Public Health – Seattle & King County

Extreme Weather Response Annex

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Public Health
Seattle & King County

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Introduction

Purpose

The Public Health—Seattle & King County (Public Health) *Extreme Weather Response Annex* (Annex) guides Public Health activities taken immediately before, during, and after a severe weather event to protect community health and limit disparities. Extreme weather events are by definition rare for a given region; this Annex prioritizes extreme heat, wildfire smoke, and severe winter weather events.

Some extreme weather events require limited response activities from Public Health; other situations will require large-scale response efforts that involve multiple divisions within Public Health and the cooperation and coordination of Washington State Department of Health (DOH), tribal nations, neighboring jurisdictions, other King County departments, additional Emergency Support Function #8 – Public Health, Medical, and Mortuary Services (ESF #8) partners, and community partners.

This Annex integrates with other Public Health response plans and activities at the local, state, and federal levels as described in *Emergency Support Function #8 – Health, Medical, and Mortuary Services*.

Scope

This Annex describes how Public Health response activities and resources are organized, prioritized, and implemented to effectively and equitably address impacts to community health during extreme weather events. This Annex can be referenced by Public Health leadership and staff to facilitate effective incident management and response for an extreme weather event.

The scope of this Annex falls within the responsibilities and Local Health Officer authorities outlined in *Emergency Support Function #8 – Health, Medical and Mortuary Services* (ESF #8) within the *King County Comprehensive Emergency Management Plan*. The Annex also informs the Public Health roles identified in the *City of Seattle Comprehensive Emergency Management Plan* and King County's *Regional Disaster Coordination Framework*.

Planning constraints

This Annex was developed under nonemergency conditions and includes Public Health's planned procedures for responding to extreme weather events. Although this Annex attempts to reduce the unknowns and anticipate needs for response to an extreme weather event, it is impossible to plan for every contingency and every aspect of a response. Public Health plans are not intended to be prescriptive, but rather guide decision-making, resource allocation, and centering equity in response actions. This Annex should thus be considered a starting point for conducting incident management and implementing response activities. Public Health leadership and staff who utilize this Annex should maintain flexibility for action and innovation to best meet community needs during an extreme weather event.

Planning assumptions

Public Health's ability to coordinate its response to an extreme weather event is dependent upon the scope and severity of the event, impacted communities, resource needs and availability, which includes Public Health's capacity to provide response services. Responses are led by city and county emergency management offices, who coordinate with Public Health and many other Emergency Support Function lead agencies. While Public Health serves in a liaison role in those response structures, it also coordinates its internal response activities separately from this structure. With these factors in mind, an extreme weather event response must account for the assumptions below.

Response Coordination: King County Office of Emergency Management (King County OEM) leads the response coordination for severe weather events impacting King County, with thresholds for activation and activities defined in its severe weather event playbooks. ESF #8 agencies, including Public Health, play a support role in this structure. Seattle Office of Emergency Management leads response coordination for extreme weather events impacting its jurisdiction. Public Health serves in a support capacity within Seattle's emergency operations center structure. Roles and responsibilities are outlined below.

Transportation impacts: Certain types of extreme weather events, such as severe winter weather and flooding, can result in dangerous road conditions, significantly hindering people's ability to travel.

- Transportation limitations may impact continuity and delivery of routine Public Health services.
    - Public Health staff whose roles cannot be done from home will need to have extreme caution with their transit and commute, and travel times should be expected to be much longer than in normal conditions.
    - Continuity of Operations plans may need to be activated by Public Health divisions and programs to ensure continued provision of essential services.
- Transportation hazards may increase impact to healthcare system.
    - Healthcare system may experience increased volume of patients due to vehicle accidents due to severe winter weather.
    - During the winter, staff may be unable to reach care locations, impacting delivery of routine healthcare services.
- Transportation impacts can limit communities' access to critical services.
    - Certain populations may need transportation support to critical medical appointments, and may or may not know how to request this support.

Adequate sheltering and resource access: Access to adequate shelter and cooling or warming resources (such as air conditioning, adequate air filtration, and warming resources) is a critical to protecting community health and improving health outcomes during extreme weather events. This plan assumes:

- Emergency sheltering is implemented through King County's *Emergency Support Function #6 – Mass Care, Emergency Assistance, Temporary Housing, and Human Services*. The Department of Community and Human Services leads the coordination of ESF #6 activities for King County.
- The King County Regional Homelessness Authority leads emergency sheltering throughout Seattle and South King County for individuals experiencing homelessness or living unsheltered.
- At the local level, sheltering and resource allocation operations are led by local municipalities and jurisdictions.
- The built environment is not adequate to manage extreme weather events. Examples include:
    - Homes are not built for passive cooling and air conditioning in living spaces is not prevalent, with 53% of homes having an air conditioning resources (21% central air and ~30% relying on room air conditioning).
    - Risk of heat exposure can occur indoors as well as direct exposure outdoors, with heat mapping demonstrating the way the built environment amplifies heat risk.
    - Poor indoor air quality filtration systems and unsealed living spaces may not protect individuals from wildfire smoke exposure indoors.

Information sharing: Significant communication and information sharing will be needed across the county as extreme weather events generally impact the entire region.

- Response partners and King County communities will expect Public Health to communicate clear, consistent, and timely public information and risk messaging about the potential health impacts of the weather event and ways people can protect their health.

Equity: Equity should be included in incident response operations and centered in decision making.

- The *Equity Response Annex* (ERA) provides guidance and recommendations for how to meaningfully partner with communities during a response. The ERA includes decision making tools that can support response leadership with centering equity and communities along every step of the response.
- Individuals with access and functional needs (including, but not limited to, people who are homeless, homebound, economically or transportation disadvantaged, hearing or visually impaired, or who have limited English proficiency) are often disproportionately affected by emergencies and may require additional assistance in an emergency.
- Extreme weather events disproportionately impact frontline communities, those which are already directly affected by climate change and inequity in society at higher rates than people who have more power in society. Response activities intended to address health disparities and negative health outcomes should be prioritized to reduce barriers to necessary resources and protections.

Incident Overview

Hazard Definitions

Extreme weather can occur in many ways, such as a hurricane, tornado, or drought. Their common factor is that they are rare to the given region. In King County, the priority extreme weather events described in this Annex include extreme heat, wildfire smoke, and severe winter weather events.

Extreme Heat Events

Extreme heat is defined as summertime temperatures that are much hotter than average for a particular climate. Heat is one of the leading weather-related killers in the United States, resulting in hundreds of fatalities each year. Heat tends to be most impactful and deadly in the form of a heat wave or any period of anomalous and uncomfortably hot weather that lasts several days to weeks at a time, especially when there is no break in the heat at night.

Wildfire Smoke Events

Wildfires are a natural hazard in the western United States which typically occur during the warmer, drier summer months. Climate change has increased the frequency and severity of these events. While wildfire impacts may be limited to the areas burnt, they generate a significant amount of wildfire smoke which can impact air quality for hundreds of miles and create air quality conditions that are considered unhealthy or even hazardous. As climate change worsens, more wildfires may occur across the western United States and potentially bring more wildfire smoke to the Puget Sound region.

Wildfire smoke is a complex mixture of carbon dioxide (CO_2), carbon monoxide (CO), water vapor, particulate matter, hydrocarbons, nitrogen oxides, trace minerals, and other organic chemicals. There is

growing evidence that environmental pollutants and toxic chemicals from human activities now make up a portion of wildfire smoke components as wildfires increasingly occur in the wildland-urban-interface. To date, the primary pollutant of concern for public health from wildfire smoke is particulate matter.

Severe Winter Weather

Much of King County's climate is regulated by the Pacific Ocean, resulting in relatively stable temperatures throughout the year. However, occasional cold air from the interior pushes into the Puget Sound region and causes severe winter weather, which includes winter storms that bring snow, ice, and extremely cold temperatures. A winter storm occurs when precipitation forms as sleet or snow, or when rain turns to ice. Severe winter weather can cause windstorms, flooding, and landslides. They can also directly impact critical infrastructure, causing prolonged power outages and transportation impacts.

Floods can greatly impact human health during and after inundation. In the Pacific Northwest, flooding is a seasonal hazard resulting from heavy rainfall from winter storms or associated with snowmelt runoff from the Cascades. It can affect both urban and rural areas across King County. Floods have the potential to rapidly generate large volumes of debris, which can place strain on King County's solid waste management system and cause additional cascading impacts that present risks to human health. Winter storms that occur during extremely high tides can exacerbate seasonal flooding along the coastal regions and Duwamish River valley.

Recent History

King County is experiencing and will continue to see more extreme weather events due to the changing climate.

Extreme Heat Events

Extreme heat events are predicted to happen more often and last longer due to the changing climate. Temperatures in Washington have risen almost 2 degrees Fahrenheit since the beginning of the 20th century; since 1986, all but 5 years have been above the long-term (1895-2020) average. Warming is projected to continue through the end of this century and will lead to increases in heat wave intensities.

King County heat records were shattered in June 2021 during an unprecedented heat wave throughout the Pacific Northwest. The deadliest weather-related event in Washington history, King County recorded 34 deaths between June 26 and July 10, 2021, attributed to excessive heat-induced complications. Between 2022 and 2024, thirteen heat events with moderate or higher risk levels resulting in National Weather Service alerts (watches, warnings, or advisories) occurred between May and August of each year.

Wildfire Smoke Events

The largest wildfire season in Washington state history occurred in 2015, with more than 1 million acres burned between June and September, resulting in sustained periods of poor air quality across much of King County. 2018 had a total of 24 days of poor air quality due to wildfire smoke, including nine days recorded as either *unhealthy for sensitive groups* or *unhealthy for everyone*. Since 2017, King County has seen a consistent increase in bad air days affecting the community. Wildfires in September 2020 resulted in the worst recorded air quality in King County since air quality monitoring efforts began in the 1980s at AQI 238, reaching hazardous levels in some parts of the county.

The COVID-19 pandemic influenced the risk profile of wildfire smoke: those with COVID-19 and those who have recovered may be more suspectable to adverse health outcomes associated with wildfire smoke exposure. A 2021 Harvard study found that $PM_{2.5}$ (particulate matter 2.5 micrometers and smaller) pollution from wildfire smoke during 2020 led to a statistically significant increase in excess COVID-19 cases and deaths across the western US. Local research estimates that as many as 92 excessive deaths during the 2020 wildfire smoke event across Washington can be attributed to $PM_{2.5}$ exposure. The pandemic also resulted in an increased awareness and adoption of indoor air filtration technologies that have the added benefit of being effective at mitigating public health risks during a wildfire smoke event.

In 2022, the Bolt Creek Fire along the Snohomish-King County border created a prolonged period of rapidly fluctuating wildfire smoke impacts in the region, making forecasting and effective preparation more difficult as the AQI levels shifted daily and even hourly.

Severe Winter Weather

While Seattle and the larger metro area of the King County lowlands receives less snowfall than other parts of King County, it means it does not take much to disrupt the community and impact community health. In portions of King County which include the foothills of the Cascade Mountains, snow can be seen as early as November and linger throughout the winter months. Severe storms can shut down transportation for days, cause long duration power outages, and disrupt access to emergency services. Some severe winter weather events in recent history include:

- In February 2019, Seattle saw one of its biggest snowstorms with 17.5 inches of snow falling over a four-day period. East King County was the hardest hit, with communities such as North Bend receiving over 32 inches of snow in one week. Public Health coordinated the King County Critical Medical Appointment Transportation Task Force to address critical medical appointment transportation needs across the county.
- From December 2021 through early January 2022, King County saw a sustained period of snowfall affecting the entire county. A second storm in February 2022 brought 8.9 inches in a single day. Public Health delivered air purifiers to key temporary severe weather shelters serving people experiencing homelessness to mitigate the spread of COVID-19 and worked with transit operators to connect those in need of transportation to their critical medical appointments.

Snow is not the only criteria defining severe winter weather; abnormally cold temperatures and extended periods of freezing rain can severely impact communities. A winter storm in January 2024 brought with it extreme cold temperatures and resulted in a state-wide disaster declaration for several Western Washington counties, including King County. As climate change increases average temperatures across the globe, these extreme precipitation events are on the rise, with atmospheric rivers carrying an increasing amount of rainfall to the western United States. Climate change studies indicate that as the atmosphere begins to warm, annual snowfall will drop but more precipitation may occur, making forecasting severe winter weather more difficult. King County sees extended periods of rainfall annually, but the increase in their intensity during the winter can have additional impacts on the population.

In late December 2022, the South Park neighborhood in Seattle experienced severe flooding due to a confluence of severe winter storms, atmospheric pressure, and an annual King Tide event. The initial response and recovery effort lasted through January 2023 and included a coordinated effort across Seattle city departments and Public Health. After action reports and direct community feedback led to

significant updates to Public Health's flood response process, particularly around post-flooding health guidance and related materials now available in key translations.

Health and Medical Impacts

Extreme weather events can impact an entire region simultaneously, putting communities and populations across the area at risk. Each hazard can impact human health in a variety of ways. Public Health dashboards are available to track climate change impacts on health in the county.

Extreme Heat Events

Heat-related illnesses, like heat exhaustion or heat stroke, happen when the body is not able to properly cool itself. While the body normally cools itself by sweating, during extreme heat, this might not be enough. In these cases, a person's body temperature rises faster than it can cool itself down. This can cause damage to the brain and other vital organs. Extreme heat events may also increase risk of cardiovascular events and related severe health emergencies.

Emergency medical services (EMS) calls, hospitalizations, and mortality increase for all ages with increasing heat intensity. Drowning events may also increase during extreme heat.

Wildfire Smoke Events

Wildfire smoke is made up of a complex mixture of gases and fine particles produced when vegetation and other organic and synthetic materials burn, with particulate matter being the primary pollutant of concern. These microscopic particles can irritate mucus membranes of the body, penetrate deep into the lungs, and be absorbed into the cardiovascular system of the body, causing a range of health problems, from burning eyes and a runny nose to aggravating chronic heart conditions, respiratory illness, and diseases. Exposure to particle matter associated with wildfire smoke has even been linked to an increased risk of premature mortality, with the greatest impact to health being observed in the days after exposure. Preliminary studies on wildfire smoke show a lag between poor air quality and a healthcare visit (4-6 days on average), which makes tracking health impacts on the community difficult and suggests messaging during an event should focus on not only identifying ongoing symptoms, but the need to limit exposure to wildfire smoke, even if symptoms are not present at the time of the event.

Severe Winter Weather

Severe winter weather has serious impacts on regional transportation and can lead to a cascade of health and medical impacts. Severe winter weather also puts those experiencing homelessness at high risk of exposure, potentially leading to hypothermia and frostbite. Overall, winter storms increase risk of injury (due to car accidents, falls due to snow or ice, etc.), hypothermia, frostbite, carbon monoxide poisoning, and heart attacks from overexertion.

Floodwaters can be contaminated by raw sewage, household hazardous chemicals, or industrial pollutants that can significantly increase the health risks resulting from contact with floodwaters.

Risk Factors

Extreme weather events can impact an entire region simultaneously, putting communities and populations across the area at risk. However, some communities and demographics are more at risk than others from wildfire smoke, extreme heat, and severe winter weather events. These risk factors include:

Age: Older adults (65 years and over) and children and teens (18 years and younger) are more sensitive to temperature and wildfire smoke impacts. For wildfire smoke, older adults have a high prevalence of pre-existing lung and heart disease and decline of physiologic processes, such as defense mechanisms. Children's lungs are still developing and there is a greater likelihood of increased exposure to wildfire smoke resulting from more time spent outdoors, engagement in more vigorous activity, and inhalation of more air per pound of body weight compared to adults. For heat and cold, older adults and children are at increased risk because the ability to regulate body temperature decreases as people age and is more difficult for infants and young children.

Health Conditions, Pregnancy Status, and Medication Usage: Environmental exposures, such as wildfire smoke, can trigger a range of severe respiratory responses among people with underlying circulatory and/or respiratory diseases. Certain chronic health conditions can also increase an individual's likelihood of developing heat-related illness and can be worsened in cold weather.

- Certain medications can make it harder to stay hydrated and regulate body temperature during extreme heat events, including medications for allergies and colds, thyroid disorders, depression, heart/blood pressure, and weight loss.
- Pregnant people can experience pregnancy-related physiologic changes (e.g., increased breathing rates) which may increase vulnerability to environmental exposures, such as wildfire smoke. In addition, during critical development periods, the fetus may experience increased vulnerability to these exposures. Pregnancy also alters the body's heat regulation, making it more likely for pregnant people to get heat-related illness and become dehydrated during periods of extreme heat.
- Individuals reliant on uninterrupted access to critical medical appointments (dialysis, methadone treatment, chemotherapy) may have their normal modes of transportation impeded or canceled due to extreme winter weather. Missing these appointments may have significant impacts on their health and increase the burden on the EMS system if their health deteriorates.

Behaviors and Occupation: Outdoor workers face extended periods of time exposed to high concentrations of wildfire smoke and high temperatures, which can lead to increased risks of experiencing a range of adverse health effects. Athletes who exercise outdoors breathe in more harmful air pollution during wildfire smoke events due to their increased respiratory rates and are more likely to become dehydrated and get heat-related illnesses during extreme heat events. Changing levels of exposure during extreme weather events can reduce and prevent negative health outcomes for these populations.

Housing Status: Individuals experiencing homelessness are at high risk of exposure to severe weather and resulting health impacts. Additionally, populations without reliable or effective heating, cooling, and air filtration resources, such as those with lower socioeconomic status, are more susceptible to carbon monoxide poisoning during power outages occurring during severe winter weather, heat-related illnesses during extreme heat events, and harmful impacts from wildfire smoke.

Inequities and Barriers: Extreme weather events do not impact community health in a vacuum. These extreme events amplify disparities, inequities, biases, and racism in social, political, and economic structures.

Structural racism is a significant root cause of health disparities during all public health incidents, manifesting through laws and policies that create barriers to equitable interventions. In addition to individual acts of discrimination, structural racism invades systems of power, informing decision-making and furthering health inequity. The existence of structural racism within our health and social institutions results in the systematic exclusion of people of color, Indigenous communities, people with disabilities, and incarcerated individuals when decisions are made during a public health emergency, resulting in significant health disparities among these groups. When understanding the impacts racism has on the health of communities, it is vital to use an intersectional lens – racism often does not occur in a vacuum, but intersects with other forms of discrimination, including discrimination based on ability or socioeconomic status.

These health disparities are particularly stark with regard to extreme weather because the most effective and immediate intervention is to reduce exposure to the hazards through appropriate shelter. As such, people experiencing homelessness or living unsheltered are at highest risk of harmful impacts from severe weather, compounding with significant inequities the population already experiences due to biased policies, systems, and resource limitations.

Preventative Measures

Deaths from extreme weather events are preventable. This requires effective and early action to communicate risk and protective actions, share health guidance to support response partners, and provide tailored assistance to at-risk populations.

Identifying the Risk: Identifying risk entails individuals understanding their own personal risk to a weather hazard, as well as receiving and understanding information about a particular weather event. Information about personal risk, including the risk factors discussed in the above section, should be communicated to communities as part of preparedness efforts that occur before an extreme weather event. When a winter storm, heat wave, or wildfire smoke event is forecasted or already occurring, public information and outreach is critical to advise people on locations of shelters and other steps to protect health. Messaging should be culturally appropriate, in translation and appropriate interpretation, and provided through trusted channels and messengers.

Limit Exposure: The most effective way to mitigate impacts from severe weather is sheltering from the conditions, with adequate cooling, heating, and air filtration resources depending on the event. Emergency shelters, cleaner air sites, and cooling centers may be activated during severe weather to serve community members. For those living or spending time outdoors during periods of severe weather, additional steps, such as dressing warmly during severe winter weather and using N95 masks during wildfire smoke events, can offer protection if people are unable to move indoors.

Understand Signs and Symptoms: Recognizing symptoms of smoke exposure, heat exhaustion or heat stroke, and hypothermia are key to preventing serious health impacts. People experiencing such symptoms or who know someone experiencing symptoms should seek medical care immediately. Specific signs and symptoms are outlined in Public Health's risk communications resources and are shared with the public and key partners prior to and during extreme weather events.

Authorities and Responsibilities

Authorities

State and local public officials have overlapping authorities regarding protecting public health and safety. The Governor of Washington, the State Board of Health, the Washington State Secretary of Health, the King County Executive, the King County Board of Health, the executive heads of cities and towns, and the Local Health Officer each can implement authorities within the scope of their jurisdiction aimed at protecting the public's health. The following authorities may be utilized with regards to extreme weather events:

Governor of Washington State

The Governor has authority to proclaim a state of emergency after finding that a disaster affects life, health, property, or the public peace (RCW 43.06.010(12)). The Governor may assume direct operational control over all or part of local emergency management functions if the disaster is beyond local control (RCW 38.52.050). After proclaiming a state of emergency, the Governor has the authority to restrict public assembly, order periods of curfew, and prohibit activities that they believe should be prohibited to maintain life and health (RCW 43.06.220).

Washington State Department of Labor and Industries (WA L&I)

- **Wildfire smoke**: Washington L&I's permanent wildfire smoke rules require employers to protect workers exposed to wildfire smoke on the job, including all personnel who spend one or more hour(s) outdoors while performing their occupational duties. The rules require employers make respirators available upon for request by staff for voluntary use at AQI levels of Unhealthy for Sensitive Groups and above (WAC 296-820-805).
- **Extreme heat**: Washington L&I's outdoor heat exposure rules require employers to take action to protect workers exposed to extreme heat on the job, including by addressing outdoor heat exposure safety in their Accident Prevention Programs, providing annual training, and providing sufficient amount of drinking water and adequate shade (WAC 296-62-095).

The State Secretary of Health

The Secretary of Health shall enforce all laws for the protection of the public health, and all rules, regulations, and orders of the State Board of Health (RCW 43.70.130(3)). The Secretary shall enforce public health laws, rules, regulations, and orders in local matters when there is an emergency, and the local Board of Health has failed to act with sufficient promptness or efficiency or is unable to act for reasons beyond its control (RCW 43.70.130(4)). The Secretary has the same authority as Local Health Officers but will not exercise that authority unless: (a) the Local Health Officer fails or is unable to do so; (b) by agreement with the Local Health Officer or local board of health; or (c) when in an emergency the safety of the public health demands it (RCW 43.70.130(7)).

King County Executive

The King County Executive may proclaim a state of emergency within King County when, in the judgment of the Executive, extraordinary measures are necessary to protect public peace, safety, and welfare (K.C.C. 12.52.030.A). Under a state of emergency, the Executive may impose curfews, close any or all private businesses, close any or all public buildings and places including streets, alleys, schools, parks,

beaches, and amusement areas, and proclaim any such orders as are imminently necessary for the protection of life and property (K.C.C. 12.52.030.B).

King County Board of Health

The jurisdiction of local Board of Health is coextensive with the boundaries of the county (RCW 70.05.035). The local Board of Health shall supervise all matters pertaining to the preservation of the life and health of the people within its jurisdiction (RCW 70.05.060). The Board shall enforce through the Local Health Officer the public health statutes of the state and the rules promulgated by the State Board of Health and the Secretary of Health (RCW 70.05.060(1)). The Board may also enact such local rules and regulations as are necessary to preserve and promote the public health and to provide the enforcement of those rules and regulations (RCW 70.05.060(3)).

Local Health Officer

The Local Health Officer acts under the direction of the local Board of Health (RCW 70.05.070). The Local Health Officer enforces the public health statutes, rules and regulations of the state and the local Board of Health (RCW 70.05.070(1)).

- **Wildfire smoke**: If the air quality index (AQI) reaches Hazardous Levels, Public Health may issue a Local Health Officer order temporarily suspending non-essential public outdoor events and activities, including concerts, festivals, fairs, or major sporting events that have the potential to result in the exposure of large crowds to hazardous conditions. In instances when AQI values remain below the Hazardous Level, Public Health may issue general recommendations, which may include the temporary suspension or cancelation of outdoor events. In these cases, it remains the discretion of the event organizer to take appropriate action(s) to limit the potential for public exposure to conditions that may be harmful to public health.
- **Extreme Heat**: The Local Health Officer may issue a Local Health Officer Order canceling or temporarily suspending outdoor activities if heat rises to a specific threshold, per Local Health Officer authorities (WAC 296-62-095).

Municipal Executives and Mayors

Washington is a home rule state, giving political subdivisions the authority to exercise emergency functions, as outlined within RCW 38.52.070. Municipalities throughout King County may have explicit emergency powers and authorities in their municipal codes.

- City of Seattle: The Mayor of Seattle may proclaim a state of civil emergency within the city when, in the judgment of the Mayor, extraordinary measures are necessary to protect public peace, safety, and welfare (SMC 10.02.010.A). Under a state of civil emergency, the Mayor may impose curfews, close any or all business establishments, close any or all public buildings and places including streets, alleys, schools, parks, beaches, and amusement areas, direct the use of all public and private health, medical, and convalescent facilities and equipment to provide emergency health and medical care for injured persons, and proclaim any such orders as are imminently necessary for the protection of life and property (SMC 10.02.020).

Responsibilities

State Departments

- Declare a state of emergency and issue emergency proclamations for extreme weather events impacting large portions of the state otherwise requiring state resources (Governor's Office).

    - Currently, the state provides funding to eligible jurisdictions for extreme heat, cold, and poor air quality response activities through its Extreme Weather Response Grant program. Funding is available for 1) reimbursing costs from extreme weather event response and 2) advancing activities to improve sheltering capacity (WA EMD). As of January 2025, the response reimbursement component has been suspended, although funding for preparedness activities remains available.
- Coordinate state-wide wildfire smoke situational awareness and coordination through the Washington wildfire interagency coordination call, led by the Department of Ecology.

County Departments

Per King County's extreme weather playbooks (extreme heat, wildfire smoke, and flooding), the following department responsibilities include:

King County Office of Emergency Management:

- Coordinate King County extreme weather responses in line with King County's Comprehensive Emergency Management Plan.
- Maintain and implement King County extreme weather playbooks (extreme heat, wildfire smoke, and flooding).
- Lead coordination of regional public information officers risk communication activities prior to and during extreme weather events.

King County Department of Community and Human Services

- Coordinate activities of Emergency Support Function #6 – Mass Care agencies.
- Lead emergency sheltering operations serving unincorporated King County areas.

King County Regional Homelessness Authority

- Lead emergency sheltering operations primarily serving individuals living unsheltered across King County.

King County Metro

- Communicate impacts to and shutdowns of public transportation routes in a timely manner.
- Participate in and share essential information with ESF #8's Critical Medical Appointment Transportation Taskforce, as needed.

City/Municipal Jurisdictions

All cities

- Provide emergency sheltering and mass care services, per their municipal response plans.
- Amplify public health and safety messaging, prioritizing those most at risk from the hazard.
- Implement WA Labor & Industries rulings to protect health and safety of employees.

Seattle Office of Emergency Management

- Alert Public Health of EOC activations involving public health response activities such as requests for public health guidance and technical assistance.

Public Health – Seattle & King County

- Coordinate Emergency Support Function #8 – Health, Medical, and Mortuary Services partners as the ESF #8 lead agency, if activated by King County Office of Emergency Management.
- Provide relevant health and medical information and guidance to the public, including providing translated and culturally relevant information and guidance.
- Reporting on health and medical impacts to the community, Emergency Medical System services, and mortuary services.

- Division and Program responsibilities
    - *Assessment, Policy Development & Evaluation Unit (APDE):* conduct health impact surveillance and data tracking.
    - *Emergency Medical Services*: conduct service impact data tracking. During winter weather events, participate in the Critical Medical Appointment Transportation Task Force.
    - *Medical Examiner's Office*: conduct fatality data tracking.
    - *Communications Office*: provide health guidance and public information.
    - *Environmental Health Services*: provide technical guidance and assistance relating to health impacts of environmental health hazards, including sanitation and hygiene, air quality, etc.
    - *Healthcare for the Homeless Network*: Provide direct outreach and support to individuals experiencing homelessness and living unsheltered.
    - *Office of Equity and Community Partnerships*: Provide staff for Equity Officer and related equity roles; provide guidance and technical support for equitable community engagement; coordinate language accesses services (Language Access); coordinate community outreach and support (Community Navigator program)
    - *Preparedness Section*: provide information management, including maintaining situational awareness, resource management, and incident management support.

Public Health ESF #8 Support Agencies
ESF #8 support agencies are expected to fulfill responsibilities as outlined by the ESF # 8 Annex, as required during the extreme weather event. Broad responsibilities of all ESF #8 agencies include:

- Communicate public health, medical, and mortuary service needs and impacts to Public Health.
- Provide extreme weather response support as defined within scope of each partners' response plans.
- Fulfill specific responsibilities defined in the Critical Medical Appointment Transportation Plan, for relevant ESF #8 support agencies.

Initial Response Process

Notification and Warning

Public Health's Preparedness Section (Preparedness) receives National Weather Service (NWS) alerts regarding forecasted extreme heat and severe winter weather events, while the Puget Sound Clean Air Agency (PSCAA) provides alerts regarding wildfire smoke impacts to air quality. Following an alert, Preparedness monitors the forecast and attends NWS or PSCAA briefings. Preparedness will notify Public Health divisions and programs that have identified roles in response operations:

- Assessment, Policy Development & Evaluation Unit (APDE)
- Communications Office
- Environmental Health Services (EHS)
- Emergency Medical Services (EMS)
- Healthcare for the Homeless Network (HCHN)
- Medical Examiner's Office (MEO)
- Office of Equity and Community Partnerships (OECP)
- Preparedness Section

For hazard-specific information regarding notification and warning, see the extreme heat, severe winter weather, and wildfire smoke response playbooks.

Assessment

Preparedness staff coordinating the initial response process utilize relevant essential elements of information (EEI) to assess the severity of the event and the scope of response activities required to address the incident. Relevant EEIs are outlined in each hazard playbook for extreme heat, severe winter weather, and wildfire smoke. Criteria for assessment includes current or potential scale, urgency, complexity, equity, and Public Health capacity.

Preparedness will seek to gather information from King County OEM, City of Seattle Office of Emergency Management (Seattle OEM), and the Northwest Healthcare Response Network (NWHRN) regarding any actions underway or being planned by local emergency management, other city and county departments, and healthcare systems. These actions may further inform the need for Public Health to initiate incident action planning. Preparedness will attend pre-incident briefings and meetings organized by King County OEM, Seattle OEM, and NWHRN and invite Public Health divisions and programs to participate as appropriate.

Based on Preparedness' assessment of the situation, forecasted impact to King County, and planned response partner activities, Preparedness may either convene Public Health divisions and programs with a response role for an initial assessment meeting or begin conducting information management via email.

Limited partner activities and the forecasted weather conditions may not necessitate a meeting of divisions and programs with identified roles in response operations. After initially reviewing EEIs and any other critical information requirements, Preparedness may send an email to initiate situational awareness across the divisions and programs without recommending a response meeting. This information exchange via email may continue throughout the severe weather event if divisions and programs feel confident in their ability to manage response activities without additional coordination. This is considered a partial activation, as described below.

In other circumstances, Public Health divisions and programs with identified roles in response operations may be asked to attend a meeting facilitated by Preparedness to review the situation and EEIs to make an informed decision on the need to initiate incident action planning. This may lead to a full activation, described below.

After reviewing EEIs and any other critical information requirements, Preparedness and divisions and programs with a response role should:

- **Make a recommendation on an appropriate incident management structure.** Depending on the incident complexity, Public Health may partially or fully activate Public Health's Health and Medical Area Command (HMAC) to support divisions and programs in preparing for an extreme heat event and managing any subsequent emergency response operations.

  During a **partial activation**, response to the extreme heat event may require ongoing information sharing and coordination across Public Health divisions and with external response partners, such as King County OEM and Seattle OEM. Preparedness will attend response partner meetings and share any updates to the forecast, partner activities, and requests for information

with identified Public Health response staff via email. In this partial activation state, staff identified from APDE, EMS, MEO, HCHN, EHS, and Communications should share updates on any planned and conducted response activities with Preparedness throughout the event. If the complexity of the extreme heat event increases, Preparedness will convene a meeting with identified Public Health staff to determine additional support needs and recommend an appropriate incident command structure, as necessary, which may lead to a full activation.

When **fully activated**, HMAC serves as Public Health's single coordination point for incident response and follows a formal incident action planning process consistent with the National Incident Management System (NIMS). The role of HMAC is further defined in the Emergency Support Function (ESF) 8 Annex to King County's Comprehensive Emergency Management Plan.

- For severe winter weather response, it is expected that emergency coordination and incident management will **occur remotely**. This eliminates the need for staff to drive and/or use transit during dangerous travel conditions, although remote staff may still be impacted by power outages. If the situation becomes more complex, the response may transition to an in-person HMAC activation. Staff will be able to make the determination of whether or not they can safely travel to the designated location. Staff will not be asked to travel in dangerous conditions.
- Other key response activities require in-person presence, such as direct outreach services, technical services at flood recovery centers, or staffing support for severe weather shelters. These activities may also be impacted by the severe weather due to hazardous conditions, such as snow accumulation, and the services unable to be provided. The incident management structure will reflect the available resources of the response incident.

- **Make a recommendation on incident objectives and resource requirements for the first operational period.** Public Health should manage extreme heat events by developing objectives that define what must be accomplished to protect community health and limit health disparities. The availability of personnel, equipment, supplies, or facilities should be considered when developing objectives. It is recommended that the first operational period for an extreme heat event be at least 24 hours or longer depending on NWS forecasts.
- Participants should share meeting outcomes with other Public Health staff who may be responsible for responding to the extreme weather event.

Public Health's Workforce Mobilization Annex includes additional considerations for communicating with potential responders. For more information, including hazard-specific EEIs, see the extreme heat, wildfire smoke, and winter weather response playbooks.

Agency Administrator Briefing

If HMAC activation is recommended, Preparedness will schedule an Agency Administrator Briefing with the Public Health Director, Public Health Deputy Director, and Local Health Officer (LHO) and present the following:

- Watch, Warning, and Advisory products issued by NWS
- EEIs and other critical information
- Recommended incident management structure to address the incident
- Recommended response objectives and resource requirements for the first operational period

Other Public Health staff may attend the Agency Administrator briefing at the request of the Public Health Director, Public Health Deputy Director, or LHO. Preparedness may also ask other Public Health divisions and programs that have identified roles in response operations to attend.

Briefing participants should agree to an incident management structure as well as incident objectives and resource requirements for the first operational period.

Incident Management Team and Responder Mobilization

If HMAC is activated, Preparedness will mobilize staff from its HMAC Incident Management Team (IMT) roster to fill Command and General Staff positions within HMAC's incident command structure. The following positions are typically staffed by the HMAC IMT:

- Agency Administrator
- Incident/Area Commander
- Safety Officer
- Liaison Officer
- Equity Officer
- Public Information Officer
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance and Administration Section Chief

The Incident/Area Commander (IC/AC) may choose to staff fewer Command and General Staff positions than those outlined above in consideration of the incident objectives and resource requirements for the specific forecasted severe weather conditions, EEIs, and other situational information. They may also choose to staff more positions depending on what is needed to facilitate effective incident management.

Public Health divisions and programs that have identified roles in response operations are responsible for assigning Public Health staff as responders to the Operations Section. The following services may be reflected in the roles and responsibilities of staff serving in the Operations Section:

- Epidemiology, Surveillance and Data
- Health Guidance and Information
- Information Management
- Environmental Health Hazard Management
- Healthcare System Support
- Responder Safety and Wellbeing

Public Health's Workforce Mobilization Annex includes additional considerations for identifying and assigning responders.

If HMAC is not activated, Public Health divisions and programs are still encouraged to use incident management processes, responsibilities, and functions to effectively manage the impacts of a severe weather event as they carry out response operations. Even if not initially activated, HMAC can also be partially or fully activated in support of divisions and programs as a severe weather event unfolds.

Incident Briefing

The IC/AC should deliver an Incident Briefing to the HMAC IMT and other responders. An ICS 201 Incident Briefing may be used to help prepare for and facilitate the briefing.

Following the briefing, an HMAC Activation Notice should be sent to Public Health leadership and staff and external partners, the HMAC IMT, and any other responders. The Incident Briefing leads into the initial operational period and marks the start of proactive incident management for an extreme weather event. Facilitated by the HMAC Planning Section, an Incident Action Plan (IAP) should be developed for the first operational period and then executed.

Response Operations

Overview

This section documents the full scope of Public Health's response activities to address the health, medical, and mortuary service needs and impacts during an extreme weather event. The following response objectives are organized by response areas which fall within the scope of *Emergency Support Function #8 – Public Health and Medical Services (ESF #8).* They include:

- Epidemiology, Surveillance, and Data
- Health Guidance and Public Information
- Information Management
- Environmental Health Hazard Management
- Healthcare System Support
- Responder Safety and Wellbeing

The following objectives and strategies should be considered for inclusion in an IAP for an extreme weather event. **All objectives can be used at any point during a severe weather response,** as required by the scope of the response and at the discretion of the Area Commander. When adapting the following objectives to the incident-specific IAP, refer to the *Equity Response Annex* and the *Equity Impact Review Tool* to assess the response activity impacts and decision-making process.

Resourcing Operations

Public Health operations require resources and personnel to be reprioritized, acquired, staged, transported, dispensed, tracked, and eventually demobilized throughout the course of a response. There are three critical resource dependencies which impact the ability of Public Health to quickly carry out response operations: finance, policy, and critical infrastructure. Limitations and stipulations in these areas constrain the ability to rapidly activate and conduct emergency response operations.

During the initial response process, a review of needs in these three areas should be conducted, as needed, prior to the first operational period. Elements to consider include:

Finance:

- Available emergency funding sources for staff time, rapid purchasing and deployment of medical resources (e.g., PPE), additional resources.
- Pre-approved emergency time codes.
- Existing memorandums of agreement or understanding (MOUs), contracts, and emergency contracting processes.

Policy

- Federal, state, and local policies and emergency rulings relating to response authorities and responsibilities.
- County and department contracting policies.
- County and department policies and protocols relating to language access services, such as translation, interpretation, and a culturally-informed review of material for distribution.
- County and department staffing policies and labor agreements relating to deployment of staff outside their normal duties, particularly with respect to Public Health nurses and Environmental Health Division staff.

Critical infrastructure

Resources must be diverted from their routine uses to support an emergency response. When sufficient resources and critical infrastructure such as personnel, facilities, equipment, supplies, and funding are not available, it delays the ability to carry out response operations and provide support to the affected community. Further, critical infrastructure must be supported by common emergency response organizational structures, decision-making frameworks, and information sharing networks that maximizes its use. Capabilities that may have insufficient critical infrastructure or have insufficient support include:

- **Equity and community-centered processes**: funding and staffing for positions to maintain relationships with communities beyond the duration of a response, which creates barriers to positive, sustained relationships with communities; limited funding and training opportunities for Public Health staff to practice developing community- and accessibility-centered approaches during response; funding and processes for surge staffing, emergency contracts, translation, and technical advisor positions would be necessary to adequately staff and carry out the identified equity objectives and strategies in this annex.
- **Surge staffing:** limited foundational department staffing with regards to Environmental Health technical support and community outreach; budget constraints; employee scope limitations and reassignment limitations; limited mechanisms for reassignment.
- **Resource distribution:** Significantly limited infrastructure and resources for distribution of critical medical resources (such as N95 masks and HEPA filters) to the community.

Policies, funding, and improved critical infrastructure in the above areas will directly support quicker, more effective extreme weather response operations across King County.

Using Objectives and Strategies

The following objectives and strategies are arranged to both guide response activities and direct operational staff to relevant documentation of more tactical procedures and resources.

- The **objectives** can be used to inform development of the *Incident Action Plan*. Objectives are templates to be adapted to fit the response scope and remain responsive to community needs. Objectives can also be used to quickly find operational documents to support the identified strategies and carry out tactical activities by Operations Section branches. Relevant documents are linked as *Attachments* and *Resources*. These links direct responders from this annex to Public Health's virtual response space, which includes more operational documents and response tools.

- The **Lead** and **Support** components refer to HMAC's incident management roles unless otherwise stated (King County Human Resources Department, King County IT, etc.). Identified *Lead* and *Support* roles may include command staff and incident management functional areas, such as the HMAC Planning Section, and key organizational elements within the HMAC Operations Section, such as an *Environmental Health Branch* or the *Community Mitigation and Wellbeing Branch*. While these specific operations units are identified below, the incident management structure should match the needs of the extreme weather incident. HMAC's organizational structure will develop in a modular fashion based on the incident's size and complexity. Leads are identified to ensure accountability for each objective and strategy, with the understanding that supervisory positions may delegate responsibility and supervisory levels may be added to the organizational structure as needed.

The objective and strategy layout includes:

Response Service: A collection of response activities within the responsibilities defined in ESF #8.

Objective: High level priority action statement which aligns with scope of Public Health's roles and responsibilities outlined in ESF #8.

- *Strategy:* Targeted action statement relating to the objective. Not all strategies may be implemented; they are strategies to select or prioritize based on the incident
  - **Lead:** HMAC element responsible for carrying out the objective and strategy.
  - **Support:** HMAC element with whom the Lead should coordinate while carrying out the response activity
  - **Resource:** Documents which may include further guidance or information to support carrying out an objective or strategy

Response Objectives and Strategies

The following section provides a list of objectives and strategies within their relevant response areas.

Epidemiology, Surveillance, and Data

Objective: Collect data on severe weather-related health impacts to populations.

- *Strategy:* Track severe weather-related visits to health care facilities.
  - **Lead:** Epidemiology and Surveillance Branch
    - **Attachments:** *Severe Winter Weather Data Tracking*; *Extreme Heat Data Tracking*; *Wildfire Smoke Data Tracking*
- *Strategy:* Track relevant fatality data and information.
  - **Lead**: Epidemiology and Surveillance Branch
    - **Attachments**: **Attachments:** *Severe Winter Weather Data Tracking*; *Extreme Heat Data Tracking*
- *Strategy:* Track extreme-weather related emergency calls.
  - **Leads:** Epidemiology and Surveillance Branch
    - **Attachments:** *Severe Winter Weather Data Tracking*; *Extreme Heat Data Tracking*; *Wildfire Smoke Data Tracking*

Objective: Monitor impacts to healthcare facilities, including hospital capacity and impacted access to healthcare facilities.

- *Strategy:* Receive WATrac Bed Status and Boarder Report from NWHRN.
    - **Lead**: HMAC Liaison Officer
- *Strategy:* Receive reports from NWHRN on impacts to healthcare facilities and any activation of DMCC.
    - **Lead**: HMAC Liaison Officer

Objective: Identify service delivery gaps (direct outreach, language access, resources, etc.) in disproportionately impacted communities across King County.

- *Strategy*: Receive input and updates from Office of Equity and Community Partnerships.
    - **Lead**: HMAC Equity Officer

Health Guidance and Public Information

Health Guidance

Objective: Develop and disseminate health guidance specific to the incident for the public.

- *Strategy*: Adapt existing health guidance and resources to severe weather event-specific information.
    - **Lead**: Environmental Health Branch
    - **Support***:* Public Information Officer
- *Strategy*: Disseminate guidance for public actions to protect health and safety.
    - **Lead**: Public Information Officer
    - **Support:** Communications Response Team, Community Mitigation and Wellbeing Branch, Health Guidance and Information Task Force, if activated

Objective: Develop and disseminate health guidance specific to the incident for at-risk populations and settings.

- *Strategy*: Adapt and disseminate guidance that centers the needs of populations impacted by inequities and priority at-risk groups and settings.
    - **Lead**: Community Mitigation and Wellbeing Branch
    - **Support**: Environmental Health Branch; Public Information Officer; Communications Response Team; Health Guidance and Information Task Force, if activated;
        - Resource: *Multilingual Document Library*
- *Strategy:* Ensure that guidance and resources include anti-racist language developed in multiple formats (to support Access and Functional Needs (AFN) communities), languages, and include the option for interpretation.
    - **Leads***:* Public Information Officer; Equity Officer
        - **Resource***: Equity Response Annex*

Objective: Develop and disseminate health guidance and recommendations specific to response partners.

- *Strategy*: Recommend promotion of health risk information for partners serving priority at-risk populations and settings, including unhoused populations; seniors and the elderly; childcare

facilities; outside laborers; King County school districts and independent school association; and restaurant workers.
    - **Lead**: HMAC Liaison and Public Information Officers
- *Strategy:* Develop health and safety recommendations for reduction of outdoor activities (youth camps, events, sports, etc.) and services (including for outdoor workers).
    - **Lead**: Environmental Health Services Branch
    - **Approval**: Local Health Officer
- *Strategy:* Recommend opening of emergency shelters based on assessment of situation.
    - **Lead**: Local Health Officer
    - **Support**: Environmental Health; HMAC Liaison

Objective: Develop and disseminate health and safety guidance and recommendations specific to Public Health employees.

- *Strategy*: Recommend reduction of outdoor Public Health services due to weather impacts. (i.e. COOP activation for services in outdoor settings; staff safety resources).
    - **Lead**: Employee Health (Public Health)
    - **Support**: Department of HR, Central Employee Services Division
    - **Authority**: Human Resources: Safety & Claims
- *Strategy*: Disseminate Public Health employee resources upon request.
    - **Lead**: Employee Health (Public Health)
    - **Support**: Department of HR, Central Employee Services Division
    - **Authority**: Human Resources: Safety & Claims

Public Information

Objective: Communicate core risk communications to provide accurate and actionable information for the public.

- *Strategy*: Utilize social media platforms, media channels, and community engagement and outreach processes to communicate key risk messages to the public.
    - **Lead**: Public Information Officer
    - **Support**: Equity Officer; Public Information Officer

Objective: Communicate accurate and actionable risk communications for at-risk populations and settings.

- *Strategy*: Utilize *social media platforms* to communicate key risk messages to impacted communities and populations.
    - **Lead**: Public Information Officer
- *Strategy*: Utilize *media channels* to communicate key risk messages to impacted communities and populations. Promote health and safety messages on platforms in addition to Public Health's regular channels, considering alternative outlets to target specific at-risk groups (radio channels; community blogs and newspapers; community centers; faith-based organizations; schools; libraries; etc.)
    - **Leads**: Public Information Officer
    - **Support**: Equity Officer; Community Mitigation and Wellbeing Branch
        - **Resource**: *Equity Response Annex*

- *Strategy*: Utilize *community engagement and outreach process* to communicate key risk messages to impacted communities and populations.
- *Strategy*: Provide messaging and recommendations in multiple languages, formats, and with the option for interpretation for where to seek ongoing and critical health services.
    - **Lead**: Public Information Officer
    - **Support**: Equity Officer; Community Mitigation and Wellbeing Branch
        - Resource: *Multilingual Document Library*
        - **Resource**: *Equity Response Annex*
- *Strategy*: Provide relevant messaging for regulated facilities impacted by severe weather.
    - **Lead**: Environmental Health Branch
- *Strategy:* Provide relevant messaging for restaurants about employee safety and food spoilage.
    - **Lead**: Environmental Health Branch

Objective: Communicate accurate and actionable risk communications for response partners.

- *Strategy*: Utilize social media platforms, media channels, and community engagement to communicate key risk messages to response partners.
    - **Lead**: Public Information Officer
    - **Support**: Equity Officer; Public Information Officer
- *Strategy*: Develop relevant, specific, actionable messaging for emergency severe weather shelter operators.
    - **Lead**: Community Mitigation and Wellbeing Branch
    - **Support**: Public Information Officer; Communications Response Team; Equity Officer; Regional Homelessness Authority
        - **Resource**: *Equity Response Annex; Workforce Mobilization Annex*

Objective: Monitor and assess media sites for community needs and gaps in information relating to the hazard and available resources and services.

- *Strategy*: Coordinate with *Community Mitigation and Wellbeing Branch* to identify sources of information utilized by at-risk populations and settings.
    - **Lead**: Public Information Officer

Community Engagement and Outreach

Objective: Conduct in-language and culturally informed outreach to at-risk and most impacted communities.

- *Strategy*: Conduct outreach to community-based organizations, faith-based organizations, community centers, shelters, schools, and other organizations active in disasters to ensure guidance and information is disseminated effectively.
    - **Lead**: Community Mitigation and Wellbeing Branch
    - **Support**: Public Information Officer; Communications Response Team; Equity Officer
        - **Resource**: *Equity Response Annex; Workforce Mobilization Annex*
- *Strategy:* Connect individuals receiving Mobile Medical Services with emergency shelter location information.
    - Lead: Healthcare for the Homeless Network

- *Strategy*: Liase with Regional Homelessness Authority, as needed.
    - Lead: Healthcare for the Homeless Network
- *Strategy*: Provide volunteer management support for outreach activities, if necessary.
    - **Lead**: Community Mitigation and Wellbeing Branch
    - **Support**: Logistics Section; Operations Section
        - **Resource**: *Equity Response Annex; Workforce Mobilization Annex*

Information Management

Gather Information

Objective: Track relevant data and information sources to maintain situational awareness of the incident relating to key response elements.

- *Strategy:* Monitor weather forecasts, alerts, and warnings.
    - **Lead:** HMAC Planning Section (Situation Unit)
    - **Support:** Environment Health Branch
        - **Attachments:** Response Coordinator Guides: Heat, Winter Weather; Response Resources: Heat, Wildfire Smoke, Severe Winter Weather
- *Strategy:* Monitor WebEOC for updates on weather.
    - **Lead**: HMAC Planning Section
- *Strategy:* Monitor severe weather shelter information shared by King County OEM, King County Regional Homelessness Authority (KC RHA), and available on WebEOC.
    - **Lead:** Planning Section
    - **Support:** Environment Health Branch
        - **Attachments:** Response Coordinator Guides: Heat, Winter Weather; Response Resources: Heat, Wildfire Smoke, Severe Winter Weather

Objective: Monitor impacts to Public Health services and sites.

- *Strategy*: Request reports from COOP Liaisons on impacts to Priority 1 functions and facility status.
    - Lead: HMAC Liaison Officer
- *Strategy:* Monitor status of other Public Health departmental services.
    - **Lead:** Planning Section
    - **Support:** Public Health Office of the Director; Continuity of Operations (COOP) Lead
        - **Resource:** *Public Health Continuity of Operations Plan*
        - **Attachment***: Continuity Service Impact Reporting Process (2023).docx*

Objective: Maintain situational awareness of key HMAC, ESF #8, and related partner response activities and information.

- *Strategy*: Utilize information collection process to maintain awareness of HMAC directed, conducted, and planned response activities.
    - **Lead:** HMAC Planning Section (Situation Unit)
        - **Resource:** *Situation Unit Job Aid; Operational Summary Form*

- *Strategy*: Monitor and participate in relevant ESF #8 and response partner briefings, reports, and communication channels to maintain situational awareness of response activities and information
    - **Lead:** HMAC Liaison Officer
- *Strategy:* Monitor relevant policy, proclamations, and mandates impacting response activities and resources.
    - **Lead**: Public Information Officer
    - **Support***:* Planning Section

Objective: Prepare situational briefings, reports, displays, briefing tools, and other information products as needed to effectively assess the situation.

- *Strategy*: Integrate forecasts*,* data on health impacts, other response tracking data, and relevant external data visualization products into coordination meeting resources (briefing documents, PowerPoints, attachments) and HMAC displays (projected displays, written, on HMAC television screen, etc.) as needed.
    - **Lead:** Planning Section (Situation Unit)
        - **Resource:** *HMAC Planning Section resources*

Document

Objective: Document key situational awareness data elements, including forecasts, emergency shelter information, health impacts, guidance recommendations, and related information.

- *Strategy*: Maintain updated documentation of key situational awareness data for use by HMAC responders, in alignment with Public Information Officer and *Communications Response Team* documents.
    - **Lead**: Planning Section
        - **Attachments**: *Severe Winter Weather Surveillance Response Guidance; Extreme Heat Surveillance Response Guidance; Wildfire Smoke Surveillance Response Guidance*
        - **Resource:** *Risk Communications Response Annex*; *HMAC Planning Section resources*
- *Strategy*: Document key data elements for use by response partners, such as ESF #8 responders, emergency managers, emergency response, key healthcare partners, and other response agencies and organizations in routine snapshots or situation reports.
    - **Lead**: Planning Section
        - **Resource:** *HMAC Planning Section resources (Situation Report Template; Snapshot Template)*

Dissemination

Objective: Disseminate information across response operations and to response partners.

- *Strategy*: Disseminate information, including on forecasts, health impacts, emergency shelter locations, and continuity of Public Health services and sites via HMAC snapshots, situation reports, and IAPs as needed.
    - **Lead**: Planning Section

        - **Resource:** *HMAC Planning Section resources (Situation Report template, snapshot template; WebEOC SOP; HMAC Distribution List)*

Objective: Respond to HMAC and response partner requests for response-related information and resources.

- **Lead**: Planning Section
- **Support**: Public Information Officer; Policy Officer

Environmental Hazard Management

Objective: Support partner needs at priority extreme weather shelters serving those most at risk during the incident.

- *Strategy:* Support shelter operations within the scope of *Emergency Support Function #8 – Health, Medical, and Mortuary Services*, as requested.
    - **Lead**: HMAC Logistics Section
    - **Attachment:** *PHRC Request Process and Scope*
    - **Resource:** *Shelter Resource List: Durable Medical Supplies* ; *PHRC Severe Weather Shelter Guidance*
- *Strategy*: Provide ventilation and filtration guidance and resources, as available, to key severe winter weather shelter locations.
    - **Lead**: Environmental Health Branch
        - **Attachment***: Severe Winter Weather Communications Resources*
- *Strategy*: Provide Public Health Reserve Corps volunteer support for first aid and triage at severe weather shelters, at partner request.
    - **Lead**: HMAC Logistics Section
        - **Resource***: PHRC Severe Weather Shelter Guidance*

Objective: Provide tailored technical guidance relating to the hazard's impact on human health, as resourcing allows.

- *Strategy:* Provide environmental health subject matter expertise at community recovery centers to advise impacted homeowners, property managers, and impacted business facilities on environmental health-related guidance and safety information and resources.
    - **Lead**: Environmental Health Branch
    - **Support**: OECP (including Community Navigators)
        - **Attachment***: Environmental Health Flood Response Service Plan*
- *Strategy*: Advise response partners, such as public works, utilities, and ESF #6 agencies, on safety information and applicable regulations relating to specific environmental health technical areas, such as sanitation and hygiene; abatement and remediation; solid waste and debris management; rodent abatement; and safe food distribution.
    - **Lead**: Environmental Health Branch
    - **Support**: Planning Section
        - **Attachment***: Environmental Health Flood Response Service Plan*
- *Strategy*: Advise response partners performing sampling, testing, and monitoring associated with sewage release to public waters associated with severe weather events, such as flooding.
    - **Lead**: Environmental Health Branch
        - **Reference:** Lake Swimming Beach Bacteria; Beach Closure Protocol

- **Attachment***: Environmental Health Flood Response Service Plan*

Objective: Determine closures and restrictions of regulated water recreational spaces and settings impacted by severe weather events or related environmental health hazards.

- *Strategy:* Provide closure and reopening recommendations for recreational swimming beaches, based on adverse environmental conditions, such as harmful algal blooms, sewage releases, or other water contaminants affecting water quality.
  - **Lead:** Environmental Health Branch

Healthcare System Support

Objective: Coordinate with partners involved in critical medical appointment transportation to respond to community needs during severe winter weather events.

- *Strategy*: Convene conference call with agencies involved in critical medical transportation and determine appropriate level of response structure.
- *Strategy*: Facilitate in Critical Medical Transportation Task Force.
  - **Lead**: HMAC Liaison
    - **Attachment:** *King County Winter Weather Critical Medical Appointment Transportation Procedures*
    - **Attachment:** CMAT Contact List (Tab 2)

Objective: Address healthcare system requests for materiel support to mitigate severe weather impacts.

- *Strategy*: Coordinate with the Northwest Healthcare Response Network to fulfill non-medical resource requests from healthcare facilities.
  - **Lead**: HMAC Logistics Section
    - **Resource:** *Logistics Section Guide*
    - **Resource**: NWHRN Resource request process
- *Strategy*: Manage health-related resource requests from response partners (such as durable medical equipment for emergency severe weather shelters).
  - **Lead**: HMAC Logistics Section
    - **Resource**: NWHRN Resource request process
    - **Resource:** *Logistics Section Guide*
- *Strategy:* Address requests from healthcare settings, such as indoor air quality guidance for Long-Term Care facilities and adult family homes.
  - **Lead**: HMAC Liaison Officer
  - **Support**: Environmental Health Branch

Objective: Provide public health support to communities and key healthcare settings requiring evacuation due to prolonged severe weather impacts and cascading effects, such as power outages.

- *Strategy*: Provide support to the emergency transportation needs of medically fragile patients from impacted healthcare settings and long-term care facilities.
  - **Lead**: HMAC Liaison Officer
  - **Attachment**: *LTCF Evacuation_ Medically Fragile Patients*

Objective: Provide public health support to communities and key settings disproportionately affected by severe weather impacts (e.g., power outages).

- *Strategy*: Advise emergency management and utility partners on prioritization of high-risk households during Public Safety Power Shutoffs through use of the emPOWER Dataset.
    - **Lead**: HMAC Liaison Officer
    - **Attachment**: Power-Dependent Medical Equipment Support.docx
- *Strategy*: Advise on alternative options for individuals to charge power-dependent medical equipment, in collaboration with response partners.
    - **Lead**: HMAC Liaison Officer
    - **Attachment**: *Power-Dependent Medical Equipment Support*

Objective: Investigate reports of communicable diseases or outbreaks associated with response operations, such as within emergency shelter locations, congregate settings, among responders.

- **Lead**: Epidemiology and Surveillance Branch

Responder Safety and Wellbeing

Objective: Implement safety measures and wellbeing to support responder safety.

- *Strategy:* Distribute severe weather safety guidance to Public Health staff involved in response activities.
    - **Attachment**: *Wildfire Smoke Responder Use of PPE*; *PHSKC Field Operations for Wildfire Smoke* ; *Extreme Heat Guidelines for PHSKC Field Operations*
- *Strategy*: Recommend safe work/rest ratio and staffing support accommodations (e.g., childcare, meals, overnight needs, ergonomic resources).
- *Strategy*: Provide appropriate PPE guidance, fit-testing, and training for response staff.
    - **Support**: Logistics Section; Operations Section Chief; Public Health Employee Health
- *Strategy*: Implement relevant safety measures to protect the safety of responders as identified in relevant severe weather exposure guidance, physical safety guidance, and related material.
    - **Lead**: Safety Officer
        - **Attachment**: *Weather Response Accommodations*

Objective: Continuously assess safety and wellbeing needs and revise safety staffing plan as necessary.

- *Strategy*: Assess and recommend changes to responder safety requirements and recommendations, including safety measures, and wellbeing measures to meet the needs and scope of the response.
- *Strategy*: Conduct regular site visits as needed to engage with field staff to review safety of facility and procedures used by staff and make recommendations for improvements.
    - **Lead:** Safety Officer or delegated Responder Safety Team
    - **Support**: Operations Section Chief and/or appropriate Branch or Group Supervisor

Demobilization and Transition

Planning for demobilization begins at the start of the response to ensure an orderly and appropriately phased conclusion of response activities. This requires identifying and communicating criteria for demobilization or transition. To respond effectively to a longer duration extreme weather event, different activities and/or roles may demobilize or transition to division-led operations at different stages of the event. Transition planning is a key component to effective demobilization of response operations.

Demobilization Criteria

The timing to start demobilization actions differs based on the type of severe weather event. Criteria for commencing demobilization actions is listed below by event type.

- **Extreme heat**
  - The duration of the National Weather Services' WWA products indicating extreme heat event is ended.
  - The forecast indicates heat is alleviating and HeatRisk Values are forecasted to fall to Yellow or Green levels. Lower Orange levels with high confidence of further cooling trends can also trigger demobilization actions.
  - The majority of objectives have been met following the extreme heat event (as indicated within by the NWS watch/warning/advisory products).
- **Severe winter weather**
  - The duration of the severe winter weather, defined by the National Weather Services' watch, warning, and advisory products, has ended.
  - The majority of objectives and partner requests have been met following the severe weather event (as indicated by the NWS watch, warning, and advisory products), including flood incidents.
- **Wildfire smoke**
  - The current Air Quality Index (AQI) falls below 101 **and** the forecast indicates AQI levels will continue to remain at moderate/good levels.
  - The forecast indicates AQI levels are or will be consistently dropping to moderate/good levels across the county (below AQI 101) in the next 24-hour period. A wildfire smoke forecast with high confidence of further improved air quality trends can also trigger demobilization actions.
  - The majority of objectives have been met following the wildfire smoke event (as indicated by the air quality forecast)

Some response activities required to address community and partner needs may continue beyond the timeline described above. If these response activities can be managed by programs and divisions without HMAC support, demobilization activities can continue.

Transition

A critical aspect of the demobilization of response operations is the transition of activities back to being led by divisions and programs. The process of transitioning Health and Medical Area Command (HMAC) response activities must focus on building back departmental activities that emphasize staff and community well-being and highlight lessons learned from the response. Transition processes must be inclusive of and responsive to community voices highlighting the importance of continued response

services and center equity impacts of transitioning or demobilizing those services. Transition processes must also sustain cross-departmental relationships and collaborations which were built during the response while minimizing administrative burdens on staff and partners.

Response Evaluation and Corrective Action Planning

Following demobilization, Preparedness staff may conduct an after-action review (AAR) which gathers input from responders involved in HMAC operations. The AAR serves to identify and evaluate response operation and incident management function strengths and areas for improvement. Public Health staff involved in the response are expected to participate in evaluation or debrief sessions as part of the demobilization process. For more complex events, additional feedback may be collected via interviews, surveys, at staff meetings during the response, and through other methods of engagement. A compilation and analysis of lessons learned gathered through the debrief sessions and other activities will make up the After-Action Report and Corrective Action Plan. Findings from the evaluation process will be shared with those involved in and impacted by the severe weather event.

Plan Maintenance

Review and revision

The Annex will be reviewed annually to ensure Public Health's response activities and health recommendations remain accurate for seasonal severe weather events. The revision process includes outreach to relevant Public Health divisions and programs represented in the plan, to ensure their response activities and services are documented accurately.

Preparedness planners will also use the AAR and corrective action plans following any activation of the plan to further improve the response processes. Based on this feedback, the plan will be updated to include lessons learned and address recommended improvements.

Every five years, a broad revision of the plan may be undertaken. This should include a targeted community engagement process to understand the rapidly changing impacts of ongoing climate trends on frontline communities. Preparedness planners may partner with other Public Health divisions, King County departments such as the Climate Office, and community partners such as King County Regional Homelessness Authority, to conduct any community assessments and feedback processes. Guidance for this process can be found in the *Public Health Response Planning Guide* and the *Community Engagement for Public Health Emergency Preparedness Guide*.

Socialization

Socialization is intended to inform partners of any changes following an annual update and revision of the document. Public Health divisions and programs and key partners directly involved in severe weather response will have participated in the revision process, ensuring thorough engagement prior to any socialization. Response plan briefings are conducted annually to update representatives from divisions and programs of any changes to the plan. Staff from across Public Health may also be invited to these briefings. Annual briefings with Public Health's Equity Response Team and Preparedness' Community Advisory group may also be conducted.

More broadly, relevant portions of the plan will be shared with the following groups, as needed:

- Public Health divisions and programs

- King County Office of Emergency Management
- City of Seattle Office of Emergency Management
- Emergency management representatives from local jurisdictions
- Relevant county departments and agencies
- Northwest Healthcare Response Network
- Critical Medical Appointment Task Force members

Every five years, Preparedness will conduct a comprehensive update to the plan. Broader socialization of changes to the Public Health's response scope of activities, guidance for response partners, and updates to risk communications will be conducted. Guidance can be found in the *Public Health Response Planning Guide* and the *Community Engagement for Public Health Emergency Preparedness Guide*.

Training and exercise

Preparedness maintains an Integrated Preparedness Plan (IPP), which details the training and exercise priorities for Public Health response actions. Portions of the Annex may be integrated into the IPP to ensure key capabilities are exercised and relevant training developed. Preparedness may conduct response coordinator trainings on an annual or biannual basis to ensure staff capacity to coordinate severe weather events.