

Model Lightning Emergency Action Plan

NOTE: This plan contains options that should be tailored to local circumstances, available equipment, and predetermined evacuation options. For locations with high attendance or lack of nearby shelter, it may be prudent to initiate actions earlier than suggested.

1. **Weather Watcher**: Designate a person or persons to monitor lightning and severe weather each day
 - 1.1. Weather watcher reviews available forecasts. NWS Advisories, Watches, and Warnings can be monitored at <http://www.weather.gov/insert local office identifier>. Thunderstorm and severe weather forecasts are also online at <http://www.spc.noaa.gov>.
 - 1.1.1. A “Watch” indicates that conditions are favorable for severe weather to develop.
 - 1.1.2. A “Warning” means that severe weather has been detected and may be imminent to the locale.
 - 1.2. If the weather watcher has questions about a storm, contact the National Weather Service in *(insert local office)* at *(insert office phone number)*.
 - 1.3. Weather watcher notifies staff of predicted weather hazards
 - 1.4. Staff notifies public of weather forecast (e.g. via information boards, PA announcements, multimedia notification)
 - 1.5. Weather watcher notifies staff when hazardous weather is imminent
 - 1.6. Weather watcher and other staff use available tools to monitor weather
 - 1.6.1. NOAA weather radio
 - 1.6.2. On-site lightning detector *(optional)*
 - 1.6.3. Smartphone application *(optional)*
 - 1.6.4. Commercial notification subscription *(optional)*
 - 1.6.5. Flash-to-bang rule: The observer begins counting once sighting a lightning flash. Counting is stopped at the sound of related thunder. The count is then divided by five (5) to determine the proximity in miles of the lightning strike. (5 seconds = 1 mile; 50 seconds = 10 miles, etc.).
2. **Threat Level 1**: Lightning detected within 20 miles
 - 2.1. Weather watcher notifies management and staff
 - 2.2. If it appears the thunderstorm is moving toward the site, or if a more organized thunderstorm or cluster of thunderstorms (supercells, squall lines, bow echoes) are headed for the site, a 30-minute lead time or more should be considered for protective actions. The weather watcher should attempt to estimate the speed and direction of the storm movement to determine when it will enter a 10 mile radius of the location.
 - 2.3. Protective actions
 - 2.3.1. Consider closing facilities that do not provide protection from lightning
 - 2.3.2. Notify the public of the lightning threat and recommended actions:
 - 2.3.2.1. Return to shore
 - 2.3.2.2. Prepare to leave and find shelter (identify appropriate shelter). No place outside is safe if lightning is in the vicinity. Partially enclosed vending areas and picnic shelters are not safe. If a substantial building is not available, fully-enclosed motor vehicles provide good shelter as long as occupants do not touch the metal framework during the thunderstorm. If no protection from lightning is available, direct patrons to stay away from the tallest objects (lifeguard stands, light poles, flag poles), metal objects (fences or bleachers), standing pools of water, and open areas.
 - 2.3.3. Consider initiating predetermined evacuation plans
 - 2.3.4. Ensure staff takes action to protect themselves

3. Threat Level 2: Lightning detected within 15 miles
 - 3.1. Weather watcher notifies management and staff
 - 3.2. Protective actions
 - 3.2.1. Consider closing facilities that do not provide protection from lightning
 - 3.2.2. Notify the public of threat and recommended actions:
 - 3.2.2.1. Exit the water
 - 3.2.2.2. Prepare to leave and find shelter (identify appropriate shelter). No place outside is safe if lightning is in the vicinity. Partially enclosed vending areas and picnic shelters are not safe. If a substantial building is not available, fully-enclosed motor vehicles provide good shelter as long as occupants do not touch the metal framework during the thunderstorm. If no protection from lightning is available, direct patrons to stay away from the tallest objects (lifeguard stands, light poles, flag poles), metal objects (fences or bleachers), standing pools of water, and open areas.
 - 3.2.3. Initiate predetermined evacuation plans
 - 3.3. Ensure staff takes action to protect themselves
4. Threat Level 3: Lightning detected within 10 miles
 - 4.1. Weather watcher notifies management and staff
 - 4.2. Protective actions
 - 4.2.1. Close facilities that do not provide protection from lightning
 - 4.2.2. Notify the public of imminent threat and to take recommended action:
 - 4.2.2.1. Exit the water
 - 4.2.2.2. Leave and find shelter (identify appropriate shelter). No place outside is safe if lightning is in the vicinity. Partially enclosed vending areas and picnic shelters are not safe. If a substantial building is not available, fully-enclosed motor vehicles can provide shelter as long as occupants do not touch the metal framework during the thunderstorm. If no protection from lightning is available, direct patrons to stay away from the tallest objects (lifeguard stands, light poles, flag poles), metal objects (fences or bleachers), standing pools of water, and open areas.
 - 4.2.3. Implement predetermined evacuation plans
 - 4.2.4. Ensure staff takes action to protect themselves
5. Lightning Injury Response
 - 5.1. Ensure scene safety (victims do not carry an electrical charge and can be touched)
 - 5.2. Follow local protocols for trauma injury and triage. If necessary, safe, and appropriate, move the victim to a safe place away from the threat of another lightning strike
 - 5.3. Summon an ambulance as needed according to local protocols
 - 5.4. CPR and/or AED may be necessary
 - 5.5. Heart irregularities, shock, or sudden loss of consciousness are possible. Keep the conscious victim calm and monitor closely
6. All Clear: The weather watcher will continue to monitor the proximity of thunderstorms and utilize local observations to make an informed decision, determining the appropriate time to recommend reopening outdoor facilities. Management may then allow for normal activities to resume after 30 minutes of no detected lightning strikes within a 10 mile radius of the site. Notify the public that outdoor activities can resume.