KEY ACTION AREA:

Upgrade the built environment

The need

Many commercial and residential buildings in the South-Central Puget Sound remain ill-equipped to protect people from the impacts of heat and wildfire smoke. The Seattle metro has historically had one of the lowest air conditioning rates in the country—only 44 percent of homes had air conditioning in 2019, growing to 63 percent by 2023.[94] Many homes, multifamily buildings, schools, and community facilities still lack high-efficiency filtration needed to keep indoor air safe during smoke events. Retrofitting and designing buildings to stay cool, filter smoke, and ensure accessible safe indoor spaces will reduce health risks, reduce business continuity disruptions, prevent displacement, and build resilience for frontline communities.

Action plans for high-priority strategies

The following action plans outline steps to implement selected high-priority strategies and identify key partners and existing efforts to build on.

Skyline of Seattle, Washington, at dusk

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This is an excerpt from the C2ES Regional Action Roadmap for Extreme Heat and Wildfire Smoke, informed from conversations from the South-Central Puget Sound Climate Resilient Communities Accelerator.

Find the full Roadmap here: *https://www.c2es.org/document/puget-sound-action-roadmap*.

HIGH-PRIORITY STRATEGY: Use public health data to shape building codes and planning policies to reduce heat and smoke exposure and ensure safe indoor environments during extreme events.

Public health data is essential for shaping building codes and planning policies that keep people safe during extreme heat and smoke events, ensuring homes, workplaces, and community spaces provide healthy indoor environments. This action plan uses that data to guide regional standards, model codes, and educational campaigns—strengthening policies, incentivizing upgrades, and improving monitoring so that buildings across the South-Central Puget Sound can better protect community health during future climate-driven emergencies.

STEPS:

1. **Form a working group** to develop public health data-informed planning policies to systematically improve the built environment—including homes, private assets, and public facilities—for heat and smoke resilience.
2. **Establish a data-driven foundation for decision making** using existing tools, such as *Americares Climate Resilient Health Toolkits*,[95] the Bree Collaborative's *Heat and Wildfire Smoke Toolkit for Healthcare Professionals*,[96] UW Center for Health and the Global Environment's *Climate and Health Risk Tool*,[97] and Health Impact Assessments, to inform policy and planning decisions for the built environment.
3. **Develop regional guidance, standards and model codes** for integrating public health data and heat/smoke solutions, such as air filtration and passive cooling, into local building codes and capital improvement plans.
    - Provide resources, examples, and incentives for private businesses to make improvements to privately-run assets, including critical infrastructure (e.g., hospitals) and public spaces (e.g., malls), that meet regional standards.
4. **Advocate for improved and climate-integrated state-level policies**, for example:
    - integrating heat and smoke priorities into Washington State Health Care Authority's Medicaid Transportation Project via the *Health-Related Social Needs (HRSN) services*[98] focus area
    - integrating wildfire smoke ventilation requirements into the Wildland Urban Interface (WUI) Building Code
    - establishing an upper temperature threshold for indoor environments to determine when cooling measures are required (see *Washington State Building Code Section 1203*[99]).
5. **Implement educational campaigns** to support compliance on new standards, geared toward the appropriate users (e.g., renters, landlords, municipalities, private businesses), as well as clear avenues to report and address inadequate building conditions related to heat and smoke.
6. **Develop a monitoring strategy** for tracking implementation and evaluating effectiveness of policies and building improvements, using public health and environmental monitoring data to refine strategies over time.

ESSENTIAL LEADERS AND PARTNERS:

- **Nonprofit:** public health organizations, academic experts
- **Public:** public health departments at the local and state levels, local and county planning departments, code enforcement, planning boards, the State Health Insurance Commission
- **Private:** care providers, hospitals, emergency medical services, health insurance, data analytics providers, building

EXAMPLES AND EXISTING EFFORTS:

- *Oregon's Right to Cooling Requirements for Renters (SB1536)*[100]
- *Vancouver B.C.'s Guideline on Single Zone Cooling in Dwelling Units (BCBC-2024)*[101]
- *King County Heat-related illness data dashboards*[102]
- *Washington Tracking Network (WTN) Heat Stress Data*[103]
- City of Denver's *Clean Air and Cool Home Funding*[104] for nonprofits and community-based organizations
- Colorado Health Institute and Kaiser Permanente's *Advancing Climate Resilience for Community Health*[105]

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HIGH-PRIORITY STRATEGY: Streamline and scale regional building upgrades to prepare homes and workplaces for extreme heat and wildfire smoke.

Upgrading the region's building stock is essential for protecting residents and workers from worsening heat and smoke, especially in homes and workplaces that currently lack adequate cooling or filtration. This action plan streamlines and scales these upgrades by developing regional guidance and incentives, simplifying contractor engagement, and expanding training pathways—making it easier and more affordable for building owners to implement heat- and smoke-ready improvements.

STEPS:

1. **Conduct a regional building stock capability assessment** to identify the heat and smoke-readiness of existing commercial and residential buildings.
2. **Develop voluntary regional guidance, standards, and incentives** for built environment upgrades, including model policies, plug-and-play designs, and demonstration projects; identify and recognize strong partners that meet these standards, by, for example:
    - launching a public education campaign highlighting building readiness, including implementing a placard system for publicly owned buildings showing performance capabilities for cooling and smoke filtration.
3. **Streamline contractor engagement** to advance heat and smoke weatherization of residential and commercial properties by:
    - defining criteria for heat- and smoke-qualified contractors to simplify procurement, design, and implementation of weatherization upgrades
    - supporting local government staff and planning boards to engage and educate developers and architects early and often during the permitting process
    - forming a cross-sector working group to identify ways of reducing administrative burdens, diversify the contractor base, and support smaller companies.
4. **Partner with or expand the** *Built Green*[106] **program**, administered by Master Builders Association of King and Snohomish Counties, to develop accreditations specific to extreme heat and wildfire smoke resilience and consider expanding the program to include Kitsap, Pierce, and Thurston counties.
5. **Compile existing state and local job training programs with significant green job components for the built environment** to identify opportunities to support or expand existing efforts, including by:
    - coordinating with Washington state's job realignment efforts to ensure consistent approaches at state and local levels
    - convening a working group of job training program leaders and designers to better understand barriers and lessons learned for green jobs, trades, and upskilling programs.
6. **Explore and pilot incentives** for homeowners, renters, building owners, and businesses who invest in heat and smoke weatherization, such as deferred or reduced taxes, reduced permitting fees, expedited review processes, zoning allowances, community benefit agreements, utility rebates, low-interest loans, insurance premium reductions, and on-bill financing.

ESSENTIAL LEADERS AND PARTNERS:

- **Nonprofit:** master builders' associations, training and skills centers, non-profits focused on sustainable building practices
- **Public:** municipal planners, business improvement areas, regional ports, Washington State Department of Commerce, Washington State Building Code Council
- **Private:** electric utilities, home insurance providers, property managers, construction companies, architects

EXAMPLES AND EXISTING EFFORTS:

- *ASHRAE Guideline 44-2024, Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events*[107]
- Emerald Cities Collaborative's *HVAC/R Training and Career Preparation Academy*[108]
- Urban Land Institute's *Developing Urban Resilience Project Showcase Library*[109]

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