

Green Kirkland Partnership

Weather and Environmental Safety Guidelines

The guidelines here are to supplement and not supersede other safety guidelines, policy or procedures including *the City of Kirkland Volunteer Policy and Procedures Handbook* and *City of Kirkland Accident Prevention and Safety Manual*.

Responsibilities for weather and environmental safety

Safety of volunteers, staff, and contractors is top priority and a joint responsibility of all those engaged in volunteer service.

Volunteer leaders have the responsibility and decision authority to cancel or relocate volunteer activities at any time if safety is a concern. Onsite volunteer leaders and/or volunteers serving without direct onsite supervision are responsible for checking the weather forecast, assessing local conditions, and maintaining communication with staff and other volunteers as needed. City staff are responsible for updating this document, communicating safety information, and training volunteer leaders and volunteer positions.

In general, staff (during work hours) will contact volunteer leaders, ongoing volunteers, and registered volunteers for **mandatory cancellation of volunteer activities**. Other listed actions are the responsibility of the onsite volunteer leader.

In general, if an extreme weather or environmental occurs during activities, the onsite volunteer leaders should ensure all volunteers take precautions or actions as appropriate and ensure that all volunteers on the roster are accounted for and/or have opted to end participation and safely left the site.

High Wind and Tornadoes

Cancellation or relocation of stewardship activities due to windy conditions in general will be determined on a case-by-case based on the site, local conditions, and/or forecast by either the onsite volunteer leader or City staff. Wind, coupled with tree cover can increase risk and create hazardous conditions from falling objects. Risk may differ based on location within the city, location within a park, and tree canopy composition. Wind speed, tree cover, and other field indicators can be useful indicators during less severe wind events.

1. **Mandatory cancellation of outdoor volunteer activities**
 - a. If National Weather Service (NWS) issues a High Wind Warning, Severe Thunderstorm Warning or Tornado Watch/Warning alert for the Kirkland area for the time duration of volunteer activities.
 - b. Should the above occur during activities, volunteers should be directed to take the closest substantial shelter by onsite leader and further activities are cancelled.
2. **Recommended Actions:** Onsite volunteer leader should arrive to site prior to activities and consider cancelling or relocating volunteer activities if:
 - a. **Wind speeds (sustained) are more than 15 mph or gusts are more than 25-30 mph the hour prior to or during the activities.**
 - b. A High Wind Advisory or Wind Watch has been issued for the Kirkland area for the duration of the activities.
 - c. If objects larger than 1/2" diameter branches/twigs fall from canopy.
 - d. If trees canopies/tops are swaying at alarming angles.
 - e. Relocate the volunteer activity site to an open area (no canopy) or safe area if possible.
3. **Site specific considerations:** Event leaders should be more conservative if the site has the following conditions:
 - a. Aging or unhealthy deciduous canopy (ivy on trees)
 - b. History of past windfall (downed branches or branch hangers)
 - c. Tree canopy dominated by cottonwood, willow, or maple trees.
 - d. Adjacent to lake waterfront
4. **Wind can be an evolving hazard** and hazardous conditions can occur after the start of the event. Event leaders should be aware of ongoing conditions and either stop activities or relocate to a safe location as conditions warrant.
5. **Consideration for Sites and Activities Following High Winds**
 - a. Use caution when entering the site, look up in the canopy for hanging branches, notify supervisors of any hazardous conditions.
 - b. Staff will follow-up and prioritize clean-up based on post-storm workload.

High Heat

Outdoor Heat Exposure Guidelines

If temperatures exceed thresholds listed below during volunteer activities volunteer leaders and staff should take the listed steps to prevent heat-related illness.

89+ degrees Fahrenheit (Washington State Department of Labor and Industry Standard)

- Ensure enough drinking water is readily available and encourage frequent consumption of water. One quart of drinking water per hour per volunteer. Portable water jugs are available for sites without drinking fountains or taps.
- Take frequent short breaks in a shaded or cooled area and encourage water consumption.
- Perform activities during the cooler parts of the day or in the shade when possible.
- Encourage the use of sunscreen.
- Rotate volunteers performing particularly physically demanding activities.
- Encourage removal of PPE (Personal Protective Equipment) during breaks.
- Be aware of the symptoms and steps to take in heat-related illness (Handout issued to all event leaders prior to heat season).
- Remain in proximity of each other to monitor for heat-related illness symptoms among all participants.
- Be aware of personal factors that might increase risk of heat related illness such as: age, medical conditions or medications being taken, water consumption, caffeine, or nicotine use.
- Be aware not all volunteers are acclimatized or aware of the challenges of physical activity in high heat and may need guidance with the above.

95+ degrees Fahrenheit

If temperature exceeds **95 degrees Fahrenheit** during volunteer activities, volunteer leaders and staff should cancel or reschedule any outdoor volunteer activities after 12:00 pm.

100+ degrees Fahrenheit

If temperature exceeds **100 degrees Fahrenheit** during volunteer activities, volunteer leaders and staff should cancel or reschedule all outdoor volunteer activities.

Modified from City of Kirkland Outdoor Heat Exposure Policy and WAC 296-62-095.

'Be Heat Smart' (Washington State Department of Labor and Industries):

<https://lni.wa.gov/safety-health/safety-training-materials/workshops-events/beheatmart>

Signs and Symptoms of Heat-Related Illness (CDC):

<https://www.cdc.gov/disasters/extremeheat/warning.html>

Resources from King County Emergency Management regarding extreme heat:

<https://kingcounty.gov/depts/emergency-management/hazards/extreme-heat.aspx>

Air Quality

Parks and Community Services uses air quality metrics from Airnow.gov to make air quality decisions about programs and services. Response plans are developed according to the Air Quality Index (AQI). In our region, wildfire smoke can increase the air quality pollutant called particulate matter which can impact health and is reflected in AQI.

Volunteer leaders are encouraged to use the online resource **AirNow.gov** from the U.S. Environmental Protection Agency (EPA) to determine AQI and learn more.

- If **AQI is 69 or higher**, volunteers are encouraged to take steps to reduce exposure. Respirator masks (N95s or KN95s) are encouraged to be worn.
- If **AQI is 101-150 (Unhealthy for Sensitive Groups)**, staff will contact volunteer participants to alert them to air quality hazard, provide resource links and encourage those in the sensitive group category to assess personal risk prior to participation.

Volunteer leaders are encouraged to reduce, modify, or cancel activities in this AQI range if they have any concerns. The following groups should reduce prolonged or heavy outdoor exertion:

- People with lung disease, such as asthma
 - Children and older adults
 - People who are active outdoors
- If the **Air Quality Index (AQI) is 151 (Unhealthy for all groups)** or higher during time of scheduled volunteer activities GKP will **cancel/postpone outdoor volunteer activities**.

Air Now (EPA Site): <https://www.airnow.gov/>

Puget Sound Clean Air Agency: <https://pscleanair.gov/>

What is AQI: <https://www.airnow.gov/aqi/aqi-basics/>

Adapted from Washington Administrative Code (WAC) 296-62-085 Wildfire Smoke

Lightning and Thunderstorms

1. Mandatory cancellation of outdoor volunteer activities

- a. If National Weather Service (NWS) issues a Severe Thunderstorm Warning for the Kirkland area for the time duration of volunteer activities.
- b. Should the above occur during activities, volunteers should be directed to take the closest substantial shelter and follow lighting action plan by onsite leader and further activities are cancelled.

2. Mandatory Action: Lightning Action Plan

- a. **“When thunder roars, go indoors”**
- b. **Should thunder/lightning occur during activities, volunteer leaders should cease activities immediately and find a safe, enclosed shelter.** Safe shelters include homes, offices, shopping centers, and hard-top vehicles with the windows rolled up.
- c. **Volunteer leaders should ensure all volunteers on the roster are accounted for, have safe shelter, OR have opted to end participation and safely left the site.**
- d. Duration of shelter should be at least 20 minutes from last visible lighting or audible thunder. This time resets with each occurrence of lighting/thunder.
- e. **If you are caught outside with no safe shelter nearby,** the following actions may reduce your risk:
 - i. Immediately get off elevated areas such as hills, mountain ridges, or peaks.
 - ii. Never lie flat on the ground. Crouch down in a ball-like position with your head tucked and hands over your ears so that you are down low with minimal contact with the ground.
 - iii. Never shelter under an isolated tree.
 - iv. Never use a cliff or rocky overhang for shelter.
 - v. Immediately get out of and away from ponds, lakes, and other bodies of water.
 - vi. Stay away from objects that conduct electricity (barbed wire fences, power lines, windmills, etc.).
 - vii. Separate: If you are in a group during a thunderstorm, separate from each other. This will reduce the number of injuries if lightning strikes the ground.

Modified from CDC Lightning and Outdoor Recreation

<https://www.cdc.gov/disasters/lightning/outdoorrecreation.html>

Winter and Cold Weather

1. Mandatory cancellation of outdoor volunteer activities:
 - a. If National Weather Service (NWS) issues a Winter Storm Warning or Wind Chill Warning for the Kirkland area for the time duration of volunteer activities.
2. Recommended Actions:
 - a. The Park department generally follows Lake Washington School District (LWSD) when determining program cancellations during the school year, particularly for cold weather, snow, and ice. Should LWSD cancel or delay it is likely that volunteer programming should also cancel.
 - b. Volunteer leaders should assess onsite conditions and cancel or modify activities based on conditions for safety of participants including hazardous access (ice on trails/roads) and/or activities with exposure to cold water/mud/frozen materials.

Flooding and Excessive Rainfall Events

1. Mandatory cancellation of outdoor volunteer activities
 - a. If National Weather Service (NWS) issues a Flash Flood or Flood Warning specific to Kirkland area waterways for the time duration of volunteer activities.
2. Recommended Actions: Volunteer leaders should use best judgment when operating during or following excessive rainfall event. Consider cancelling if excessive rainfall events are coupled with high winds as tree fall risk may increase. Avoid working on or under slopes, steep trails, flooded work areas, and stream/river corridors.

Communication and Weather

1. Communication Prior to Events or Ongoing Activities:

a. Cancellations prior to event date or activity

- i. During business hours (M-F, 8-5) if extreme weather results in a mandatory cancellation Staff will contact any registered event volunteers and volunteer leaders via email and phone as appropriate.
- ii. Outside of business hours if extreme weather results in a mandatory cancellation, event leaders should contact volunteers if they have contact information and post onsite signage explaining cancellation if no prior contact.

b. Pre-activity/pre-event communication should include:

- i. Specific to Volunteer Leaders:
 1. Identify who is in contact and who will be responsible to communicate with volunteers (Staff or Volunteer Leader).
 2. List any actions that volunteer leaders should take, for example: *plan for high outdoor temperatures or check current conditions and evaluate safety prior to event start time.*
- ii. Specific to volunteers:
 1. Direction to arrive as scheduled OR only arrive if they receive notification that event/activity is occurring.
 2. Outline decision making steps and timeline for cancellation. For example: *High winds are forecast for this event time. Should there be concern for safety due to wind, volunteer leaders will cancel 2 hours prior to event. Volunteers will be notified via email and/or onsite signage.*
 3. Encourage volunteers to arrive prepared for predicted conditions and encourage volunteers to check email prior to event. Include safety information as needed.
- iii. Specific to public:
 1. Staff may opt to use social media or other City communications channels to share notices of cancellation.

2. Communication day-of, during and after the event or activity

- a. Event leader may need to assess onsite conditions a few hours prior and/or during the event and decide on cancellation or relocation for activities.
- b. Event leaders should post signage indicating any cancellation or relocation as appropriate.
- c. Event leaders should contact Staff within 1-day, post-event if event is cancelled due to safety conditions.