



Public Health Recommended Heat Measures

Public Health – Seattle & King County (PHSKC) offers the following considerations and recommendations to support regional coordination and response actions across King County during an extreme heat event.

NOTE ON THRESHOLDS AND RECOMMENDATIONS

Heat affects everyone differently. Some individuals may be more susceptible to heat-related illness due to factors such as their environment, level of activity, occupation, age, or underlying health conditions – including the use of some medications that may reduce the body’s ability to thermoregulate. The following recommendations are intended for harm reduction purposes and are established to be protective of those most vulnerable to the health impacts of extreme heat. The following recommendations should not be construed in any way that expands or limits the administrative rules, regulations, or authorities of Public Health – Seattle & King County, or the requirements of Washington Administrative Code (WAC) 296-62-095 “Outdoor heat exposure” and the associated regulations under Revised Code of Washington (RCW) 49.17.010, 49.17.040, and 49.17.060.

The following guidance is offered to aid King County departments and municipalities in their decision making processes. However, action thresholds pertaining to extreme heat response are not static and additional factors must be taken into account, including:

- Individual sensitivities and levels of exposure, and
- Cooling capacity of the built environment (e.g., urban heat island effect and residential access to air conditioning)

HEATRISK VALUES AND NWS WATCHES, WARNINGS, & ADVISORIES

The [NOAA National Weather Service \(NWS\)](#) is the lead agency for the issuance of heat-related Watch, Warning, and/or Advisory (WWA) products issued prior to the onset of an extreme heat event and is the official source of weather forecasts and related products – including determination of localized HeatRisk Values.

It is the responsibility of each jurisdiction, agency, and division to monitor the NWS forecast and take preparation action based on NWS’ Heat Advisory, Excessive Heat Watch, and Excessive Heat Warning products (WWAs) that may be released prior to the onset of an extreme heat event. These products from NWS are intended to provide jurisdictions, agencies, and divisions with lead time to prepare for when a heat event is likely to occur that poses an imminent hazard to human health.

- **Heat Advisory:** a hazard is occurring, imminent, or very likely (>80% confidence). Indicates hot conditions that are not expected to reach warning thresholds during the forecast period but can cause impacts to life, infrastructure, commerce, travel, and emergency services. Typically indicates a widespread HeatRisk near the orange/red threshold.

- **Excessive Heat Watch:** Issued when conditions reaching Excessive Heat Warning levels are possible (>50% confidence) in the coming days – up to 7 days in advance of the occurrence of a heat event.
- **Excessive Heat Warning:** a hazard is occurring, imminent, or very likely (>80%+ confidence). Issued for very hot conditions that are likely to result in life-threatening heat-related illness or acute injury for those unable to escape the heat and significant impacts to healthcare services, infrastructure, commerce, travel, and emergency services. Typically an event with widespread red or magenta HeatRisk will trigger an Excessive Heat Warning.

When any of the above WWA products are released by NWS, agencies and jurisdictions should use the [HeatRisk forecast](#) and this guidance to inform the appropriate level of action to take associated with an upcoming event. Public Health’s health and safety recommendations during an extreme heat event are aligned to the NWS’s [HeatRisk Values](#).

The NWS HeatRisk forecast provides a quick view of the risk posed by heat over the upcoming seven days. HeatRisk is portrayed in a numeric (0-4) and color (green/yellow/orange/red/magenta) scale which is similar in approach to the Air Quality Index (AQI). Like the AQI, HeatRisk provides one value each day that indicates the approximate level of heat risk concern for any location, along with identifying groups who are most at risk. HeatRisk values are supplemental to official NWS heat watch/warning/advisory program and is meant to provide continuously available heat risk guidance for public safety and emergency management agencies and heat sensitive populations who need to take actions at levels that may be below current NWS heat product levels.

The NWS Experimental HeatRisk values and forecast are tied to CDC heat and health thresholds, are location specific, and takes into account factors including:

- daily maximum temperatures,
- daily minimum temperatures,
- heat event duration,
- local climatology, and
- time of year.

OVERVIEW OF NWS HEATRISK VALUES:

Numerical Value	Meaning	Who/What is at Risk?	How Common is this Heat in King County
0	<ul style="list-style-type: none"> • Level of heat poses little to no risk 	<ul style="list-style-type: none"> • No elevated risk 	Very common
1	<ul style="list-style-type: none"> • Heat of this type is tolerated by most; however, there is a low risk for sensitive groups to experience health effects 	<ul style="list-style-type: none"> • Primarily those who are extremely sensitive to heat 	Very common

2	<ul style="list-style-type: none"> • Moderate risk for members of heat sensitive groups to experience health effects • Some risk for the general population who are exposed to the sun and are active • For those without air conditioning, living spaces can become uncomfortable during the day, but should cool below dangerous levels at night 	<ul style="list-style-type: none"> • Primarily heat sensitive groups, especially those without effective cooling or hydration or those not acclimated to that level of heat (i.e. visitors) • Some transportation and utilities sectors 	Fairly common for most locations
3	<ul style="list-style-type: none"> • High risk for much of the population who are 1) exposed to the sun and active, or 2) are in a heat sensitive group, or 3) visiting a warmer climate and exposed to sun/heat • Dangerous to anyone without proper hydration or adequate cooling • Poor air quality is possible • Power interruptions may occur as electrical demand increases for cooling 	<ul style="list-style-type: none"> • Much of the population, especially those who are heat sensitive and anyone without effective cooling or hydration • Those exposed to the heat/sun at outdoor venues • Most transportation and utilities sectors 	Uncommon for most locations
4	<ul style="list-style-type: none"> • Very high risk for entire population • Very dangerous to anyone without proper hydration or adequate cooling. • This is a multi-day extreme heat event. A prolonged period of heat is dangerous to anyone not prepared. • Poor air quality is likely • Power outages are increasingly likely as electrical demands for cooling may reach critical levels 	<ul style="list-style-type: none"> • Entire population is at risk • For heat sensitive groups, especially people without effective cooling, this level of heat can be deadly • Most transportation and utilities sectors 	Rare in most locations

PUBLIC HEALTH RECOMMENDED HEAT MEASURES:

The following table provides recommended actions to take when HeatRisk levels reach orange, red, and magenta categories. Recommendations and considerations build on lower HeatRisk Value recommendations.

NWS HeatRisk Values	Public Health Recommendations
<p style="text-align: center;">2 Moderate</p>	<p style="text-align: center;">INITIATE EARLY WARNING, PUBLIC MESSAGING, AND RESPONSE ACTIVITIES</p> <ul style="list-style-type: none"> • Recommend sharing information about available cooling locations where general population can go to access air conditioning or cooling features such as water recreation facilities or other public places • Recommend dissemination of key public health heat safety messaging and risk communications to at-risk populations, including those experiencing homelessness, older adults, children, and outdoor workers • Consider limiting strenuous outdoor activities during the hottest period of the day • Consider cancelation and/or rescheduling of outdoor children’s activities, day-camps, athletic practice, and games taking place during the hottest period of the day or consider moving them indoors where temperatures are cooler • Consider distribution of water and other cooling supplies for at-risk communities and populations • Consider activation of daytime cooling centers for unsheltered individuals • Consider undertaking preparation activities required to meet recommendations of higher HeatRisk levels, if forecast indicates increase in risk and temperatures • Monitor NWS HeatRisk forecast and alerts until forecast conditions become more favorable (e.g., HeatRisk Value of 1 - yellow - or lower)
<p style="text-align: center;">3 Major</p>	<p style="text-align: center;">RECOMMEND ACTIVATION OF COOLING CENTERS & REDUCTION IN OUTDOOR ACTIVITIES</p> <ul style="list-style-type: none"> • Continue outreach efforts to reach at-risk populations with risk communications, cooling supplies, and water resources • Recommend activation of daytime cooling centers for unsheltered individuals • Recommend activation of daytime cooling centers for general population • Recommend temporary suspension of strenuous outdoor activities during hottest times of the day • Recommend cancelation and/or rescheduling of outdoor children’s activities, day-camps, athletic practice, and games • Recommend conducting wellness checks on elders and people living with disabilities to ensure access to air conditioning or cooling centers • Consider expanding hours of operation for cooling centers for unsheltered individuals to accommodate overnight use • Consider capabilities of schools to maintain cooler indoor air temperatures if school is in session; Public Health will recommend closure if indoor temperatures cannot be maintained reasonably free of excessive heat (WAC § 246-366-080)
<p style="text-align: center;">4 Extreme</p>	<p style="text-align: center;">RECOMMEND CANCELATION OF OUTDOOR EVENTS AND ACTIVITIES</p> <ul style="list-style-type: none"> • Recommend expanding hours of operation for cooling centers to accommodate overnight use • Recommend cancelation of outdoor activities and events during hottest times of the day

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