide (with approximately 20 participants each), supplemented by focus groups and participatory activities. This phase would center community visions for resilience, identify necessary supports for implementation, and begin to outline governance, services, and infrastructure needs. Compensation for participants, translation services, and culturally responsive facilitation would be essential to ensuring inclusive and equitable participation.

To carry out this work effectively, additional funding and staffing would be required. A dedicated staff member within ECO would be needed to lead and coordinate the engagement process (estimated at $125,000 annually), along with a projected budget of $75,000 to cover facilitation, stipends, materials, facilities, and translation. Participants, CBO partners and leads, as well as facilitators would be compensated. This investment would help ensure that the process is not only community-informed but also community-driven. Through an approach like this, the process would start by laying a groundwork for resilience hubs that are rooted in local knowledge and trusted partnerships and designed to meet the long-term needs of King County communities.

B. The results of collaboration through the King County - Cities Climate Collaboration, also known as K4C, and other partnerships to identify potential hub partnerships and locations in incorporated areas;

B. 1 - Exploring Regional Needs: Insights from the K4C Working Group

To respond to the Council's request and inform this report, ECO engaged K4C jurisdictions in multiple ways to better understand local perspectives on resilience hubs. These efforts included a working group session in April 2025, a resilience hub discussion and worksheet exercise during the K4C General Meeting in May 2025, and a follow-up survey distributed to all 24 K4C jurisdictions in July 2025. These activities were designed to surface regional needs, opportunities, and challenges and to understand where jurisdictions are in their resilience hub journeys.

Across the board, jurisdictions expressed a shared understanding of the important role resilience hubs could play in addressing climate hazards, community vulnerability, and emergency preparedness. Many are motivated by local extreme weather concerns, including extreme heat, wildfire smoke, and power outages, as well as a desire to strengthen community connection and social infrastructure. Others are motivated by gaps in disaster preparedness or interest from residents.

At the same time, jurisdictions noted several barriers, including lack of funding, staff capacity, and information. Some cities are just beginning to explore the concept, while others, like Issaquah, Bellevue, and Seattle, have already integrated resilience hubs into capital planning or developed partnerships with community organizations. Importantly, participants emphasized the value of flexible, place-based models. While some cities are developing formal hubs, others are looking at hybrid models through partnerships with nonprofits, faith institutions, or businesses.

Several cross-cutting themes emerged. Many participants emphasized the need for hubs to be trusted, accessible spaces, geographically distributed, climate-resilient, and embedded in the communities they serve. There was also agreement on the need to support resilience not only at centralized sites but also at the household and neighborhood scale. Jurisdictions called for more regional coordination, peer learning, and resources such as case studies, toolkits, and funding strategies. Many also highlighted the need for deeper collaboration with CBOs and emergency management partners to support successful hub planning and implementation.

Together, these insights help shape a clearer picture of what's needed to advance resilience hubs across King County: a combination of shared definitions and flexible models, strong partnerships, local leadership, and targeted support for funding, capacity, and coordination.

B.2 - Emerging Opportunities for Hubs and Partnerships

In parallel to this engagement process, ECO conducted interviews with staff from K4C partners, community organizations, King County departments and partner jurisdictions, including those working in emergency management, sustainability, capital planning, and natural resource management, as well as with community-based organizations across the region. Over the course of developing this report and past research and outreach efforts, ECO and key County and regional partners developed a list of potential resilience hub sites and partners. The sites identified below are both current hubs and/or potential opportunities. However, further evaluation and community engagement will be essential to determine readiness, feasibility, and long-term sustainability.

Community-Based Partners and Locations

The following organizations were identified through community engagement efforts led by various jurisdictions and communities in the region, including the City of Seattle and Tacoma (as part of the Regional Catastrophic Planning Grant), Vashon Island, Kent, and Burien. For more information on these efforts see Section B. The organizations listed below, all based in King County, have expressed interest in becoming resilience hubs or are already established hub partners. Note: established hubs are noted with an * below.

- Byrd Barr Place (Seattle)
- yəhaw Indigenous Creatives Collective (Seattle)
- It Takes A Village (Kent)
- Burien Collaborative (Burien)
- Mini Mart City Park (Seattle)*
- Lake City Collective (Seattle)
- Duwamish River Community Coalition (Seattle)
- Vashon United Methodist Church (Vashon)* and network of 180+ churches in Washington
- Issaquah Food and Clothing Bank (Issaquah)*
- Issaquah Highlands Association (Issaquah)*
- The Circle Community Connections (Issaquah)*

Jurisdictional Partners and Local Governments

The jurisdictions highlighted below are interested in or actively working on resilience hubs. This list was developed through engagement with K4C members, as described in Section B.1.

- **Issaquah:** Has six resilience hub sites established, including the Issaquah Christian Church, Issaquah Food and Clothing Bank, Pickering Barn, and Blakely Hall. Additional and up-to-date sites can be seen at the City's Resilience Hub Dashboard.[20] Additional CBOs and stakeholders participate in the City's quarterly resilience hub meetings, as described in Section B.
- **Sammamish:** Has used City Hall, Town Center, libraries, and the YMCA as cooling centers and is interested in expanding these spaces to align with the resilience hub model.
- **Bothell:** Interested in integrating their emergency preparedness work with resilience hubs.
- **Bellevue:** Interested in exploring how community centers could serve as resilience hubs.
- **Kenmore**: City Hall is used a cooling center during extreme weather events. Electrical charging stations are available for the public to use. And local businesses participate in activating the space. The City is considering expanding its resilience hub network.
- **Maple Valley, Black Diamond, Covington:** Interested in exploring a tri-city collaboration.
- **Tukwila:** City Hall, cooling centers, and facilities are owned and managed by the Parks Department.

Potential Future Cooling Centers Identified in OEM's Regional Sheltering Plan

The following facilities were identified in OEM's Regional Sheltering Plan as potential cooling/warming sites. Potential non-King County facilities were identified in collaboration with city emergency managers and select community institutions, such as Bellevue and Highline College, through meetings, surveys, emails, and direct outreach by OEM.

- Highline College
- Bellevue College
- North Kirkland Community Center
- Peter Kirk Community Center
- Black Diamond Gymnasium
- Redmond Senior & Community Center
- Redmond City Hall
- Redmond Community Center at Marymoor Village
- Issaquah Community Center
- Baring Fire Station 196
- Des Moines Normandy Park Senior Activity Center
- Montlake Community Center
- Miller Community Center
- Garfield Community Center
- Langston Hughes Performing Arts Center
- Yesler Community Center
- International District Community Center
- Jefferson Community Center
- Amy Yee Tennis Center
- Rainier Community Center
- Southwest Community Center
- Rainier Beach Community Center
- Pritchard Beach
- The Brig at Warren G. Magnuson Park
- Magnuson Park Hanger #30
- Magnuson Community Center
- Laurelhurst Community Center
- Meadowbrook Community Center
- Meadowbrook Annex
- Ravenna-Eckstein Community Center
- Northgate Community Center
- Ballard Community Center
- Loyal Heights Community Center
- Bitter Lake Community Center
- Alki Community Center
- Hiawatha Community Center
- Delridge Community Center
- High Point Community Center
- Southwest Community Center
- Magnolia Community Center
- Queen Anne Community Center

[20] City of Issaquah, Resilience Hub Dashboard

- Seattle Center Exhibition Hall
- Seattle Center McCaw Hall
- Seattle Center Armory
- Seattle Center Fisher Pavilion

It is important to note that this list represents a snapshot in time. The condition, availability, and community alignment of these facilities will likely evolve. For that reason, developing a system to regularly collect and update information about site readiness, infrastructure, and programming potential is important. This could include annual jurisdictional surveys, participation in compensated planning workshops, or formalized coordination with CBOs and city staff.

Finally, while this report reflects an initial scan of progress, gaps, and opportunities, further community engagement and participatory planning will be essential to ensure that resilience hubs are community-driven, operationally viable, and equity-centered. These next steps are outlined in the sections that follow.

C. A proposed timeline for next steps which may include identifying additional sites, evaluation of sites, and anticipated resource needs informed by local, regional, and national best practices.

This section outlines known and anticipated next steps that King County and partners can take to advance resilience hub planning and support implementation. A key focus is on implementation of existing commitments that directly or indirectly support the establishment of resilience hubs and/or increased community access to locations that support communities during extreme weather. Additional potential activities are also identified. All activities, current and potential, are dependent to varying degrees on available funding, staff capacity, and community interest in and capacity to partner in the work.

C.1 - Existing Commitments for 2025-2030

King County will continue its work to identify shared priorities and deepen understanding of resilience hub characteristics, governance models, and implementation pathways. To do so, ECO will build on conversations with K4C members and interested community partners to explore how to support resilience hubs in ways that meet the unique needs of local jurisdictions and communities.

Additionally, King County will continue to implement the Climate Pollution Reduction Grant (CPRG) program, Energize Program, and the expansion of EV charging infrastructure, all of which support key components of resilience hubs, including building electrification, energy security, and access to cooling. Implementation of new programs such as the CPRG program will support heat pump installation, weatherization, and upgrades to multipurpose community buildings. These programs may be applied to candidate hub locations identified in Section B of this report. Furthermore, King County is building on work already underway, including the Green Buildings Program, which demonstrates how sustainable and resilient practices can be embedded in facility design and retrofits.

King County will also implement actions in the 2025 SCAP, 2024 Extreme Heat Mitigation Strategy, and 2025 King County Regional Hazard Mitigation Plan that directly address resilience hubs and/or expanding community access to cooling locations. More specifically:

2025 SCAP:

- *SRFC 16: Find gaps, identify goals, and implement strategies that build frontline community resilience to climate hazards.* Across agencies, plans, and programs, King County is working to strengthen a regional response to climate hazards. Yet there are ongoing gaps that create barriers for frontline communities to necessary information and resources in real time. The County will partner with agency and community partners to identify persistent gaps and develop goals and implement strategies to address them. Actions may include developing social network mapping to show how groups across geographies are or are not interacting and where additional investments are needed for maximum impact. Investments could look like focused distribution of culturally relevant and in language communications (see SRFC 9), training on how to respond to extreme weather events (see PREP 20 and PREP 21), emergency response coordination (see SRFC 18), and developing a better understanding of how and where resource hubs could benefit frontline communities.
- *Prep 20: Expand access to cooling locations for communities.* King County will work with community partners and local jurisdictions to identify opportunities and support the development of cooling locations at community-trusted facilities. Support provided can range from identifying potential locations and site hosts, assisting facilities with obtaining cooling-related resources and upgrades, training community-based organization staff to operate cooling locations, and connecting community facility staff to Resilience Hub resources if interested.
- *Prep 49: Seek funding to increase rural community resilience.* King County will seek grant funding to enhance community resilience in rural areas to climate-related events such as extreme weather, wildfire, wildfire smoke, and other emergencies. Initial efforts will be focused on Skykomish and Vashon Island. Contingent on grant funding, work on this action will include identifying existing structures that can serve as resilience hubs in Skykomish and Vashon Island; providing heating, ventilation, and air conditioning upgrades and seismic retrofits to identified structures, and creating wildfire defensible spaces. Additional activities include hosting disaster skills training workshops, helping to equip hubs with emergency supplies and resources, and creating and maintaining partnerships with local organizations.

2024 King County Extreme Heat Mitigation Strategy:

- *Action 4: Enhance Cooling Centers.* This action calls on King County agencies and local governments to support increased community access to, and use of, public cooling centers.
- *Action 5: Expand access to cooling location options to include more community-trusted locations.* This action calls on partners to support the development of more community-trusted cooling locations by: working with frontline community partners to identify potential locations and site hosts, equipping community facilities with the necessary resources and upgrades to serve as a cooling location, training CBO staff to organize and operate cooling locations, and supporting the creation of resilience hubs.

2025 King County Regional Hazard Mitigation Plan:

- *Action 20.7.10: Enhanced Cooling Centers.* This action focuses on increasing the utilization of cooling centers through staffing improvements, enhanced amenities, and better transportation options, particularly for communities with elevated heat risks.
- *Action 20.7.33: Expand access to cooling locations for communities.* This action, shared with Action 5 in the King County Extreme Heat Mitigation Strategy (see above), seeks to ensure

equitable access to safe, welcoming, and community-trusted cooling locations throughout King County.

C.2 - Additional Potential Activities

Moving forward, several near-term and longer-term opportunities may support resilience hub development. As resilience hubs can vary based on community needs, King County could take a role in supporting communities and jurisdictions in their efforts to define what a resilience hub is for locally relevant contexts and prioritize core components that would need to be included for a space to be considered a resilience hub. King County could work with local jurisdictions to develop a set of resources and tools to support this work, including site criteria, engagement tools, and operational guidance. This would support jurisdictions and CBOs exploring hub feasibility and co-development (2025–2026).

Future opportunities and possible next steps (funding dependent) could include launching a capacity-building program for interested local jurisdictions and CBOs, conducting further community engagement (as discussed in the community engagement plan in Section B), or providing gap or seed funding for resilience hub planning and implementation. These potential next steps would require additional funding and staffing (2026 and beyond).

C.3 - Timeline for Next Steps and Anticipated Resource Needs

The timeline below synthesizes the key next steps King County and partners will take to advance resilience hub planning and implementation, building on existing commitments and identifying future opportunities (further detailed in Section C.1 and Section C.2). The timeline reflects a phased approach and incorporates associated resource needs to support implementation.

***2025 – Implement Existing Commitments and Build Foundation for Hubs**: Launch and align programs that support hub components; define shared priorities and tools to guide planning.*

Key Activities:

- Implement CPRG-funded upgrades to multipurpose community buildings.
- Continue partnership building and alignment with jurisdictions (such as K4C members) and CBOs.
- Advance SCAP SRFC 16 activities (gap analysis, social network mapping).
- Support cooling center and resilience hub planning and alignment through Heat Strategy Action 4 and Regional Hazard Mitigation Plan Action 20.7.10.
- *(optional)* Begin to support community-led resilience hub planning and design through the development of site criteria, engagement tools, templates, etc.

Anticipated Resource Needs:

- **1.0 FTE – Climate Preparedness Coordinator (ECO):** Hired in early 2025 to lead program coordination, engagement, and research.
- **1.0 FTE – Emergency Management Program Coordinator (OEM):** Continues work to align emergency operations through extreme weather shelters and enhancing climate resilience.

2026–2027 – Deepen Community Engagement, Feasibility Planning, and Capacity-Building: *Strengthen partnerships, explore site feasibility, and build local capacity.*

Key Activities:

- Host community engagement workshops (Section B).
- Distribute and apply resilience hub resources, tools, guidance for community-led site planning.
- Support feasibility studies, especially in rural areas (SCAP PREP 49 – Skykomish and Vashon Island).
- Train CBOs on operations (EHMS Action 5); support facility assessments and governance models.
- Begin peer exchanges and regional learning opportunities.

Anticipated Resource Needs:

- Continued funding for **ECO and OEM staff positions** (2.0 FTE total).
- **Programmatic Support ($75K/year):** Materials, workshops, translation, and facilitation.
- *(optional)* **Community-Facing Activities ($25K/year):** Peer learning, co-design sessions, and training workshops.
- *(optional)* Initial engagement and planning around community-led resilience hubs (site readiness, community-led process, research and design, etc.).

2028–2030 – Support Community-led Hubs and Expand Regional Coordination: *Support and evaluate resilience hub pilots; build regional coordination and support.*

Key Activities:

- Support implementation of community-led hubs through resources, tools, coordination, and connections.
- Continue cross-jurisdictional coordination and monitor implementation outcomes.
- Refine policy guidance based on lessons learned.
- *(optional)* Provide seed or gap funding to support the development and launch of resilience hubs in the community.

Anticipated Resource Needs:

- Sustained investment in **2.0 FTE (ECO + OEM)** for implementation support and coordination.
- Ongoing **programmatic support ($75K/year)** for evaluation, materials, and outreach.
- *(optional)* **Funding for Community-Led Hubs ($50K–$250K per site):** Supports capital capacity planning/building, hub planning and design, upgrades and operational costs for two to five community-trusted sites. Note that, funding dependent, capital upgrades may be limited in scale and are project dependent.
- *Optional expansion of staffing within OEM depending on program scale and coordination needs.*

These investments are critical to sustaining momentum, advancing equitable climate resilience across the region, and ensuring that resilience hubs are community-driven, inclusive, and responsive to local priorities.

V. Conclusion and Next Steps

This report summarizes King County's progress toward supporting resilience hubs and outlines opportunities for continued planning, coordination, and investment. While the County does not directly operate resilience hubs, it is actively advancing many of the core components, through clean energy programs, public health strategies, infrastructure upgrades, and partnerships with community-based organizations. These efforts align with key policy priorities, including the Strategic Climate Action Plan (SCAP), Equity and Social Justice Strategic Plan, Extreme Heat Mitigation Strategy, and the Regional Sheltering Plan, among other plans. Together, these frameworks emphasize the importance of equity, community leadership, and coordinated action to reduce climate risks and build lasting community resilience. The County's work also reflects its True North values, including racial justice, partnership, and delivering measurable results.

A consistent theme throughout this report is that effective resilience hubs are rooted in community-defined needs, accessible infrastructure, and trusted relationships. Jurisdictions across King County are piloting various hub models, often through collaborative efforts with community organizations and regional partners. These models underscore the importance of flexibility, shared learning, and long-term support.

The fiscal and administrative realities of 2025, including state and federal budget constraints, mean that new and creative funding models, cross-sector partnerships, and community-driven planning efforts are needed to support implementation. This includes both initial investment and long-term operations. Despite these challenges, resilience hubs and networks can be designed to be adaptable, scalable, and deeply rooted in place-based needs making them a benefit for the community in blue and grey sky days.

The development of this report required coordination across departments, cities, and community partners. It reflects a growing regional commitment to advancing equitable, community-centered climate resilience. As King County navigates resource constraints and climate uncertainties, this work lays the foundation for future investment, engagement, and cross-jurisdictional action to ensure that all communities are prepared for, and supported through, both everyday challenges and climate-related emergencies.

VI. Appendices

Appendix A: Regional Operational Plan for Extreme Weather Centers and Disaster Sheltering
Appendix B: K4C Survey

Appendix A: Regional Operational Plan for Extreme Weather Centers and Disaster Sheltering

Appendix B: K4C Survey

K4C Resilience Hubs Survey

Purpose:
We're reaching out to K4C Partners to Understand jurisdiction needs, progress, and partnership opportunities related to resilience hubs and community resilience networks.

What is a resilience hub?
A resilience hub is a trusted, community-serving facility that supports people before, during, and after climate-related events like extreme heat, wildfire smoke, storm events, or power outages. Hubs operate year-round and during emergencies to provide services such as clean air, cooling or heating, power access, and essential resources tailored to local needs.

START: **Which option best describes where your jurisdiction is with regards to resilience hubs?** *Choose one.*

A. We have one or more designated resilience hub sites
B. We are currently working on or planning to establish one or more resilience hubs
C. We are exploring the idea
D. We have not explored the idea
E. We explored the idea and are not moving forward

If A - We have one or more designated resilience hub sites

A1. Please briefly describe the location(s), use(s), and lead entity(ies) for your hub(s). *(Open-ended)*
A2. Have you had the need to use your resilience hub during an event?

- Yes
  - *If yes:* **We would like to set up an interview to learn more about the operation of your hub and lessons learned to date. Please list any others who should be part of that interview. We will contact you to schedule that interview.**
- No

A3. Is your jurisdiction interested in expanding its community resilience network to include more hubs?

- Yes *(if selected, goes to A4)*
- Considering *(if selected, goes to A4)*
- No
  - *If no:* **please tell us why your jurisdiction is not interested.** *(Open-ended, short response)*

If yes or considering:
A4. Have you identified specific locations or facilities that could serve as resilience hubs?

- Yes
  - *If yes:* **Please briefly describe the site(s), including whether they are public, private, or community-owned.** *(Open-ended)*
- Not yet

A9. Have you identified potential community partners, facility owners, or institutions?

- Yes
    - *If yes:* **Please list any known or potential partners and their roles (if applicable**). *(Open-ended)*
- Not yet

A10. How do you currently fund or plan to fund improvements and operations for resilience hubs? *(Select all that apply: general fund, state or federal grants, local measures, philanthropy, public-private partnerships, not yet identified, other:____)*

A11. What other information or resources would help your work on resilience hubs? *(Select all that apply: dedicated funding, case studies, toolkits, staffing models, policy support, community engagement tools, evaluation and metrics frameworks, peer learning or networking opportunities, other:____)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If B - We are currently working on or planning to establish one or more resilience hubs

B1. Have you identified specific locations or facilities that could serve as resilience hubs?

- Yes
    - **If yes: Please describe the site(s), including whether they are public, private, or community-owned.** *(Open-ended)*
- Not yet

B2. Have you identified potential community partners, facility owners, or institutions?

- Yes
- Not yet

If yes: **Please list any known or potential partners and their roles (if applicable).** *(Open-ended)*

B4. How do you currently fund or plan to fund improvements and operations for resilience hubs? *(Select all that apply: general fund, state or federal grants, local measures, philanthropy, public-private partnerships, not yet identified, other:____)*

B5. What are some of the concerns or challenges you have or anticipate having when establishing resilience hubs? *(Select all that apply: staffing, coordination, funding, lack of examples, community trust, unclear responsibilities, political support, other: _____)*

B6. What other information or resources would help your work on resilience hubs? *(Select all that apply: dedicated funding, case studies, toolkits, staffing models, policy support, community engagement tools, evaluation and metrics frameworks, peer learning or networking opportunities, other:____)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If C - We are currently working on or planning to establish one or more resilience hubs

C1. Have you identified specific locations or facilities that could serve as resilience hubs?

- Yes
  - **If yes: Please describe the site(s), including whether they are public, private, or community-owned.** *(Open-ended)*
- No

C2. Have you identified potential community partners, facility owners, or institutions?

- Yes
  - **If yes: Please list any known or potential partners and their roles (if applicable).** *(Open-ended)*
- No

C3. What is motivating your jurisdiction to pursue resilience hubs? *(Select all that apply: community needs, climate impacts, equity goals, state funding, federal funding, local funding, peer city examples, disaster preparedness gaps, community interest, other:___)*
C4. Based on what you know at this time, how likely is it that your jurisdiction will move forward with creating a hub. *(Check-box scale response: likely, somewhat likely, not likely)*
C5. What are some of the concerns or challenges you have or anticipate having when establishing resilience hubs? *(Select all that apply: staffing, coordination, funding, lack of examples, community trust, unclear responsibilities, political support, other)*
C6. How do you anticipate funding any needed improvements and operations for resilience hubs? *(Select all that apply: general fund, state or federal grants, local measures, philanthropy, public-private partnerships, not yet identified, other:____)*
C7. What other information or resources would help your work on resilience hubs? *(Select all that apply: dedicated funding, case studies, toolkits, staffing models, policy support, community engagement tools, evaluation and metrics frameworks, peer learning or networking opportunities, other:____)*
END: **Thank you for completing the K4C Resilience Hubs Survey!**
Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.
If you have any questions or would like to learn more, please contact us at .
We'll be in touch with next steps and opportunities to continue this important work together.

If D - We have not explored the idea.

D1. Is your jurisdiction interested in exploring resilience hubs in the future?

- Yes *(if selected, goes to D2)*
- No *(if selected, goes to D3)*
- Not sure *(if selected, goes to D3)*

If "Yes"

D2. What is motivating your jurisdiction's interest in resilience hubs? *(Select all that apply: community needs, climate impacts, equity goals, state funding, federal funding, local funding, peer city examples, disaster preparedness gaps, community interest, other:___)*

If "No" or "Not sure"

D3. What are the main reasons your jurisdiction has <u>not</u> explored resilience hubs? *(Select all that apply: Lack of political support, Limited access to information, Insufficient resources or funding, Staff or capacity constraints, other)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If E - We explored the idea and are not moving forward

E1. What factors have led you to <u>not</u> move forward with resilience hubs? *(Select all that apply: Lack of political support, Lack of funding, Lack of partners, Staff or capacity constraints, Availability of facilities, Other)*

E2. Of the list above, which were the biggest barriers? *(Check 3)*

Lack of political support, Lack of funding, Lack of partners, Staff or capacity constraints, Availability of facilities, Other)

E3. What might encourage or enable your jurisdiction to revisit resilience hubs in the future? *(Select all that apply: technical support, dedicated funding, peer learning, templates/toolkits, staffing, local political support, other)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

Appendix A

Regional Operational Plan for Extreme Weather Centers and Disaster Sheltering

June 2024

King County

I. Contents

II. Motion 16183

Motion 16183 requests the Executive coordinate across King County agencies, cities, the King County Regional Homelessness Authority, the state and other partners to develop a regional operational plan for extreme weather centers and disaster sheltering, with a special focus on the most vulnerable King County residents.[1, 2] In addition, the Motion calls for community information gathering engagement, facility information, and best practices for heat, cold, and smoke.

III. Executive Summary

In recent years, King County has experienced an increase in the frequency and severity of severe weather events. Following the Heat Dome in 2021 that cost the lives of over 30 residents in King County and more than 400 across the state, Motion 16183 called for a focus on the most vulnerable individuals.[3, 4] King County conducted community outreach in partnership with non-profit organizations to gather a better understanding of available community resources, as well as gaps and community wants and needs.[5] Recommendations and suggestions for extreme weather events presented in this report are based on accepted best practices, literature review, existing plans, policies, and procedures, consolidated community input, assessment of available resources, and assignment of associated costs.

Extreme weather events are an ongoing threat. As widely reported, heat has the most impact on the homebound and elderly. Cold is an issue for all, especially those experiencing homelessness and those without proper access to heat. Wildfire smoke can be a risk for those individuals with respiratory or cardiovascular disease, people who are pregnant, older adults, and children.[6]

In 2021, the King County Office of Emergency Management (KCOEM) created incident specific playbooks focused on identifying expected actions, roles, and responsibilities for KCOEM, County agencies, and critical response partners. These playbooks focus on heat, cold, and smoke, and discuss response operations, levels of coordination, and potential impact on the community. Building off of these playbooks, KCOEM developed an operational plan for extreme weather centers and disaster sheltering. This sheltering plan provides a process and documents the necessary actions needed to open and

[1] Motion 16183 [Link][2] Motion 16183 specifies the most-vulnerable residents shall include, but are not limited to, unhoused people, low-income people who live in housing without adequate protection from extreme weather and senior citizens or those with disabilities without adequate protection from extreme weather.
[2] Motion 16183 specifies the most-vulnerable residents shall include, but are not limited to, unhoused people, low-income people who live in housing without adequate protection from extreme weather and senior citizens or those with disabilities without adequate protection from extreme weather.
[3] In the Hot Seat: Saving Lives from Extreme Heat in Washington State [Link]
[4] King County to develop its first-ever Extreme Heat Mitigation Strategy [Link]
[5] YMCA, Nickelsville Tiny House Village, and United Territories of Pacific Islanders Alliance
[6] Wildfire Smoke Report, Environmental Law Institute [Link]

operate a disaster shelter or extreme weather center during extreme weather and all hazard events. The plan uses existing best practices documented by the Federal Emergency Management Agency (FEMA) as well as the American Red Cross (ARC). The aim of the playbooks and the sheltering plan is to provide a strong set of actions and priorities to protect the people of King County during extreme weather events and other disasters.

KCOEM, additional King County departments, and community organizations conducted multiple community outreach events to inform the findings in this report and the sheltering plan.[7] These activities fall into two broad categories: whole community outreach in the form of surveys, and targeted outreach to vulnerable populations in the form of listening sessions. The surveys reached more than 1,300 King County residents. Additionally, five listening sessions were held with community groups. Through these surveys and listening sessions, KCOEM was able to ascertain some common needs in extreme weather centers and disaster shelters, including easy transportation to extreme weather respite locations, additional funding for air conditioning in community spaces, additional community hydration locations, shelter for pets, misting stations, increased public information, and additional information around the health impacts of extreme weather and smoke.

KCOEM also worked with the King County Facilities Management Division (FMD), Public Health - Seattle & King County (PHSKC), and community partners to identify King County, city, and community partner facilities that could potentially be used as extreme weather centers or shelters. Through this process, KCOEM created lists and maps of potential extreme weather centers and disaster shelter locations. These lists and maps will need to be updated as conditions change, as they provide a point in time view of available existing spaces that could serve as extreme weather centers or disaster shelters. While identifying facilities, KCOEM also obtained information around potential facility updates. Through direct discussion with subject matter experts at FMD, the cost to upgrade facilities heating, ventilation, and air conditioning (HVAC) was determined to vary widely given the size of the building and existing infrastructure. Upgrades and/or installations can range from hundreds of thousands to millions of dollars. As such, buildings that can potentially serve as an extreme weather center or disaster shelter would need to be evaluated individually.

In addition to finding potential facilities, KCOEM also identified a staffing model, which can be utilized in both extreme weather centers and disaster shelters and is scalable with both number of clients seeking shelter as well as the number of shelters opened. The estimated cost associated with staffing is between $1,392 and $1,689 for a 12-hour shift; this cost includes two shelter workers, one security worker, and one part time custodian.

Additionally, KCOEM reached out to the Washington State Department of Social and Health Services (DSHS) and Washington Health Care Association (WHCA) to obtain information about the percentage of long-term care facilities with air conditioning. However, neither agency was able to provide the requested information. KCOEM undertook independent research and found that generally, the Seattle

[7] King County departments and community partners are listed in the report methodology.

metro area has air conditioning in around 53 percent of homes, according to the U.S. Census.[8] Additionally, Section 388-78A-2990 of the Washington Administrative Code (WAC) contains temperature limits for assisted living facilities; the regulation requires buildings where the dry bulb temperature exceeds 85 degrees Fahrenheit 2 percent of the year to have air conditioning that is capable of maintaining a temperature of 75 degrees Fahrenheit.[9]

KCOEM also continues to run an Emergency Blog that provides up-to-date relevant information during extreme weather events and disasters.[10] The Emergency Blog has been utilized to provide information to the public, amplify partner information, and ensure that best practices on how to stay safe during extreme weather events are shared. Additionally, WA 2-1-1 utilizes the Emergency Blog to provide information on shelter and extreme weather centers inside of King County.

The KCOEM Sheltering Operations plan and the KCOEM playbooks provide strong guidance on how KCOEM and King County and other partners will act before, during, and after extreme weather events and disasters with regard to cooling/warming/cleaner air centers and disaster shelters. These documents, combined with other emergency management plans, create a strong foundation of planning that guide KCOEM and all emergency management enterprise partners to create better results for the residents of and visitors to King County. Additionally, with the findings in this report, multiple options for increasing community resilience are suggested, such as providing transportation and other wrap-around services to extreme weather and cleaner air centers and disaster shelters, extending hours of cooling centers and providing resource support for surge staffing, cooling options for pets, additional funding sources to update existing community spaces with air conditioning, shelter and extreme weather center training for city and county employees as well as community organizations, and misters in parks/transit hubs/plazas. These suggestions aim to assist community members by strengthening trusted spaces and providing additional needed services.

[8] Seattle Times [Link]
[9] WAC 388-78A-2990 [Link]
[10] King County Emergency Blog [Link]

IV. Background

Department Overview:

The Department of Executive Services (DES) provides public services directly to King County residents and internal services to King County government agencies. The divisions and offices that make up DES include the Business Resource Center, Finance and Business Operations Division, Office of Emergency Management, Facilities Management Division, Fleet Services Division, Inquest Program, King County International Airport-Boeing Field, Office of Risk Management Services, and the Records and Licensing Services Division.

The King County Office of Emergency Management (KCOEM), pursuant to King County Code (KCC) 2.56, is responsible for preparing and planning for disasters and emergencies, as well as providing effective direction, control, and coordination of County government emergency services functional units before, during, and after emergencies and disasters.[11] KCOEM liaises with other governments and the private sector. It serves as the coordinating entity for cities, County governmental departments, and other agencies before, during, and after emergencies and disasters. This work is done in compliance with a state-approved comprehensive emergency management plan.[12]

KCOEM implements strategies and conducts activities to enhance the capability and capacity of the King County region to prepare for, and then operate in, all types of emergency and disaster situations across five mission areas: prevention, protection, mitigation, response, and recovery. Preparedness establishes the risk environment; establishes frameworks for roles, responsibilities, tasks; provides for integration of various capabilities; and uses training and exercises to validate and revise those capabilities. These capabilities can then be executed, or operationalized, prior to, during, and after emergencies and disasters. Capabilities, in the context of emergency management and throughout this report, are distinct, yet interdependent elements that provide the means to accomplish missions, functions, or objectives through the execution of related tasks.

In July 2022, King County earned its second accreditation through the Emergency Management Accreditation Program (EMAP). EMAP accreditation demonstrates that King County has proven its capabilities in disaster preparedness and response systems. Overall, the EMAP process ensures that programs evaluate plans, policies, and procedures to gauge compliance with standards certified by the American National Standard Institute (ANSI). The KCOEM-led full accreditation means that the County's emergency management enterprise demonstrated compliance with 64 standards considered by the industry to be performance criteria for emergency management programs.

As of May 2024, there were only 91 accredited programs worldwide. King County is one of only 24 accredited counties in the United States, and one of five programs in Washington State. EMAP

[11] KCC 2.56.030 [Link]
[12] KCC 2.56.040 [Link], RCW 38.52.070 [Link]

accreditation is valid for five years and the program must maintain compliance with the Emergency Management Standard through submissions of annual reports. Programs are completely reassessed every five years to maintain accreditation status.[13]

Key Historical Context:

Climate change has a direct tie to the number and severity of extreme weather events.[14] King County has experienced numerous examples of extreme weather in recent years including eight days of unhealthy and very unhealthy smoke days in 2020, the 2021 heat dome which cost the lives of over 30 residents of King County, and the January cold snap of this year that caused the deaths of five persons in the Seattle area.[15, 16, 17] Additionally, the impacts created by climate change are felt most keenly by low-income households, the elderly, the young, Black, Indigenous, and People of Color (BIPOC) communities, and those experiencing homelessness. "The region is seeing projections for clear increases in frequency of extreme heat events, declining snowpack, ocean acidification, and more frequent flooding" as well as "respiratory issues from prolonged wildfire smoke."[18]

The U.S. Environmental Protection Agency (EPA) tracks heat related deaths, attributing heat as the cause of more than 11,000 American deaths between 1979 and 2018.[19] Heat waves are expected to increase in intensity and duration, with the frequency of hot days increasing with a high degree of certainty.[20] Washington has averaged three days of extreme heat per year between 1971 and 2021, and this is expected to increase to between 17 and 27 by the 2050s.[21]

Similar to heat, the EPA tracks deaths related to cold temperatures across the United States, with more than 19,000 Americans dying from cold since 1979.[22] Cold is an ongoing issue that has the most impact on those already vulnerable, causing harm to those experiencing homelessness, those with underlying medical conditions, and lower income residents. With these effects come cascading impacts, such as carbon monoxide poisoning from individuals attempting to stay warm through dangerous activities such as burning charcoal indoors.[23] Extreme cold does not show the same trend to worsening conditions as extreme heat, instead having more variability year over year. This is evidenced by events like the cold temperatures on December 27, 2023, the coldest day in 31 years for the Seattle area.[24]

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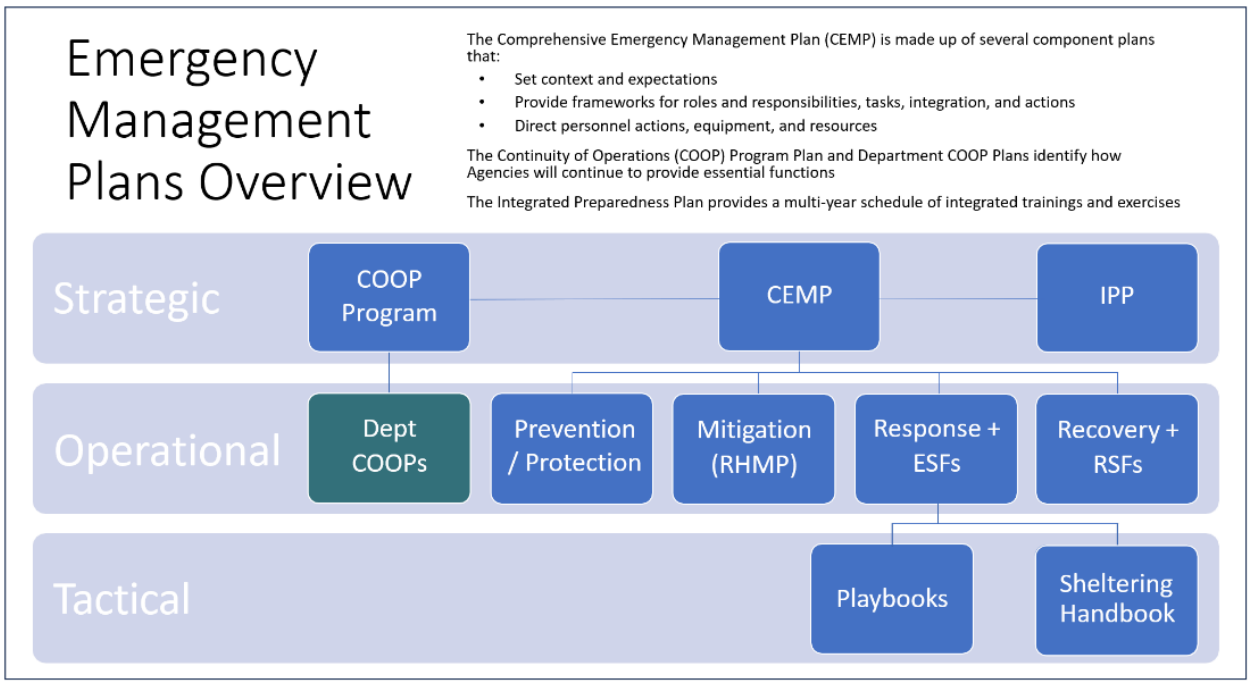
[13] EMAP Emergency Management Standards [Link]
[14] NASA Extreme Weather and Climate Change [Link]
[15] Clean Air Agency 202 Air Quality Data [Link]
[16] King County to develop its first-ever Extreme Heat Mitigation Strategy [Link]
[17] King 5: 5 people died due to hypothermia during extreme cold temps in Seattle area [Link]
[18] King County Strategic Climate Action Plan [Link]
[19] Climate Change Indicators: Heat-Related Deaths [Link]
[20] History of Pacific Northwest Heat Waves: Synoptic Pattern and Trends [Link]
[21] In the Hot Seat: Saving Lives from Extreme Heat in Washington State [Link]
[22] Climate Change Indicators: Cold-Related Deaths [Link]
[23] Extreme Weather Events: A Discussion Paper about Community Resilience [Link]
[24] King 5: Seattle Experiences Coldest Day in 31 Years [Link]

Wildfire smoke is also increasingly prevalent in western Washington, from fires in our area, fires states away, and fires in Canada. Wildfire smoke does not have the same premature death tracking as other hazards discussed; this is partially due to preexisting air quality issues in many locations. Air quality modeling, for the period 2012 to 2014, indicates that wildfire emissions could have contributed, annually, to 4,000 cases of premature mortality across the United States.[25] Additionally, fires have increased in frequency and intensity: 61 percent of major western US fires have occurred since the year 2000, and megafires, those burning over 100,000 acres, have steadily increased as well.[26]

Key Current Context:

KCOEM is responsible to ensure coordination among entities and jurisdictions around planning for and responding to emergencies and disasters. Emergency operations have many layers of complexity, and, over time, emergency managers have come to rely on multiple methods and resources to ensure all relevant parties are operating with the same facts and assumptions. KCOEM efforts are addressed through multiple nested emergency plans, beginning with the Comprehensive Emergency Management Plan (CEMP), as noted in Figure 1, below.[27]

Figure 1 - Emergency Management Plans Overview



[25] Qualifying the Premature Mortality and Economic Loss from Wildfire-Induced $PM_{2.5}$ in the Contiguous U.S. [Link]
[26] NASA: Six Trends to Know about Fire Season in the Western U.S. [Link]
[27] Comprehensive Emergency Management Plan [Link]

The CEMP is a strategic plan that guides elected and appointed County officials, King County government department directors, managers and staff, and County partners (39 King County cities, 120+ special purpose districts, nonprofit organizations, etc.) in preparing and planning for, and carrying out emergency functions pursuant to the Revised Code of Washington (RCW) 38.52.0708 and King County Code (KCC) 2.56.040. The CEMP also references and incorporates other plans and programs, including the Continuity of Operations (COOP) Program and technology to support emergency management coordination.

The CEMP includes four nested operational support plans:

- The Prevention/Protection Plan, which is designed to coordinate actions and activities that support preventing or stopping terrorism and protecting people and assets from the greatest threats and hazards;
- The Regional Hazard Mitigation Plan (RHMP), which is designed to coordinate actions and activities that reduce the impacts of threats and hazards and/or reduce vulnerabilities to threats and hazards;[28]
- The Response Plan, which is designed to coordinate actions and activities for saving and sustaining lives, stabilizing emergency incidents, and protecting property and the environment, and;
- The Recovery Plan, which is designed to coordinate actions and activities for timely restoration, strengthening, and revitalization of infrastructure, housing, the economy, and key health and social attributes of the community.

Under the CEMP fall the KCOEM Heat, Cold, and Smoke Playbooks, which sit alongside the new KCOEM Sheltering Operations plan. Additionally, KCOEM emergency management plans work to align with planning efforts from different King County partners to coordinate emergency management activities.

- KCOEM Heat, Cold, and Smoke Playbooks – The playbooks provide a roadmap to County departmental roles and responsibilities during extreme weather and smoke emergencies.[29, 30, 31]
- Department of Natural Resources and Parks (DNRP) Heat Map – By mapping heat across the area this map assists in where response, preparedness and mitigation activities are targeted.[32]
- PHSKC heat, cold, and smoke guidance – The guidance provides actions for the public to take, as well as establishes thresholds for needed action.[33, 34, 35]

[28] King County Regional Hazard Mitigation Plan [Link]
[29] KC Extreme Heat Incident Playbook [Appendix L]
[30] KC Extreme Cold, Snow, and Ice Incident Playbook [Appendix K]
[31] KC Smoke Incident Playbook [Appendix M]
[32] Department of Natural Resources and Parks Heat Map [Link]
[33] Public Health extreme heat response [Link]
[34] Public Health how to treat and prevent hypothermia [Link]
[35] Public Health wildfire smoke preparedness [Link]

- Blueprint for Addressing Climate Change and Health – Assists in defining King County's commitment to addressing climate change impacts, especially in those most vulnerable pockets of our community; the Blueprint offers a unique and necessary approach to incorporating health and equity into climate change.[36]
- Strategic Climate Action Plan (SCAP) – The SCAP also helps to link together climate change, and the impacts thereof, with all areas of County operations.[37]
- King County Regional Homelessness Authority (KCRHA) Severe Weather Policy – The policy provides additional guidance on partner response as well as best practices on assisting our unhoused neighbors.[38]
- KCOEM Sheltering Operations plan – This document provides guidance on the process of identifying, activating, operating, and deactivating a shelters and extreme weather centers.[39]

Report Methodology:

This report provides information around the adverse impacts of extreme weather events and smoke. It was assembled with the assistance of multiple King County departments and partner agencies:

- KCOEM provided coordination, research, and direct community outreach;
- FMD assisted with multiple cost estimates and the mapping of potential shelter locations;
- DNRP provided community outreach and data support;
- the Department of Local Services (DLS) assisted with surveys;
- the Department of Community and Human Services (DCHS) provided guidance and information specific to senior centers;
- KCRHA provided community outreach and subject matter expertise; multiple cities in King County assisted by providing shelter locations; and,
- Community partners provided some input as well as assistance with direct outreach.

The information gathered for this report came through direct community engagement in the form of discussion and surveys. A literature review was conducted to identify specifics on impact and changing conditions, including news articles to gather further understanding of community impacts. Various subject matter experts provided guidance on multiple parts of the project.

[36] Blueprint for Addressing Climate Change and Health [Link]
[37] Strategic Climate Action Plan (SCAP) [Link]
[38] KCRHA Severe Weather Policy [Link]
[39] KCOEM Sheltering Operations plan [Appendix B]

Community and city partners that provided information and assistance include.

- Seattle
- Des Moines
- Kirkland
- Maple Valley
- Black Diamond
- North Bend
- Newcastle
- Redmond
- Issaquah
- Baring Fire Department
- Highline College
- Bellevue College
- Nickelsville Tiny House Village
- City of Seattle Aging and Disability Services
- Chinese Information and Services Center
- United Territories of Pacific Islanders Alliance Washington

With King County's continued commitment to climate change, multiple plans are referenced in this report and are listed under the key current conditions section of this report.

Initial Report Findings:

The initial findings identify the desired features of extreme weather centers and disaster shelters as outlined in this report. Some reflect best practices identified by subject matter experts and drawn from scientific literature review, while others are from community outreach data and current capabilities, as cited. Fulfilling these findings could provide additional support to the residents of and visitors to King County during extreme weather and smoke events.

These findings, summarized below, are conceptual and need further deliberation, discussion, and planning prior to implementation. Additional actions may be developed to meet the needs of the most vulnerable in the community as necessary and appropriate. The six suggested findings are listed below.

1. Provide transportation and other wrap-around services to extreme weather centers and disaster shelters (entertainment, information, disability access, language interpretation, etc.).

   In an effort to provide additional support to the residents of and visitors to King County, additional wrap around services could be provided before, during, and after extreme weather events. This would increase transportation options for residents and aid in communicating what services are available to those who may need them. Sub actions include:

   - Promote and advertise transit options to and from extreme weather respite locations.
   - Offer additional incentives such as snacks, bottled water, Wi-Fi access, and the ability to charge devices at extreme weather centers.
   - Increase communication around options during events and preparedness activities prior to events.
   - Specifically communicate accessibility information of the shelter/center (e.g., ADA accessible, ease of access from public transportation, etc.).

- Provide communication in multiple languages prior to, during, and following any extreme weather event.

The above-mentioned actions would increase access to lifesaving and sustaining services during extreme weather events. Providing information to residents on availability/accessibility of extreme weather centers and disaster shelters, coupled with access to transportation, and information services, would benefit multiple vulnerable populations by increasing access to critical transportation services. This work would need support from multiple King County departments and partner agencies, including revenue.

2. Extend hours of cooling centers and resource support for surge staffing.

During disasters and emergencies, individuals predominantly go to locations that are known to them where they feel safe, as evidenced in the KCOEM Survey Results.[40] Many facilities, such as senior and community centers, already act as cooling and warming centers during extreme weather. To expand this capability, facilities may consider extending hours to support vulnerable populations during extreme weather.

To facilitate the extension of hours, additional funding for staff and associated costs would be needed. During emergencies, those effected are most likely to seek shelter in locations that are known and familiar. This suggested action would likely provide immediate benefit to community members.

- In a survey conducted by DCHS, the City of Seattle Aging and Disability Services, and Age Friendly Seattle on senior center preparedness, 61 percent of senior centers answered "no" or "maybe" when asked about the possibility of extending hours. The main barrier to offering extended hours was staffing, followed by cost.

3. Provide cooling options for pets.

During emergencies, many individuals refuse to leave pets unattended while seeking shelter.[41] Options could be provided for individuals to shelter with their pets or to have pets sheltered nearby. Providing space for pets would allow those seeking respite to be more comfortable and incentivize individuals to go to extreme weather centers and disaster shelters.

- When the residents of King County were asked what features are expected in an extreme weather center, 60 percent identified "a place for pets" as important.[42] This is a higher percentage than individuals who expected comfortable seating.

[40] KCOEM Survey Results [Appendix E]
[41] Katrina's Lesson Learned [Link], KCOEM Survey Results [Appendix E]
[42] KCOEM Survey Results [Appendix E]

- It was also echoed in outreach conducted by the DNRP with respondents from the Nickelsville Tiny House Village stating that they will not leave pets to come to extreme weather centers.

4. Provide a funding source to update existing community spaces with Air Conditioning (AC) and Heating, Ventilation, and Air Conditioning (HVAC).

   During extreme weather and smoke events it is imperative that the community has the ability to seek shelter that is temperature controlled and free of harmful smoke and particulate matter, as evidenced by the over 30 lives lost in King County during the 2021 heat dome as well as the correlation between smoke and premature mortality.[43, 44] Extreme weather and smoke carry an increased risk of death; heat and smoke create a synergistic effect causing a 21 percent increase in risk of death.[45] Only around 53 percent of Seattle area homes have air conditioning.[46]

   - Senior centers have a higher rate of air conditioning compared to homes, but still only have 74 percent coverage.[47]
   - Trusted sites such as community and senior centers need a mechanism for securing the correct equipment to comfortably and safely provide space for residents of King County.
   - In the past, King County, through PHSKC, has provided individuals with box fan kits aimed at purifying indoor air. Programs such as this could be continued, and additional funding made available for community spaces currently lacking the infrastructure to keep indoor air quality reasonable.

5. Provide shelter and extreme weather center training for County and city employees, as well as community organizations.

   Having a robust cadre of trained workers able to assist during extreme weather events is imperative to staff extreme weather centers and disaster shelters. It may be beneficial to develop a training program that would allow County, city, and community organizations to attend to and shelter the most vulnerable in extreme weather events and disasters.

6. Install misters in parks/transit hubs/plazas.

   In addition to buildings that offer respite during extreme weather, alternative options could be considered as well. One such option suggested would be to place misters in public spaces during the summer months. Experiences by neighboring areas, such as Portland, indicate that misters should

[43] King County to develop its first-ever Extreme Heat Mitigation Strategy [Link]
[44] Qualifying the Premature Mortality and Economic Loss from Wildfire-Induced $PM_{2.5}$ in the Contiguous U.S. [Link]
[45] Risk of Death Surges when Extreme Heat and Air pollution Coincide [Link]
[46] Seattle Times [Link]
[47] Senior Center Emergency Readiness [Appendix D]

remain in a set location for the entirety of the hottest months. This action would allow residents to return to a known location to seek cooling.

V. Report Requirements

A. Coordinate across King County agencies, cities, the King County Regional Homelessness Authority, the state and other partners to develop a regional operational plan for extreme weather centers and disaster sheltering, with a special focus on the most vulnerable.

In 2021, KCOEM began work on the development of incident specific playbooks that identify expected actions, and roles and responsibilities for KCOEM, King County agencies, and other critical response partners.[48, 49, 50] The playbooks outline essential activities for key patterns during the preparedness and response operations phases; for instance, given notice of the potential for an extreme heat event, KCOEM convenes partners identified in the playbook for coordination calls to discuss response operations, levels of coordination, and the potential impact to the community. The Extreme Heat Playbook was developed in 2021 and updated in subsequent years to align with the National Weather Service Heat Risk Tool, along with guidance from agencies such as PHSKC, DHCS, and KCRHA.

KCOEM continued development of additional playbooks to outline the actions, critical tasks, roles and responsibilities, and coordination elements for smoke, extreme cold/snow/ice, and heat incidents. Additionally, KCOEM continues to socialize the playbooks with partners who are expected to provide updates on a regular basis.

Building on the foundation set by these playbooks, KCOEM has developed a disaster sheltering guide, the Sheltering Operations plan.[51] The plan provides a process and documents the necessary actions to open and operate an extreme weather center or disaster shelter during extreme weather and all hazards events. The plan uses national best practices from FEMA and the ARC. Additionally, the city of Tukwila Emergency Management played an integral role in the development of the sheltering plan, providing expertise and assistance. In combination, the playbooks and sheltering plan create a strong set of actions and priorities for preparedness and operations in response and recovery.

Additionally, KCOEM has defined disaster shelters as well as emergency weather centers. A disaster shelter is a place where people are evaluated to and receive disaster services. Water and meals are available at these locations, along with basic first aid, sleeping space, basic hygienic services, and other services, including the provision of or referral to items/services needed to accommodate persons with

[48] KC Extreme Cold, Snow, and Ice Incident Playbook [Appendix K]
[49] KC Extreme Heat Incident Playbook [Appendix L]
[50] KC Smoke Incident Playbook [Appendix M]
[51] Sheltering Operations plan [Appendix B]

functional/special/medical needs. Pet sheltering and care should be offered as resources and locations allow.

Extreme weather centers are places that people can stop in to get warm during extreme cold temperatures, get cool during extreme heat, get cleaner air during periods of poor air quality, such as resulting from wildfire smoke. These centers offer minimal other services beyond climate control, the ability to charge personal electronic devices, and basic sanitation.

A. 1. Conduct community outreach in low-income communities in unincorporated King County to gather information on the location and features that would result in the highest utilization of extreme weather centers and disaster shelters during extreme weather and other disasters.

KCOEM, with the assistance of County and community partners, developed and conducted multiple community outreach activities to inform this report and the Sheltering Operations plan, and to gather community opinion. These activities are categorized as: whole community outreach in the form of surveys, and targeted outreach to vulnerable populations in the form of listening sessions. KCOEM created and assisted with the distribution and analysis of three different outreach surveys and provided questions for listening sessions for four different community organizations.

The surveys and listening sessions provided insight into community needs before, during, and after extreme weather events. Common themes identified from community outreach include easy transit access, proper cooling and heating in community spaces, misters in public spaces, pet care, and more communication around availability of options. Figure 2 below summarizes key feedback from each engagement conducted.

The information provided below and in the following sections of this document summarizes the consolidated information gathered by the cities and the KCRHA.

Figure 2 - Outreach Results

Engagement Description	Number of Responses or Participants	Key Feedback Themes
DLS unincorporated area survey	12 Responses	• Cooling/heating centers must be walkable from transit • Funding should be provided for air conditioning in community spaces[52]

[52] DLS Unincorporated Area Survey [Appendix C]

Engagement Description	Number of Responses or Participants	Key Feedback Themes
DNRP YMCA Arcadia Youth listening session	5 Participants	• Staying hydrated outdoors is challenging • Access to transportation to cooling locations is important • Misters assist in combating the heat
DNRP Nickelsville Tiny House Village listening session	12 Participants	• Need for more places to go to stay cool, such as libraries or day centers • Need for more places that accept pets, have access to water and misting stations • More public information around the symptoms of heat exhaustion
DNRP United Territories of Pacific Islanders Alliance Washington listening session	20 Participants	• Need for more accessible cooling stations, access to open spaces, and trees • Need more partnerships between public, private, and community organizations • Changes should be made in building policy and infrastructure to provide air conditioning, especially for low-income and high risk people, and capital investment from government in community heat programs • Need additional resources and assistance to people experiencing homelessness
DNRP Chinese Information and Service Center listening session (focus on seniors)	16 Participants	• Need for additional information around health impacts, cooling sites, and parks with shade • Need for cooling locations to be known to the community and a close walk to homes and transit (under 15 minutes)
DNRP Chinese Information and Service Center listening session (focus on families with children)	15 Participants	• Need for additional information around health impacts, cooling sites, and parks with shade • Concerns about air conditioning and associated costs

Engagement Description	Number of Responses or Participants	Key Feedback Themes
		• Need for more providing information on keeping kids safe during heat events
DCHS senior centers survey	38 Participants	• Main barriers to providing additional services are staffing, followed by costs, and space[53]
KCOEM Alert King County semi-annual test and survey	1116 Responses	• 12 percent of respondents indicated that they would go to a community or senior center, mall, or other business, a cooling or warming center, or friends and family homes during an extreme weather event • 88 percent of respondents stated they would stay home[54]
KCOEM King County sheltering survey	398 Responses	• Barriers including pet care, safety concerns, lack of transportation, and that respondents are unaware of options • Most respondents get information on extreme weather through online news and local news alerts • Strong likelihood to go to friends, family, hotels, and shopping centers during extreme weather events[55]

A. 2. Encourage the cities to conduct outreach in low-income communities within their jurisdictions, to gather information on locations and features that would result in the highest utilization of extreme weather centers and disaster shelters during extreme weather and other disasters.

KCOEM encouraged cities to conduct community outreach through individual conversations, group meetings, surveys, and emails. This included speaking at the KCOEM Summer Hazards (May 16, 2024) and Winter Weather (November 16, 2023) Seminars, discussion at multiple Zone 1 and Zone 3 meetings, during OEM Regional Coordination weekly calls that routinely include multiple city partners, on Emergency Management Advisory Committee (EMAC) meetings, and regularly during monthly Mass

[53] DCHS Senior Centers [Appendix D]
[54] KCOEM Survey Results [Appendix E]
[55] KCOEM Survey Results [Appendix E]

Care Working Group meetings. Encouragement was also added in follow-up emails to many of the above-mentioned meetings.[56, 57, 58] Additionally, KCOEM and PHSKC provided two separate surveys to the cities, requesting them to work with community partners to gather information on extreme weather center and disaster sheltering locations. [59, 60] The information gathered provided extreme weather center and shelter site information and has been incorporated into the suggestions included in this report.

A. 3. Encourage the Regional Homelessness Authority to conduct outreach in unhoused communities throughout the county, to gather information on locations and features that would result in the highest utilization of extreme weather centers and disaster shelters during extreme weather and other disasters. Any locations identified to serve unhoused individuals shall strive to allow unhoused people to bring their personal belongings.

KCHRA worked in partnership with KCOEM and DNRP to provide direct outreach to individuals experiencing homelessness. This outreach utilized community partners working with persons experiencing homelessness to facilitate conversations around how extreme weather increases hardships, barriers to assistance, and what assistance is needed.[61]

The themes of these facilitated discussions highlighted the need for increased access to hydration, transportation access to cooling locations, accommodation for pets, misters in public spaces, and increased public information during weather events. The information has been incorporated into the suggestions included in this report and specifically addresses personal belongings.

A. 4. Consolidate the information gathered by the cities and the Regional Homelessness Authority with the information gathered through the county's outreach efforts in unincorporated King County. Based on that information, the executive shall also coordinate with the Regional Homelessness Authority and appropriate county, city, state, federal and tribal agencies as well as community partners and private sector businesses to identify facilities that could serve as extreme weather centers or disaster shelters.

KCOEM coordinated with KCRHA to gather information on what community members experiencing homelessness need at extreme weather facilities. This information was gathered in the form of listing sessions that took place at the YMCA Arcadia and Nickelsville Tiny House Village. KCOEM worked in partnership with FMD, city emergency managers, and community partners to identify facilities that could potentially serve as extreme weather centers and disaster shelters. A facility form to aid in the

[56] Zone 1 cities include: Beaux Arts, Bellevue, Bothell, Carnation, Clyde Hill, Duvall, Hunts Pint, Issaquah, Kenmore, Kirkland, Mercer Island, Newcastle, North Bend, Redmond, Snoqualmie, and Woodinville.
[57] Zone 3 includes: Algona, Auburn, Black Diamond, Burien, Covington, Des Moines, Enumclaw, Federal Way, Kent, Maple Valley, Milton, Normandy Park, Pacific, Renton, SeaTac, Tukwila, and Vashon.
[58] The Regional Coordination calls provide an opportunity to talk directly with local emergency management partners. This meeting often has over 40 participants.
[59] King County Government Facilities List [Appendix G]
[60] City and Community Partners Facilities List [Appendix I]
[61] Community partners - The YMCA and Nickelsville Tiny House Village

identification of sites was developed using best practices from the ARC. The form was shared with partners as a survey.[62]

In addition, FMD assisted in identifying King County facilities by analyzing existing building inventory, determining what facilities could be used or converted for use, and identifying spaces most likely to accommodate the needs of an extreme weather center or disaster shelter.

Notably, FMD has an everchanging building inventory. This means that spaces identified through the course of developing the Proviso response may not be available in weeks or months when the need arises. Thus, in order to have timely and accurate space availability information, a process could be created with FMD and KCOEM to identify potential facilities quickly and efficiently in preparation for extreme weather events.

Similarly, cities were contacted through two separate facilities surveys and asked to provide existing or planned extreme weather center and disaster shelter locations. With the assistance of PHSKC, some community partners were contacted directly and asked to provide information on available space.

A. 5 Based on the facilities identified in subsection 4 of this section A, provide a list and a map of King County facilities currently used for extreme weather centers or disaster sheltering or that could be rapidly repurposed to serve as extreme weather centers and disaster shelters with an emphasis on those facilities that can be available to residents of unincorporated King County or residents of cities that do not have access to similar facilities in their own cities. That information should also include staffing costs based upon the staffing model developed in subsection 8 of this section A.

The result of this work is captured as both a list of potential sites and a map of those sites most likely to serve as an extreme weather center or disaster shelter. This culminated in the identification of 48 potential city and community partner sites as well as 135 King County sites.[63, 64, 65, 66] The King County sites were then further refined to the 15 sites that most likely could be used currently or with a minimal amount of conversion.

The staffing costs included in this report follow the guidance of the ARC. The ARC is the national leader on sheltering and has been identified as having federal instrumentality, with the purpose of maintaining a system of domestic disaster relief. A staffing plan is included below in Figure 3 for extreme weather centers and disaster shelters.

[62] Shelter Facilities Survey [Appendix N]
[63] City and Community Partners Facilities Map [Appendix H]
[64] City and Community Partners Facilities List [Appendix I]
[65] King County Government Facilities Map [Appendix F]
[66] King County Government Facilities List [Appendix G]

Figure 3 - Shelter Staffing Plan

Shelter Staffing - Two Shifts

			Manager MC/SH/SV	Supervisor MC/SH/SV	Worker MC/SH/SA	Staff per Shift	Staff Total	Clients per Staff per Shift
50 Clients	Minimum Staff	Day	1	-	1	2	4	25
		Night	-	1	1	2		25
	Ideal Staff	Day	1	-	2	3	6	17
		Night	-	1	2	3		17
100 Clients	Minimum Staff	Day	1	-	1	2	4	50
		Night	-	1	1	2		50
	Ideal Staff	Day	1	-	3	4	7	25
		Night	-	1	2	3		33
200 Clients	Minimum Staff	Day	1	1	2	4	8	50
		Night	-	1	3	4		50
	Ideal Staff	Day	1	1	7	9	15	22
		Night	-	1	5	6		33
500 Clients	Minimum Staff	Day	1	2	7	10	20	50
		Night	-	2	8	10		50
	Ideal Staff	Day	1	3	18	22	39	23
		Night	-	3	14	17		29

Staffing costs were established based on the shelter staffing plan and have been reviewed by the Office of Performance, Strategy, and Budget. Using 2021 data, KCOEM calculated hourly amounts with three rates: average volunteer value of $31.80 per hour, King County median hourly wage of $40.48 per hour, and the Washington State Employment Security Department median hourly wage of $42.76 per hour.[67, 68, 69] Additionally, custodial costs were calculated using internal King County data from the Bob G Shelter at $32.29 per hour and the low and high end of the custodial hiring range $24.68 per hour and $35.25 per hour, respectively. Security work was also calculated using an existing King County contract at $44.23 per hour.

The estimated total staffing cost to run one extreme weather center serving 0-50 clients for a 12-hour shift falls between $1,392 and $1,689. These figures are intended to cover staffing costs alone for two shelter workers, security, and custodial services. Additional costs would likely be incurred as more services, such as food and supplies are added. Inflation would also impact actual costs.

[67] Independent Sector [Link]
[68] King County [Link]
[69] Employment Security Department [Link]

Figure 4 - Staffing Costs

Category	Hourly Wage
Shelter worker - volunteer	$31.80
Shelter worker - King County employee	$40.48
Shelter worker - Employment Security Department	$42.76
Custodial	$24.68-35.25
Security	$44.23
Total cost for a 50-client extreme weather center	*$1,392 - $1,689 per 12-hour shift*

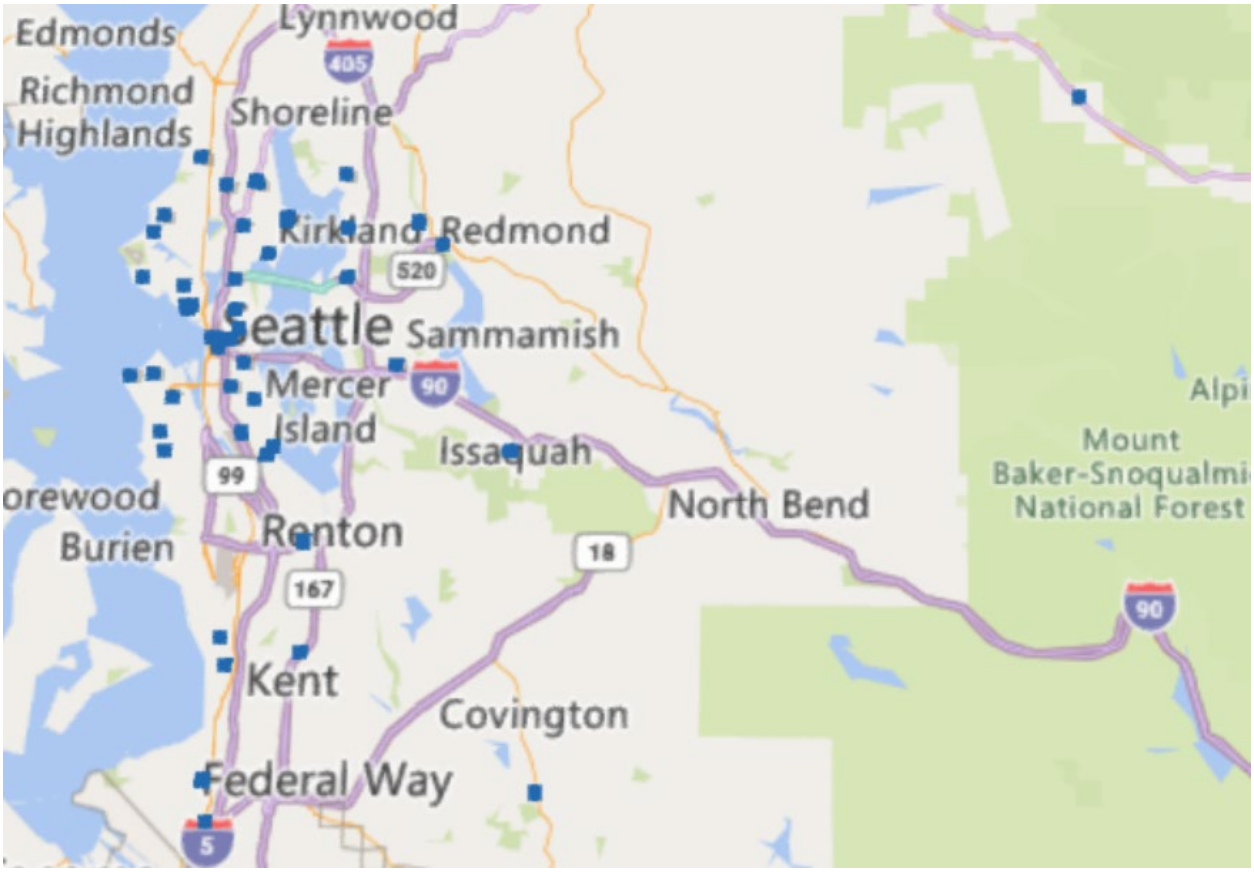
The above staffing model and associated costs are estimates and are scalable to reflect the size of event, the number of locations that may need to be opened, and the number of King County residents seeking respite from extreme weather or a disaster.[70]

A. 6. Based on the facilities identified in subsection 4 of this section A, provide a list and a map of King County facilities not currently used for extreme weather centers and disaster shelters, but that could be used for such purposes with upgrades. For a range of scenarios, the executive shall also identify the costs of such upgrades and staffing costs.

KCOEM partnered with FMD to identify facilities that had the potential to be used or repurposed into a shelter or extreme weather center. FMD was able to provide available spaces currently owned by King County. The properties were then further refined to those spaces that could most easily be repurposed based on the expertise of real estate professionals inside FMD. The entire list of potential spaces was included alongside a map of spaces that could be more easily converted.[71, 72] FMD noted that the inventory of buildings is in flux and changes regularly. Figure 5 shows a map of King County with the facilities also included in the two appendices.

[70] Staffing Cost Estimate [Appendix J]
[71] King County Government Facilities List [Appendix G]
[72] King County Government Facilities Map [Appendix F]

Figure 5 - King County Facility Map



Subject matter experts at FMD determined that the cost to upgrade facilities with heating, ventilation, and air conditioning varies widely given the size of the building and existing infrastructure. Upgrades and/or installation can range from hundreds of thousands to millions of dollars. Prospective spaces that would be used for such purposes would be evaluated for upgrades or installations.

Figure 6, below, demonstrates the range of projects completed by King County, illustrates the difference in cost between locations and specific needs of the facilities.

Figure 6 - HVAC Upgrade Costs[73]

Example	Description of site	Description of work	Cost
District Court Issaquah detention HVAC	Limited area of district court.	Partial HVAC replacement for a library sized facility.	$166,640

[73] HVAC Upgrade Costs [Appendix O]

Example	Description of site	Description of work	Cost
Clise Mansion HVAC	28 room, mansion/wedding venue size facility.	HVAC systems for a mansion sized location	$260,000
Federal Way Red Lion	Hotel with around 28,000 square feet of space.	Instillation of existing HVAC units with new power hookups and toilet exhaust fans.	$384,000
Shoreline District Court HVAC and fire alarm replacement	Similar size to a library branch.	Replaced district court HVAC and fire alarm system. (Note that the cost reflects both update)	$1,342,700
Auto parts warehouse conversion in Seattle Sodo neighborhood.	250+ bed Emergency COVID 19 Isolation and Quarantine site including support infrastructure warehouses and offices on the leased SODO site.	Complete replacement of HVAC, abatement, install of washing stations, bathrooms, showers. (Note that the cost reflects multiple updates)	$13 million

A. 7. Based on the facilities identified in subsection 4 of this section A, provide a list and a map of non-county owned facilities that could be used for extreme weather centers and disaster shelters. The executive shall also provide an engagement plan for those entities and the costs for any necessary upgrades.

Non-King County government (KCG) facilities were identified by working with city emergency managers and by talking to some community entities, such as Bellevue and Highline College. A list and map of city and partner facility information that have been or could be used as extreme weather centers and/or disaster shelters has been included.[74, 75, 76, 77]

Non-KCG facilities were engaged through the local city emergency managers as well as some direct outreach. City emergency managers were engaged during multiple meetings, and received multiple emails, surveys, and direct one-on-one communication. The outreach around engagement mirrored the ask for community outreach and included providing information at the KCOEM Summer Hazards and Winter Hazards Seminars, discussion at multiple Zone 1 and Zone 3 meetings, discussion during KCOEM Regional Coordination weekly calls that routinely include multiple city partners, EMAC meetings, and regularly during monthly Mass Care Working Group meetings.[78, 79]

[74] City and Community Partners Facility List [Appendix I]
[75] City and Community Partner Facility Map [Appendix H]
[76] King County Government Facilities Map [Appendix F]
[77] King County government Facilities List [Appendix G]
[78] Zone 1 cities include: Beaux Arts, Bellevue, Bothell, Carnation, Clyde Hill, Duvall, Hunts Pint, Issaquah, Kenmore, Kirkland, Mercer Island, Newcastle, North Bend, Redmond, Snoqualmie, and Woodinville.
[79] Zone 3 includes: Algona, Auburn, Black Diamond, Burien, Covington, Des Moines, Enumclaw, Federal Way, Kent, Maple Valley, Milton, Normandy Park, Pacific, Renton, SeaTac, Tukwila, and Vashon.

City emergency managers were provided surveys directly tied to facilities and were encouraged through multiple avenues to distribute those surveys to the community. KCOEM and PHSKC reached out directly to area colleges and were provided facility and contact information for Bellevue and Highline Colleges.

A. 8. Develop a staffing model based on best practices to operate extreme weather centers and disaster shelters. The staffing model should be inclusive of training requirements for county staff when operating emergency weather centers and disaster shelters. The staffing model should also include the cost to provide staffing for a range of scenarios.

The ARC is the national leader on sheltering and has been identified as having federal instrumentality, with the purpose of maintaining a system of domestic disaster relief. A staffing plan is included above.

It is an accepted practice that disaster shelters and extreme weather centers should be staffed by a minimum of two individuals at all times regardless of number of clients. This is to ensure the safety of staff and clients. Scaling extreme weather center and disaster shelter operations will require more staffing as well as additional support staff. Generally, disaster shelters or extreme weather centers with a client population of under 50 can be run utilizing a minimal staffing model of two staff members during the day and two during the night. Ideal staffing for a shelter of this size is six individuals, which allows for better client interaction. Utilizing additional staff may be necessary based on client needs. As the number of clients grows, staffing would have to increase as well. An estimate of cost associated with staffing an extreme weather facility is documented in Figure 4, above, with the stagging cost falling between $1,392 and $1,689 per 12-hour shift. This number was based off of a 0–50-person extreme weather facility operating for 12 hours.

A. 8. Include information, if available from the state department of social and 152 health services on long-term care assistance facilities or family care homes in King 153 County that do not have air conditioning.

Neither DSHS nor WHCA provided information on the percentage of long-term care facilities with air conditioning. According to the U.S. Census, the Seattle metro area now has air conditioning in around 53 percent of homes.[80] Additionally, Section 388-78A-2990 of the Washington Administrative Code creates temperature limits for assisted living facilities. The regulation requires buildings where the dry bulb temperature exceeds 85 degrees Fahrenheit two percent of the year to have air conditioning that is capable of maintaining a temperature of 75 degrees Fahrenheit.[81]

A. 9. Consider with King County Regional Homelessness Authority and city 155 partners the use of vouchers for accommodations or day use activities for the most 156 vulnerable residents.

[80] Seattle Times Seattle is no Long the Least Air-Conditioned Major Metro Area [Link]
[81] WAC 388-78A-2990 [Link]

Hotel vouchers are a proven method that can assist vulnerable populations in getting to safe accommodations.[82] This model has been used to assist with homelessness as well as those who have experienced natural disasters.[83] The main consideration for vouchers is the number of clients served. As client census increases congregate sheltering becomes vastly more cost efficient. Vouchers can provide needed alternatives during disease outbreaks or for clients that need different levels of assistance.

A. 10. Maintain a website with updated real-time information during extreme weather events and disasters, which includes a listing of all known available extreme weather centers, disaster shelters and emergency shelters, where to go to get help and public health tips for staying safe during extreme weather events and disasters, and how to volunteer or donate resources to organizations providing support during extreme weather events and disasters.

KCOEM operates an Emergency Blog that provides up-to-date relevant information during extreme weather events and disasters.[84] The Emergency Blog has been utilized in the past to provide information to the public, amplify partner information, and ensure that best practices on how to stay safe during extreme weather events are shared. Additionally, WA 2-1-1 utilizes the Emergency Blog to provide information on shelter and extreme weather centers inside of King County.

The website is: www.kcemergency.com

VI. Appendices

- Appendix A: King County Motion 16183
- Appendix B: Sheltering Operations plan
- Appendix C: DLS Unincorporated Area Survey
- Appendix D: DCHS Senior Centers
- Appendix E: KCOEM Survey Results
- Appendix F: King County Government Facilities Map
- Appendix G: King County Government Facilities List
- Appendix H: City and Community Partners Facilities Map
- Appendix I: City and Community Partners Facilities List
- Appendix J: Staffing Cost Estimate
- Appendix K: KC Extreme Cold, Snow, and Ice Playbook
- Appendix L: KC Extreme Heat Incident Playbook
- Appendix M: KC Smoke Incident Playbook
- Appendix N: Shelter Facilities Survey
- Appendix O: HVAC Upgrade Costs

[82] Terner Center for Housing Innovation: Using Emergency Housing Vouchers to Address Homelessness [Link]
[83] American Journal of Nursing: Advocation for Janetta [Link]
[84] King County Emergency Blog [Link]

K4C Resilience Hubs Survey

Purpose:

We're reaching out to K4C Partners to Understand jurisdiction needs, progress, and partnership opportunities related to resilience hubs and community resilience networks.

What is a resilience hub?

A resilience hub is a trusted, community-serving facility that supports people before, during, and after climate-related events like extreme heat, wildfire smoke, storm events, or power outages. Hubs operate year-round and during emergencies to provide services such as clean air, cooling or heating, power access, and essential resources tailored to local needs.

START: **Which option best describes where your jurisdiction is with regards to resilience hubs?** *Choose one.*

A. We have one or more designated resilience hub sites

B. We are currently working on or planning to establish one or more resilience hubs

C. We are exploring the idea

D. We have not explored the idea

E. We explored the idea and are not moving forward

If A - We have one or more designated resilience hub sites

A1. Please briefly describe the location(s), use(s), and lead entity(ies) for your hub(s). *(Open-ended)*

A2. Have you had the need to use your resilience hub during an event?

- Yes
    - *If yes:* **We would like to set up an interview to learn more about the operation of your hub and lessons learned to date. Please list any others who should be part of that interview. We will contact you to schedule that interview.**
- No

A3. Is your jurisdiction interested in expanding its community resilience network to include more hubs?

- Yes *(if selected, goes to A4)*
- Considering *(if selected, goes to A4)*

- No
    - *If no:* **please tell us why your jurisdiction is not interested.** *(Open-ended, short response)*

If yes or considering:
A4. Have you identified specific locations or facilities that could serve as resilience hubs?

- Yes
    - *If yes:* **Please briefly describe the site(s), including whether they are public, private, or community-owned.** *(Open-ended)*
- Not yet

A9. Have you identified potential community partners, facility owners, or institutions?

- Yes
    - *If yes:* **Please list any known or potential partners and their roles (if applicable**). *(Open-ended)*
- Not yet

A10. How do you currently fund or plan to fund improvements and operations for resilience hubs? *(Select all that apply: general fund, state or federal grants, local measures, philanthropy, public-private partnerships, not yet identified, other:____)*

A11. What other information or resources would help your work on resilience hubs? *(Select all that apply: dedicated funding, case studies, toolkits, staffing models, policy support, community engagement tools, evaluation and metrics frameworks, peer learning or networking opportunities, other:____)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If B - We are currently working on or planning to establish one or more resilience hubs

B1. Have you identified specific locations or facilities that could serve as resilience hubs?

- Yes

    - **If yes: Please describe the site(s), including whether they are public, private, or community-owned.** *(Open-ended)*
- Not yet

B2. Have you identified potential community partners, facility owners, or institutions?

- Yes
- Not yet

If yes: **Please list any known or potential partners and their roles (if applicable).** *(Open-ended)*

B4. How do you currently fund or plan to fund improvements and operations for resilience hubs? *(Select all that apply: general fund, state or federal grants, local measures, philanthropy, public-private partnerships, not yet identified, other:____)*

B5. What are some of the concerns or challenges you have or anticipate having when establishing resilience hubs? *(Select all that apply: staffing, coordination, funding, lack of examples, community trust, unclear responsibilities, political support, other: _____)*

B6. What other information or resources would help your work on resilience hubs? *(Select all that apply: dedicated funding, case studies, toolkits, staffing models, policy support, community engagement tools, evaluation and metrics frameworks, peer learning or networking opportunities, other:____)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If C - We are currently working on or planning to establish one or more resilience hubs

C1. Have you identified specific locations or facilities that could serve as resilience hubs?

- Yes
    - **If yes: Please describe the site(s), including whether they are public, private, or community-owned.** *(Open-ended)*
- No

C2. Have you identified potential community partners, facility owners, or institutions?

- Yes
    - **If yes: Please list any known or potential partners and their roles (if applicable).** *(Open-ended)*
- No

C3. What is motivating your jurisdiction to pursue resilience hubs? *(Select all that apply: community needs, climate impacts, equity goals, state funding, federal funding, local funding, peer city examples, disaster preparedness gaps, community interest, other:___)*

C4. Based on what you know at this time, how likely is it that your jurisdiction will move forward with creating a hub. *(Check-box scale response: likely, somewhat likely, not likely)*

C5. What are some of the concerns or challenges you have or anticipate having when establishing resilience hubs? *(Select all that apply: staffing, coordination, funding, lack of examples, community trust, unclear responsibilities, political support, other)*

C6. How do you anticipate funding any needed improvements and operations for resilience hubs? *(Select all that apply: general fund, state or federal grants, local measures, philanthropy, public-private partnerships, not yet identified, other:____)*

C7. What other information or resources would help your work on resilience hubs? *(Select all that apply: dedicated funding, case studies, toolkits, staffing models, policy support, community engagement tools, evaluation and metrics frameworks, peer learning or networking opportunities, other:____)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If D - We have not explored the idea.

D1. Is your jurisdiction interested in exploring resilience hubs in the future?

- Yes *(if selected, goes to D2)*
- No *(if selected, goes to D3)*
- Not sure *(if selected, goes to D3)*

If "Yes"

D2. What is motivating your jurisdiction's interest in resilience hubs? *(Select all that apply: community needs, climate impacts, equity goals, state funding, federal funding, local funding, peer city examples, disaster preparedness gaps, community interest, other:___)*

If "No" or "Not sure"

D3. What are the main reasons your jurisdiction has <u>not</u> explored resilience hubs? *(Select all that apply: Lack of political support, Limited access to information, Insufficient resources or funding, Staff or capacity constraints, other)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.

If E - We explored the idea and are not moving forward

E1. What factors have led you to <u>not</u> move forward with resilience hubs? *(Select all that apply: Lack of political support, Lack of funding, Lack of partners, Staff or capacity constraints, Availability of facilities, Other)*

E2. Of the list above, which were the biggest barriers? *(Check 3)*

Lack of political support, Lack of funding, Lack of partners, Staff or capacity constraints, Availability of facilities, Other)

E3. What might encourage or enable your jurisdiction to revisit resilience hubs in the future? *(Select all that apply: technical support, dedicated funding, peer learning, templates/toolkits, staffing, local political support, other)*

END: **Thank you for completing the K4C Resilience Hubs Survey!**

Your responses will help us better understand local needs, identify partnership opportunities, and support jurisdictions across the region in advancing community resilience. We appreciate your time and insights.

If you have any questions or would like to learn more, please contact us at .

We'll be in touch with next steps and opportunities to continue this important work together.