

Heat Mapping Campaign (Heat Watch)

Clark County Public Health Advisory Council

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Overview



Background on how heat impacts health



The built environment's impact on health and wellbeing



Heat Watch campaign & results



Moving toward action

Objectives

- Increase awareness and understanding of heat trends in Clark County
- Summarize health outcomes from heat, and how the built environment impacts heat exposure
- Describe heat mapping project (Heat Watch) and results
- Identify opportunities to use this data for decision making



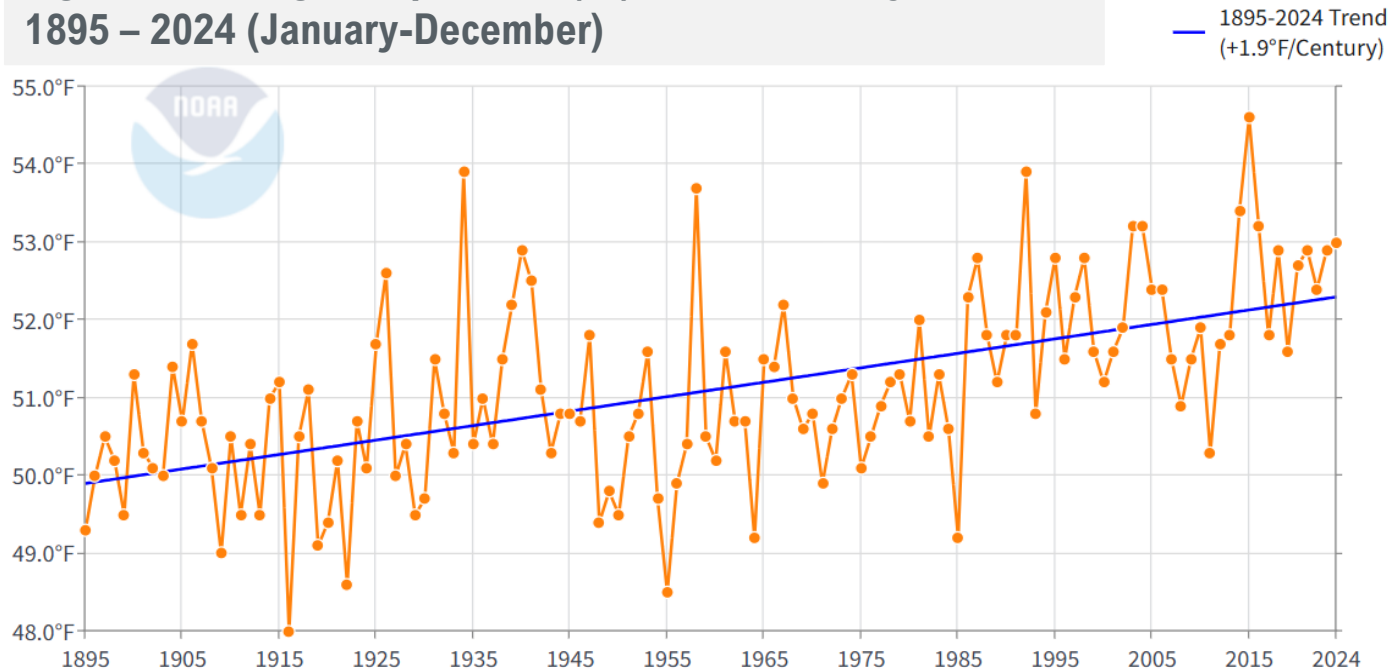
Heat and health



Heat in Clark County

From 1895-2024, there was almost a **2°F increase in average temperature** per century in Clark County.

**Figure 1. Average temperature (°F) in Clark County, WA
1895 – 2024 (January-December)**



Data Source: National Oceanic and Atmospheric Administration (NOAA), National Centers for Environmental Information. 2025.
County Time Series Data, retrieved from www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series/



(DOH, 2025;
Chang et al., 2023)

How can heat impact health?

Heat-related illness, like heat cramps, heat exhaustion, and heat stroke

Impacts to mental health

Pregnancy complications

Heart and breathing problems

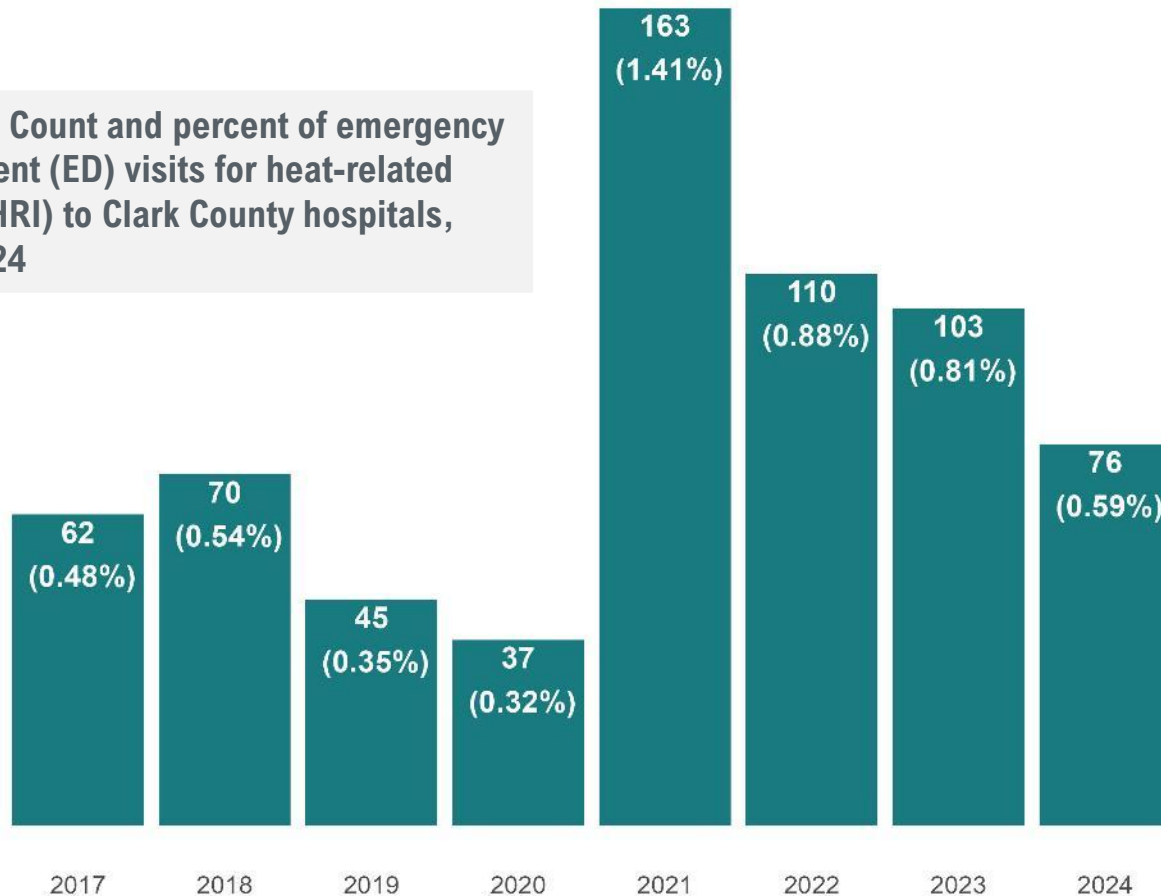


(CDC, 2024;
Hayden et al., 2023)

Health impact in Clark County

ED visits for heat-related illnesses to Clark County hospitals were the **highest in 2021**, the year of record-setting extreme heat event (Heat Dome).

Figure 2. Count and percent of emergency department (ED) visits for heat-related illness (HRI) to Clark County hospitals, 2017-2024



Data Source: Washington State Department of Health, Rapid Health Information NetwOrk (RHINO)
Data last pulled February 2025 | Note: all data is preliminary, and represents emergency department visits (not patients)

Who is most impacted by heat?

Older adults

People living unsheltered or
unhoused

Pregnant people

People living in urban heat
islands

Infants and children

People without access to air
conditioning

People with existing health
conditions or who take certain
medications

People who exercise outdoors

Outdoor workers



(EPA, 2025)

Built environment



Heat exposure and the built environment

The **built environment** includes the physical makeup of where we live, learn, work, and play. It involves roads, sidewalks, open spaces, and transportation options, as well as homes, schools, and businesses. The built environment can influence overall community health and individual behaviors, such as physical activity and healthy eating.



(CDC, 2024)

Urban heat islands

- Developed areas tend to be warmer
- Buildings, roads, and other paved surfaces without shade hold on to more heat than green spaces



(NIHHIS, 2025;
Smart Growth America, 2024)

Heat Watch Mapping Campaign



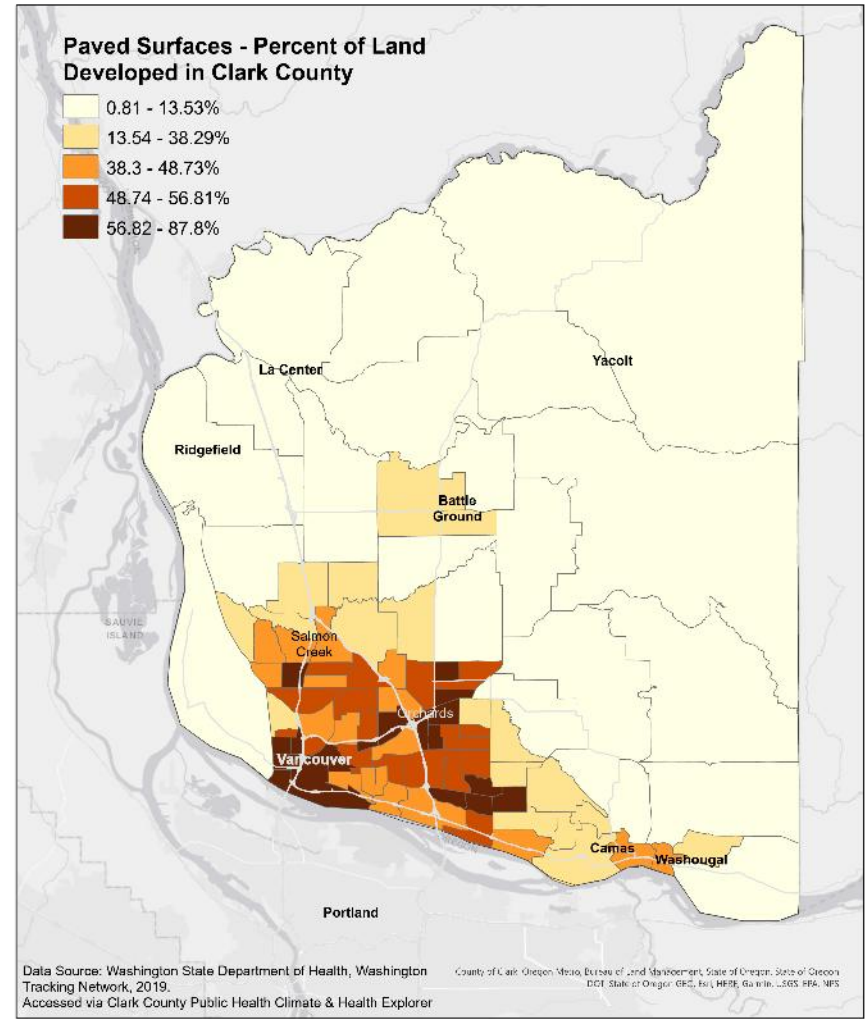
Data opportunity

Existing data:

- Paved surfaces
- Recorded temperature

Opportunity through Heat Watch:

- Localized data on **which neighborhoods in Clark County are most exposed to heat**



Clark County Heat Watch

One-day participatory event on July 12, 2024, to collect data on temperatures throughout Clark County

- Volunteers collected temperature sensor readings on pre-planned routes
- Supported by 50+ volunteers, county and community partners, technical assistance and analysis from CAPA Strategies
- Temperatures collected morning, afternoon, and evening



Pictured above: Heat Watch temperature sensor

Acknowledgements

- Heat Watch volunteers
- Community and county partners
- CAPA Strategies
- Clark County Public Health staff

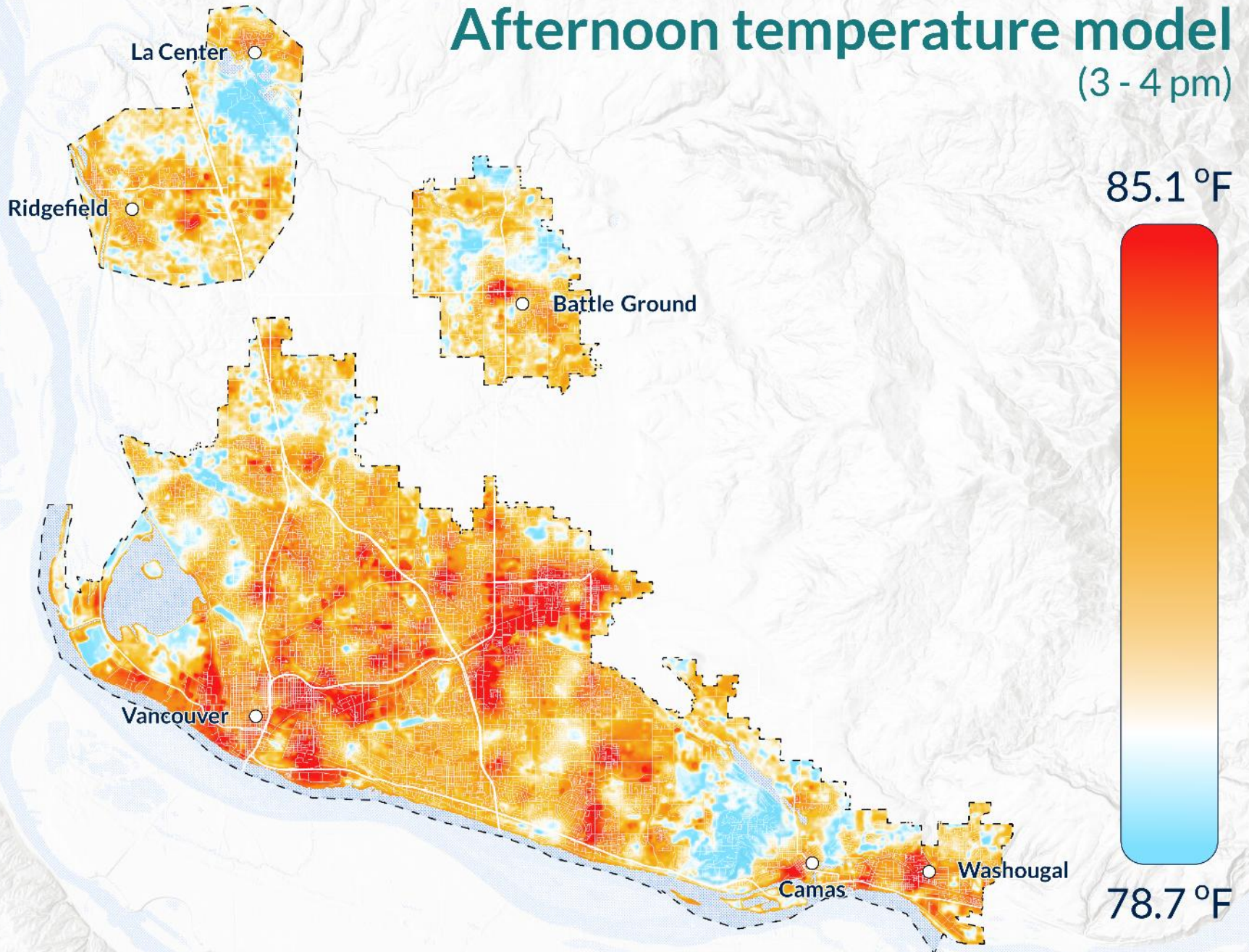
Clark County Community Planning
Clark County Council
Community Emergency Response
Team (CERT)
Clark Regional Emergency Services
Agency (CRESA)
Clark County Sheriff's Office Search
and Rescue (CCSO SAR)
Clark-Cowlitz Fire Rescue
City of Vancouver
Fourth Plain Forward
Medical Reserve Corps (MRC)
PeaceHealth



Pictured above: Heat Watch volunteer and Public Health staff on campaign day



Afternoon temperature model (3 - 4 pm)



Data Source: CAPA Strategies/NIHHIS. Heat Watch Clark County, WA, 2024.

Key takeaways



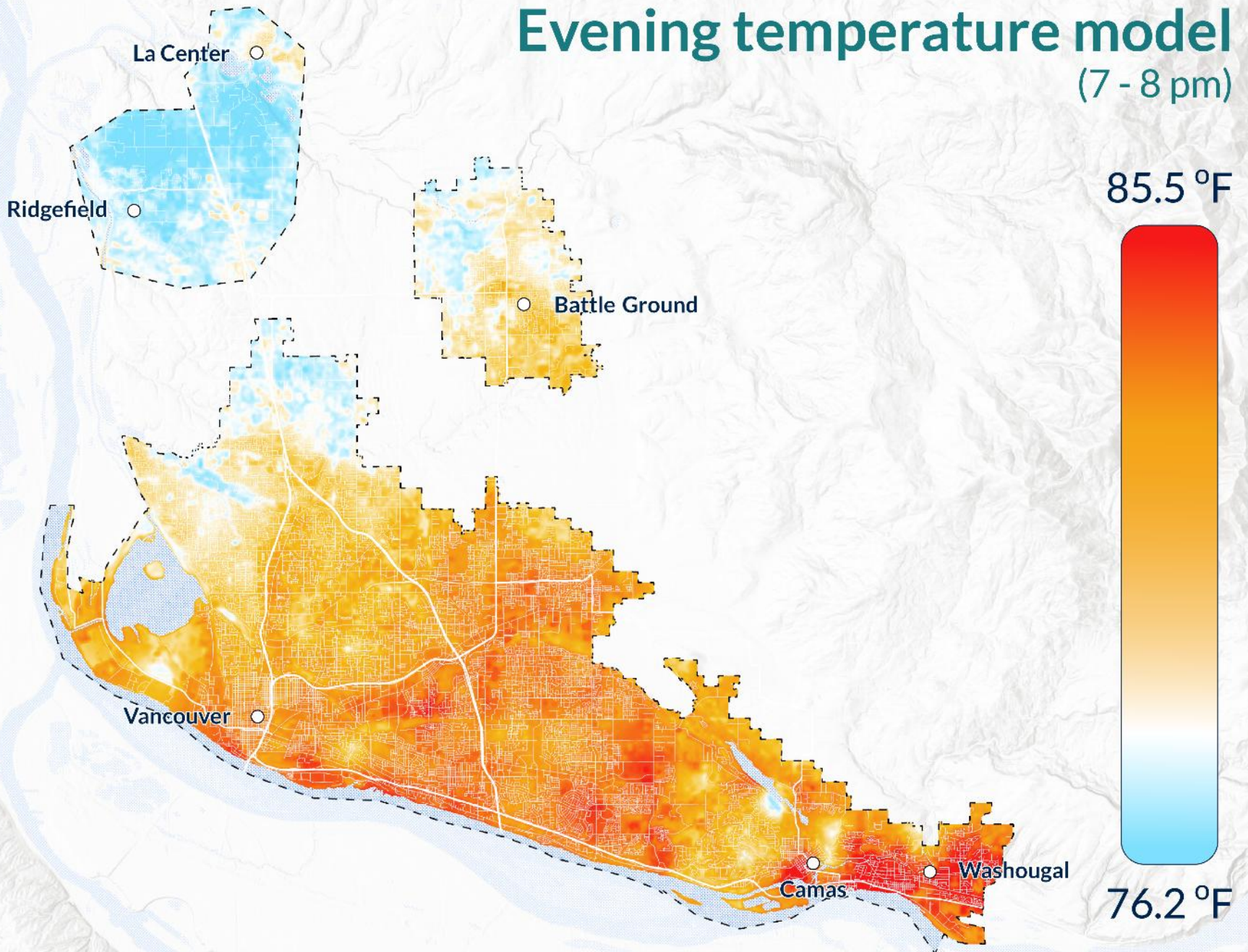
Hotter areas:

- Most of the Vancouver area – downtown, Orchards, Fourth Plain, and Fruit Valley
- Washougal
- Downtown Camas
- Downtown Battle Ground

Cooler areas:

- West and central Camas
- Places with more green and natural spaces, like Burnt Bridge Creek Trail in Vancouver

Evening temperature model (7 - 8 pm)



Data Source: CAPA Strategies/NIHHIS. Heat Watch Clark County, WA, 2024.

Key takeaways



Hotter areas:

- Central and east Vancouver
- Washougal

Cooler areas:

- Ridgefield
- La Center
- Northwestern Vancouver
- Northwest Battle Ground

Pictured: Clark County Heat Watch webpage (above), Heat Watch Summary Report (middle), and interactive Heat Watch map (left)



Moving toward action



Climate justice and health equity

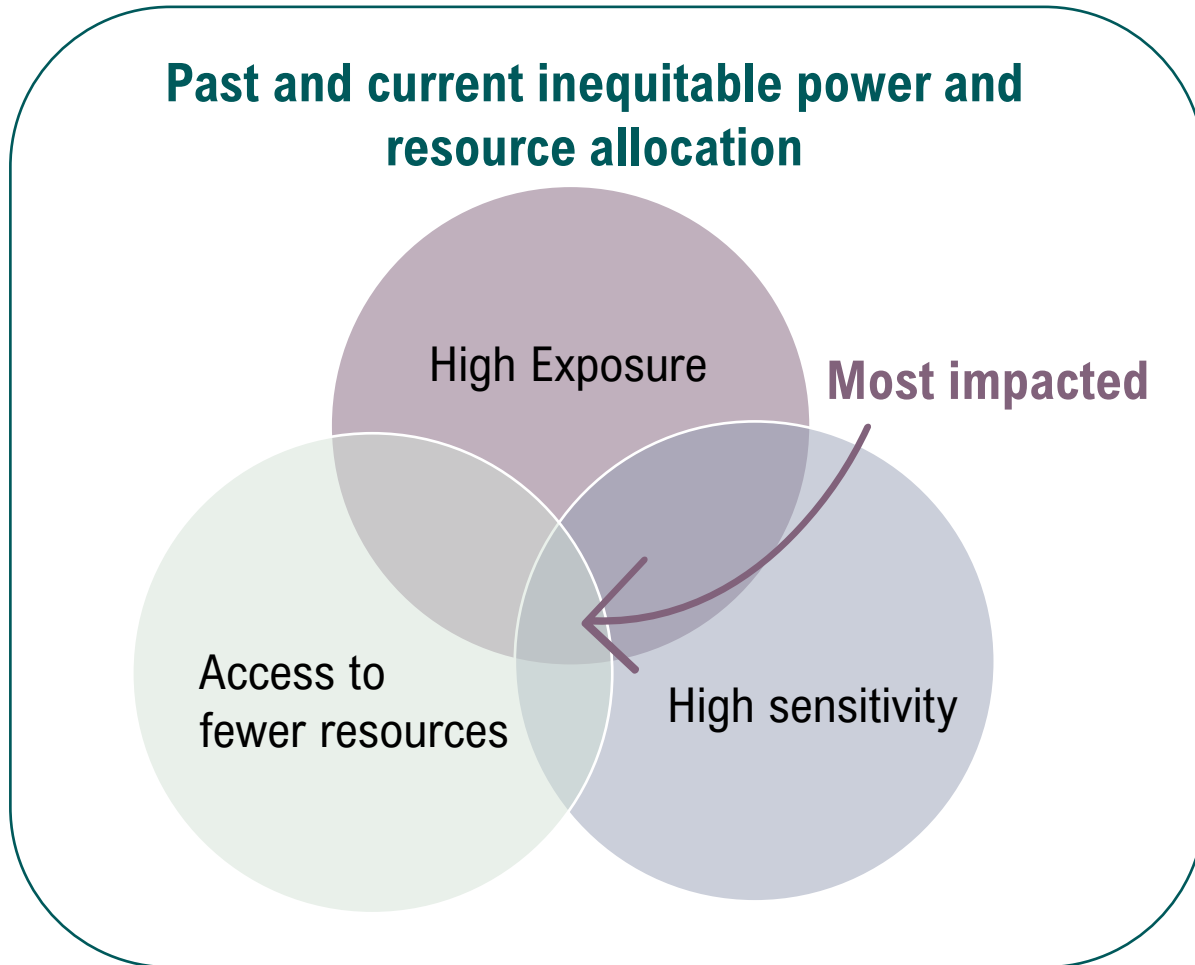


Figure adapted from CDC Building Resilience
Against Climate Effects Framework, 2025

(DOH, 2025; EPA, 2025;
Smart Growth America, 2024)



Considerations for Board of Health

Utilize heat mapping data as part of decision-making

- ✓ Consider policies that reduce heat islands and promote community resilience.
- ✓ Prioritize resource allocation for neighborhoods with increased vulnerability to heat.
- ✓ Prioritize increasing tree canopy and shade structures.
- ✓ Address extreme heat in buildings and urban spaces.
- ✓ Support expansion of energy assistance programs for cooling.



CCPH Next steps

- Continue presenting heat mapping data with partners
- Monitoring and reporting on heat and health
- Sustaining and building community partnerships
- Support capacity building for health interventions



Take care before and during hot weather

Heat can impact your health and safety.

Prepare for hot weather

- Sign up for public alerts.
- Check your local weather and HeatRisk (wpc.ncep.noaa.gov/heatrisk/) during warm weather months.
- Make a plan for hot weather and getting somewhere cool.
- Learn the symptoms of heat illness, like heat stroke or heat exhaustion.

Protect yourself and others when it is hot outside

- Stay inside, in an air-conditioned location, as much as possible.
- If you need to be outside when it is hot, try to stay in the shade as much as possible, take breaks, and limit outdoor activity to morning and evening.
- Stay hydrated, and drink plenty of water. Consider limiting beverages with caffeine, alcohol, or lots of sugar.
- Check on your family, friends, and neighbors during heat waves.



Learn more at clark.wa.gov/public-health/hot-weather-safety



Learn more about heat in Clark County

Heat can impact everyone, but location matters.

Some neighborhoods in Clark County are warmer than others.

New maps are available to help communities prepare for heat!
Learn more about the Clark County Heat Watch project:



clark.wa.gov/public-health/heat-watch

Contact Clark County
Public Health at
CCPHClimateAction@clark.wa.gov

Created 4.25

For other formats, contact the Clark
County ADA Office: 564.397.2322 / 711
or 800.833.6388 / ADA@clark.wa.gov

Pictured above: Heat outreach postcard, available in Chuukese, English, Russian, Simplified Chinese, Spanish, Ukrainian, and Vietnamese languages



Questions?

Thank you

Learn more: clark.wa.gov/public-health/heat-watch

Contact us: CCPHClimateAction@clark.wa.gov

If you would like to use these data or maps for a report or presentation, we recommend taking a screenshot and then copying to your files. If you have questions or would like another visual, please contact the Climate Action program at CCPHClimateAction@clark.wa.gov.

For other formats, contact the Clark County ADA Office 564.397.2282 / 711 or 800.833.6388 / ADA@clark.wa.gov



References

Centers for Disease Control and Prevention (CDC). (2024). *About heat and your health*. Retrieved from <https://www.cdc.gov/extreme-heat/about/index.html>

Centers for Disease Control and Prevention (CDC). (2024). *Built Environment Assessment Tool and Manual: Transforming communities to make healthy living easier*.

Retrieved from https://www.cdc.gov/physical-activity/php/built-environment-assessment/index.html#cdc_data_surveillance_section_1-what-the-built-environment-includes

Chang, M., L. Erikson, K. Araújo, E.N. Asinas, S. Chisholm Hatfield, L.G. Crozier, E. Fleishman, C.S. Greene, E.E. Grossman, C. Luce, J. Paudel, K. Rajagopalan, E. Rasmussen, C. Raymond, J.J. Reyes, and V. Shandas. (2023). Ch. 27. Northwest. In: *Fifth National Climate Assessment*. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA. <https://doi.org/10.7930/NCA5.2023.CH27>

Hayden, M.H., P.J. Schramm, C.B. Beard, J.E. Bell, A.S. Bernstein, A. Bieniek-Tobasco, N. Cooley, M. Diuk-Wasser, Michael K. Dorsey, K.L. Ebi, K.C. Ernst, M.E. Gorris, P.D. Howe, A.S. Khan, C. Lefthand-Begay, J. Maldonado, S. Saha, F. Shafiei, A. Vaidyanathan, and O.V. Wilhelmi. (2023). Ch. 15. Human health. In: *Fifth National Climate Assessment*. Crimmins, A.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, B.C. Stewart, and T.K. Maycock, Eds. U.S. Global Change Research Program, Washington, DC, USA. <https://doi.org/10.7930/NCA5.2023.CH15>



References

National Integrated Heat Health Information System (NIHHIS). (2025). *About Urban Heat Islands*. Retrieved from <https://www.heat.gov/pages/urban-heat-islands>

Smart Growth America. (2024). *How to beat the heat: A built environment approach*. Retrieved from <https://www.smartgrowthamerica.org/knowledge-hub/news/how-to-beat-the-heat-a-built-environment-approach/>

United States Environmental Protection Agency (EPA). (2025). *Climate change and human health: Who's most at risk?* Retrieved from <https://www.epa.gov/climateimpacts/climate-change-and-human-health-whos-most-risk>

Vogel, J., J. Hess, Z. Kearl, K. Naismith, K. Bumbaco, B.G. Henning, R. Cunningham, N. Bond. (2023). *In the Hot Seat: Saving Lives from Extreme Heat in Washington State*. Report prepared by the University of Washington's Climate Impacts Group, UW's Center for Health and the Global Environment, the Washington State Department of Health, the Office of the Washington State Climatologist, and Gonzaga University's Center for Climate, Society & the Environment.

Washington State Department of Health (DOH). (2025). *Climate justice*. Retrieved from <https://doh.wa.gov/community-and-environment/climate-and-health/climate-justice>

Washington State Department of Health (DOH). (2025). *Extreme heat and climate change*. Retrieved from <https://doh.wa.gov/community-and-environment/climate-and-health/extreme-heat>

