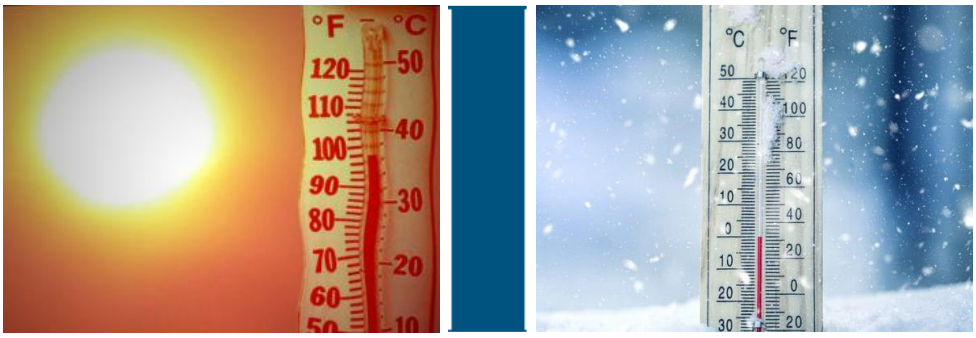
Lovejoy Independent School District
Weather Guidelines



A PREPAREDNESS GUIDE

Updated February 2022

Lovejoy Independent School District Weather Guidelines

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Lovejoy Independent School District Weather Guidelines

Part of daily routine in schools is to monitor the weather in order to plan for student's playtime, field trips and educational activities. The guidelines discussed below are based on the National Weather Service and will provide information to teachers and staff as they plan for educational and recreational activities throughout the school day. Staff are encouraged to use apps and/or check websites for current weather conditions when making decisions regarding outdoor activities for students. Campus Principals and Nurses will make the final decision for activities during the school day.

The following section applies to recess, PE classes, field trips, and all other outside activities. Extracurricular activities, including athletics and fine arts are addressed in a later section.

HEAT GUIDELINES

Heat Index Chart (in Fahrenheit %)

Air Temperature (F)	Relative Humidity (Percent)												
	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	100
80-83	80	80	81	81	82	82	83	84	84	85	86	86	87
84-89	83	84	85	86	88	89	90	92	94	96	98	100	103
90-93	91	93	95	97	100	103	105	109	113	117	122	127	132
94-99	97	100	103	106	110	114	119	124	129	135			
100-103	109	114	118	124	129	130							
104	119	124	131	137									

COMFORTABLE Outdoor Play > 30 min

CAUTION Outdoor Play 20 min or less

DANGER No Outdoor Play

- Keep in mind that temperature and humidity combined determines the possible risk of heat related injury for students.
- When in the yellow zone, start with low level activity and increase as tolerated for 20 minutes or less.
- Students should drink plenty of water before, during and after exercise.
- Students should be allowed to take frequent water breaks and rest as needed.

Regardless of the temperature, if a parent requests that his/her child not participate in physical activity due to the heat, the request is to be granted.

Heat Related Injury Information

Heat Exhaustion	Heat Stroke
Symptoms: • Normal body temperature • Pale and clammy skin, profuse perspiration • Rapid and weak pulse • Tiredness, weakness, headache, nausea	**Symptoms:** • High temperature • Hot, flushed, dry skin • Rapid and strong pulse • May be unconscious
Steps to Follow: 1. Have person lay down in a cool, quiet place. 2. Loosen clothing. Remove if tight or heavy. 3. Call school nurse. 4. Apply cool, wet cloths or sponge w/ cool water. 5. Give sips of cold water. 6. Notify parent. 7. Call EMS (911) if condition worsens or person shows signs of shock.	**Steps to Follow:** 1. Call school nurse/EMS (911) 2. Place in a cool, quiet place. 3. Remove outer clothing. 4. Apply cold, wet cloths or sponge w/ cold water. 5. Take temperature. 6. If conscious, give sips of cold water. 7. Notify parent.

COLD WEATHER GUIDELINES

Cold exposure can be uncomfortable and even become life threatening. Conditions created by cold exposure include frostbite and hypothermia. Wind chill can make activity uncomfortable and can impair performance when muscle temperature declines. Frostbite is the freezing of superficial tissues, usually of the face, ears, fingers, and toes. Hypothermia, a significant drop in body temperature, occurs with rapid cooling, exhaustion and energy depletion. The resulting failure to the temperature regulating mechanisms constitutes a medical emergency.

Hypothermia frequently occurs at temperatures above freezing. A wet and windy 30-50 degree exposure may be as serious as a subzero exposure. For this reason Lovejoy ISD uses the wind-chill factor not the ambient temperature. Wind speed interacts with ambient temperature to significantly increase body cooling. When the body and clothing are wet (whether from sweat, rain, snow, or immersion), the cooling is even more pronounced due to evaporation of the water held close to the skin by the wet clothing.

Wind-Chill Factor Chart (in Fahrenheit)

Air Temperature (F)	Wind Speed in mph								
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	>40
>40	40	36	34	32	30	29	28	28	27
35-39	35	31	27	25	24	23	22	21	20
30-34	30	25	21	19	17	16	15	14	13
25-29	25	19	15	13	11	9	8	7	6
20-24	20	13	9	6	4	3	1	0	-1
10-19	10	1	-4	-7	-9	-11	-12	-14	-15

COMFORTABLE Outdoor Play > 30 min

CAUTION Outdoor Play 20 min or less

CAUTION Outdoor Play 15 min or less

DANGER No Outdoor Play

- Keep in mind that air temperature and wind speed combined will determine the length of outdoor play during cold conditions.
- Students should be dressed properly.

OZONE GUIDELINES

The Air Quality Index, or AQI, is a scale used to report actual levels of ozone and other common pollutants in the air. The higher the AQI value, the greater the health concerns. Shown below are the recommended guidelines set for each ozone level by the National Environmental Protection Agency concerning outdoor activity. Each teacher, coach, band director or other employee taking children out of the building is responsible for checking current ozone levels and will be responsible for abiding by Lovejoy ISD guidelines. See below for resources to obtain this information.

The following precautions should be observed on all campuses:

Air Quality Index Chart

Air Quality Index (AQI) Values	Levels of Health Concern	Colors
When the AQI is in this range:	*..air quality conditions are:*	*...as symbolized by this color:*
0-50	Good	Green
51-100	Moderate	Yellow
101-150	Unhealthy for Sensitive Groups	Orange
151 to 200	Unhealthy	Red
201 to 300	Very Unhealthy	Purple
301 to 500	Hazardous	Maroon

Index Values / Descriptors / Cautionary Statements for Ozone

All students may participate in outdoor activity.

All students may participate in outdoor activity; however, students with known or suspected sensitivities should be limited to 20 minutes or less of outdoor recess/physical education.

Limit outdoor activity to low levels for no more than 20 minutes for all students and less than 15 minutes for students with known or suspected sensitivities

All students should be kept indoors.

LIGHTNING GUIDELINES

When Thunder Roars, Go Indoors!

Within the United States, the National Severe Storms Laboratory (NSSL) estimates more than 100 fatalities and 400-500 injuries requiring medical treatment occur from lightning strikes every year. While the probability of being struck by lightning is extremely low, the odds are significantly greater when a storm is in the area and the proper safety precautions are not followed. Lightning often strikes outside of rain and may occur as far as 10 miles away from any rainfall.

If you hear thunder, even a distant rumble, immediately move all students back into the school building. If you are off-campus, seek a fully enclosed building with wiring and plumbing to provide the best protection. Sheds, picnic shelters, tents or covered porches do not protect you from lightning. If a sturdy building is not nearby, get into a hard-topped metal vehicle (like a bus) and close all the windows. Stay inside until 30 minutes after the last rumble of thunder.

Lovejoy ISD has installed the Earth Network Weather Station at Lovejoy High School. The LHS Weather Station: (1) provide the most accurate, real-time weather data for our staff; (2) includes Earth Network's advanced in-cloud lightning monitoring and detection; and (3) contains an audible outdoor warning horn. The LISD Weather Station (LISD-WS) works to protect our students, directors, coaches, staff and spectators from Lightning:

- ✓ When there is a thunderstorm "warning" or "watch" posted by the NWS for the area, the LISD-WS will alert the LISD personnel via text message.
- ✓ When lightning occurs within 30 miles of the LISD-WS, it will notify via text message that lightning has occurred in the "Advisory Area"
- ✓ If lightning is moving toward the LISD-WS and lightning occurs within 15 miles, it will notify via text message that lightning has occurred in the "Caution Area".
- ✓ If the storm is still progressing toward Lovejoy and lightning occurs within 10 miles of the LISD-WS, it will notify via text message that lightning has occurred in the "Warning Area". **The LISD-WS warning system (Horn) will sound indicating lightning detected within the "Warning Area".**

For more information on the Earth Network System, visit their website at www.earthnetworks.com

Once lightning has been detected, the "30 Minute Rule" takes effect. When the LISD-WS does not detect a strike in the "Warning Area" for 25 minutes, an alert text will be sent. If in the remaining 5 minutes, there is no more detected lightning in the "warning Area" (within 10 miles), outside activities is allowed to resume.

Remember, if you are outdoors and can hear thunder, you are in danger of being struck by lightning. If you are off-campus, use the **"Flash to Bang"** method to estimate the distance between you and a lightning flash. The Flash to Bang method is the most reliable, easiest and most convenient way to estimate how far away lightning is occurring. Thunder always accompanies lightning, even though its audible range can be diminished to background noise in the immediate environment, and its distance from the observer. The audible range of thunder is about 810 miles. The Flash to Bang method is based upon the premise of the fact light travels faster than sound.

How to use Flash to Bang

Once lightning is sighted (flash), count the number of seconds until the thunder (bang) is heard; divide by 5 to obtain how far away (in miles) the lightning is occurring. Example: If a person counts 15 seconds between seeing the flash and hearing the bang, 15 divided by 5 equals 3, therefore, the lightning flash is approximately three-miles away. Outside activities is suspended until the Flash to Bang reaches 30 seconds. This indicates that the lightning is at the six mile range. Lightning awareness should be increased with the first flash of lightning or the first clap of thunder**, no matter how far away.** The important aspect to monitor is how far away the lightning is occurring and how fast the storm is approaching, relative to the distance to safe shelter.

Additional lightning guidelines for extracurricular activities are included in the Extracurricular Activities section.

TORNADO WATCHES & WARNINGS

Lovejoy ISD guidelines for tornado watches and warnings issued by the National Weather Service (NWS):

Tornado Watch – (a tornado watch occurs when weather conditions exist which make a tornado possible)

When the NWS issues a tornado watch, the District will do the following:

- Continue a normal school day schedule.
- Move recess and other scheduled outdoor activities to inside the building.
- Ensure that a staff member in each building monitors official weather bulletins and local radar.
- Principal should obtain a Nextel Radio to communicate with Central Administration.
- Consider the impact of storm fronts and squall lines on the transportation of students; transportation times may be altered to avoid transporting students during a thunderstorm when a tornado watch is in effect.
- Consider cancelling or postponing after-school activities and athletic events if the watch is issued prior to the start of these activities.
- Designate a staff member to monitor weather bulletins and local radar if a watch is issued during after-school activities and athletic events (these events may be halted at the discretion of the on-site supervisor).

Tornado Warning – (presence of radar-indicated cloud rotation)

When the NWS issues a tornado warning for any geographical area of the Lovejoy ISD, the District will do the following:

- Issue the tornado warning alert/alarm/ announcement.
- Move people to designated shelter areas.
    - When sent to the designated areas, teachers should carry their class roll, and identify each student present in the area.
    - Students are to be seated as soon as possible.
    - When directed by the area supervising staff member, everyone should take to a crouched position, back facing the wall (hands interlocked over the head, elbows to knees)
- Continuously monitor weather bulletins and local radar.
- Suspend all routine operations until the warning has expired (this may include delay of the starting and ending of the school day).
- If a tornado appears so quickly that the above action cannot be followed, all occupants should seek cover at once. For those inside the building, heavy furniture provides good protection. Interior closets also provide shelter. Once in the sheltered area, persons should assume the protective position.
- Anyone caught outside should not attempt to run to the building unless he or she is absolutely sure to arrive before the tornado strikes. Instead, the person should take shelter by assuming the protective position on the ground. If a ditch, creek or other depression is close, the person should take shelter in it.

Recently, the NWS has changed many of their long-standing practices and protocols as it pertains to tornado warnings. Specifically, the NWS is no longer issuing tornado

warnings for an entire county. Instead, warnings are issued for geographic areas in the probable path of a tornado. Also, the NWS is no longer only issuing warnings based on the visual sighting of an actual tornado or funnel cloud. Instead, the NWS will issue a warning at the presence of radar-indicated cloud rotation. Since radar-indicated cloud rotation is more prevalent than an actual tornado, we should expect tornado warnings to be more frequent than in the past.

We urge parents to refrain from coming to school to pick up their child during a tornado warning. The process of checking a child out of school diverts the attention of staff when their presence is needed to perform other important tasks during a warning.

Finally, children take their emotional cues from the caring adults in their lives. Please discuss with your students what should be done during periods of threatening weather. Severe weather watches and warnings are a common aspect of living in North Central Texas, and children are able to learn to calmly and deliberately respond to tornado watches and warnings.

ONLINE WEATHER RESOURCES FOR STAFF

Mobile Apps:
DFW Weather – provides current temperature, humidity and radar
AIRNow – provides current ozone levels for your zip code

Websites:
http://www.tceq.state.tx.us/cgi-bin/compliance/monops/select_curlev.pl
provides numeric value of current ozone levels on a Texas map to correlate with chart above
www.nbc5i.com
www.wfaa.com/weather

EXTRACURRICULAR ACTIVITIES

HEAT INDEX WEATHER GUIDELINES

Practice or competition in hot and humid environmental conditions poses special problems for student-athletes. Heat stress and resulting heat illness is a primary concern in these conditions. Although deaths from heat illness are rare, constant surveillance and education are necessary to prevent heat-related problems. The following practices should be observed. Coaches and Directors are required to understand and comply with all UIL rules that govern their activity, including dates and timelines for practices, length of practices, and any other specific regulations or requirements for the activity. If there is a conflict between the UIL rules and the LISD Guidelines, the most restrictive and safest for students is to be followed.

A. Risk Reductions

1. Encourage proper education regarding heat illnesses (for students, coaches, directors, parents, medical staff, etc.) Education about risk factors should focus on hydration needs; acclimatization, work/rest ratio, signs and symptoms of exertional heat illnesses, treatment, dietary supplements, nutritional issues, and fitness status.
2. Assure that onsite staff has authority to alter work/rest ratios, practice schedules, amount of equipment, and withdrawal of individuals from participation based on environment and/or student's medical condition.

B. General Guidelines

1. An initial complete medical history and physical exam.
2. Gradual acclimatization of the student to hot/humid conditions is a must. We advise that student should gradually increase exposure to hot and/or humid environmental conditions over a period of seven to 10 days to achieve acclimatization.
3. Clothing and protective gear can increase heat stress. Dark colors absorb solar radiation, clothing and protective gear interfere with the evaporation of sweat and other avenues of heat loss. During acclimatization process, students should practice in T-shirts, shorts, socks and shoes (helmets are allowed in football).
4. Heat Index or actual temperature at the start of practice determines the guidelines used for that practice. Practices will be shortened due to a rise in the heat index or actual temperature.
5. To identify heat stress conditions, measurements of environmental conditions will be taken daily at the time of practice and at the location of the practice. LISD trainers will use an Earth Network Thermal Indicator to monitor the heat index and the actual temperature.

   The Lovejoy ISD has installed the Earth Networks Weather Station at Lovejoy High School. The LHS Weather Station will provide the most accurate, real-time weather data for our staff. The system includes Earth Network's advanced in-cloud lightning monitoring and detection and contains an audible outdoor warning horn to keeping everyone informed of local weather conditions. The onsite system keeps students, staff, and community members safe with more lead-time

for a weather event compared to freely available alerts. For more information on the Earth Networks System, visit their website at www.earthnetworks.com.

C. Specific Heat Guidelines

Lovejoy ISD Training Staff will determine, in coordination with data from Lovejoy's weather station, the proper heat index levels for safe practices and games. These guidelines apply to High School and Middle School extracurricular activities.

1. **Heat index of less than 100 degrees:**
   Unrestricted access to water at all times. Asthmatic students may remove themselves from workout without penalties or repercussions. Water breaks every 30-45 minutes.

   RESTRICTIONS: NONE

2. **Heat Index of 100-105 degrees:**
   Unrestricted access to water at all times. Asthmatic students may remove themselves from workout without penalties or repercussions.

   RESTRICTIONS:
   - After 20 minutes of participation each student will have a five (5) minute break.
   - During a two practice day, the total hours of exposure is not to exceed 3 hours.

   Football
   - Full Pads (outside) - Helmets removed at any time the athlete is not actively participating. Remove helmets and shoulder pads during conditioning. Limit practice to 1½ hours or follow UIL requirements, whichever is less.
   - Shells (outside) - Helmets removed at any time the athlete is not actively participating. Remove helmets and shoulder pads during conditioning. Limit practice to two (2) hours or follow UIL requirements, whichever is less.

   Marching Band – Drum Line – Color Guard – Cheer – Drill Team:
   - In performance uniform, water breaks every 30 minutes with break duration of 5 minutes. In shorts and shirts, water breaks every 45 minutes with break duration of 5 minutes.

   Other Outdoor Activities
   - Cross Country & Track: Stay on campus, limit runs to ½ length. Practice not to exceed two (2) hours or follow UIL requirements, whichever is less. Long distance runners must be directly supervised at all times.
   - Soccer – Tennis – Golf – Baseball – Softball: Practice not to exceed two (2) hours or follow UIL requirements, whichever is less.
   - Athletes can have water at any time during workout.

3. **Heat Index of 106-110 degrees:**
   Unrestricted access to water at all times. Asthmatic students may remove

themselves from workout without penalties or repercussions.

RESTRICTIONS:

- After 20 minutes of participation each student will have a five (5) minute break.
- For every 45 minutes of exposure there must be 15 minutes of no activity, indoors or in the shade, with water. (Example: 20 minutes of practice / 5 minute break / 20 minutes of practice / 15 minutes (off field/court) / 20 minutes / 5 minute break – 5 minutes conditioning)
- During a two practice day, the total hours of exposure is not to exceed 2½ hours.

High School Football:

- No Full Pad practices (outside) / Shell Practice Shorts & Shoulder Pads Only. Helmets removed at any time the athlete is not actively participating. Remove helmets and shoulder pads during conditioning. Limit practice to 1½ hours or follow UIL requirements, whichever is less.

Middle School Football

- Shorts, T-Shirts, Light Colors, no padded equipment (outside). 30 minute exposure / 15 minute breaks in shade or indoors, all conditioning indoors.

Marching Band – Drum Line – Color Guard – Cheer – Drill Team:

- In performance uniform, follow restrictions above. Outside practices not to exceed 1 hour 45 minutes or follow UIL requirements, whichever is less.
- In shorts and shirts, water breaks every 30 minutes with break duration of 10 minutes. Outside practices not to exceed 2 hour or follow UIL requirements, whichever is less.

All Other Outside Activities

(Baseball, Softball, Cross Country/Track, Golf, Soccer & Tennis)

- No extraneous gear, 1½ hour workout or follow UIL requirements, whichever is less.

4. Heat Index of 111-117 degrees:

Unrestricted access to water at all times. Asthmatic students may remove themselves from workout without penalties or repercussions.

RESTRICTIONS:

- After 20 minutes of participation each student will have a 10 minute break, in shade with water.
- For every 40 minutes of exposure there must be 15 minutes of no activity, indoors or in the shade, with water.

High School Football

- No Helmets - Walk through **ONLY**- 1.5 hours of total exposure - **NO Conditioning.**

Middle School Football

- No Helmets - Walk through **ONLY**- 1 hour of total exposure - **NO Conditioning**.

Marching Band – Drum Line – Color Guard – Cheer – Drill Team:

- Shorts and shirts ONLY. Outside practices not to exceed 1.5 hours of total exposure.

All Other Outside Activities
(Baseball, Softball, Cross Country/Track, Golf, Soccer & Tennis)

- No extraneous gear, 1 hour workout or follow UIL requirements, whichever is less.

5. **Heat Index Greater than 118 degrees:**
   RESTRICTIONS:
   - **ATHLETIC or FINE ARTS DIRECTOR APPROVAL REQUIRED ALL HIGH SCHOOL & MIDDLE SCHOOL ACTIVITIES**

EXTRACURRICULAR ACTIVITIES

COLD WEATHER GUIDELINES

Clothing is one of the most important parts of keeping the athlete's body war. Athletes should dress in layers and try and stay dry. Layers can be added or removed depending on temperature, activity and wind chill. Athletes should layer themselves with wicking fabric next to the body, followed by lightweight pile or wool layers for warmth. Athletes should use a wind block garment to avoid wind chill during workouts. Heat loss from the head and neck may be as much as 50% of total heat loss; therefore the head and neck should be covered during cold conditions. Other extremities should be covered at all times to protect from the wind chill. Coaches and Directors are required to understand and comply with all UIL rules that govern their activity, including dates and timelines for practices, length of practices, and any other specific regulations or requirements for the activity. If there is a conflict between the UIL rules and the LISD Guidelines, the most restrictive and safest for students is to be followed.

A. Cold Exposure:

- Breathing of cold air can trigger asthma attack (bronchospasm).
- Coughing, chest tightness, burning sensation in throat and nasal passage.
- Reduction of strength, power, endurance, and aerobic activity.
- Core body temperature reduction, causing reduction of motor output.

B. Cold Recognition:

- Shivering, a means for the body to generate heat.
- Excessive shivering contributes to fatigue, loss of motor skills.
- Numbness and pain in fingers, toes, ears, and exposed facial tissue.
- Drop in core temperature; athlete exhibits sluggishness, slowed speech, disoriented.

C. Notification of Temperature:

- LISD Staff will obtain weather report from LISD-Weather Station (i.e. Earth Networks).
- The weather report will be taken at 7:00 AM for morning activities, and 3:00 PM for afternoon activities.
- The wind chill data will determine which protocol will be followed.
- Wind chill readings will be taken before groups leave for traveling to activities, and an hour-by-hour report will guide our decisions for the event.

D. Enforcement of Policies:

- Head Coach / Director / Trainers / Campus Administration will monitor time of student exposure.

E. Cold Weather Guidelines for Activities:

1. **Wind Chill Factor 33 to 35 degrees (W/Precipitation):**
   - 35 minutes of exposure/20 minutes inside (may return outside after 20 minutes).
   - Dry clothing (socks, gloves).

- Students must be dressed appropriate with extremities covered.

2. **Wind Chill Factor 32 Degree or Below (W/Precipitation):**
   - All activities will be inside - No outside exposure.

3. **Wind Chill Factor under 31 to 32 degrees (Dry):**
   - 45 minutes exposure/ 15 minutes inside. Athletes must be in warm-ups with extremities covered.

4. **Wind Chill Factor 26 to 30 Degree (Dry):**
   - 30 minutes of total exposure to chill factor, 15 minutes inside for re-warming, warm-ups must be worn at all times, extremities covered.

5. **Wind Chill Factor of 25 degrees or Below:**
   - No outside activity - All work must be inside.

F. Cold Weather Guidelines for Events:
Events to be postponed due to cold weather will be determined on a case by case basis by the Athletic Director or Fine Arts Director. Postponed activities to be re-scheduled will be determined by the Head Coach or Director of activity in consultation with Athletic or Fine Arts Director. An event date will be considered for rescheduling if the wind chill is below 25.

G. School Day Cancellation (full day):
No travel or practice unless approved by the Athletic or Fine Arts Director or the Principal.

H. School Day Early Dismissal (deteriorating weather conditions):
No travel or practice unless approved by the Athletic or Fine Arts Director or the Principal. If approved, practices should be completed prior to worsening weather that creates hazardous and unsafe driving conditions for teenage drivers.

EXTRACURRICULAR ACTIVITIES

LIGHTNING GUIDELINES

Lightning is the most consistent and significant weather hazard that may affect interscholastic activities. Prevention should begin long before any outside practices or events are held. The following steps are recommended by the NCAA and NSSL to mitigate lightning hazards.

A. Chain of Command

- ✓ Event Administrator / Athletic Trainer / District Administrator
- ✓ Game Official / Head Coach / Director / Campus Administrator

The Event Administrator (and the Athletic Trainer for athletic events) will implement the lightning guidelines and may activate the safety plan by suspending an event. The Event Administrator assumes the responsibility as spokesperson to participating schools, teams, school administrators, game officials, public address announcer and news media.

B. Designate a Weather Watcher

The Head Coach / Director / Campus Administrator / Athletic Trainer will actively obtain weather reports the day of the event. During the event, the onsite Event Administrator / Campus Administrator / Athletic Trainer will actively monitor the weather. The event Weather Watcher will disseminate the information within the chain of command and the information will be shared as needed throughout the District.

C. Monitor Local Weather Forecasts

Be aware of the National Weather Service issued (NWS) thunderstorm “watch” and “warning” as well as the signs of thunderstorms developing nearby.

- ✓ A “watch” means conditions are favorable for severe weather to develop in an area.
- ✓ A “warning” means that severe weather has been reported in an area and for everyone to take proper precautions.

All onsite representatives in the “Chain of Command” shall monitor the local weather during a NWS watch and warning in addition to the data provided by the Earth Network Weather Station at Lovejoy High School.

The LISD Weather Station (LISD-WS) was installed to provide an added layer of protection for students, staff and spectators from lightning and other weather related watches and warnings:

- ✓ When there is a thunderstorm “warning” or “watch” posted by the NWS for the area, the LISD-WS will alert the athletic trainers, coaches, directors and district/campus staff via text message.
- ✓ When lightning occurs within 30 miles of the LISD-WS, it will notify via text message that lightning has occurred in the “Advisory Area”
- ✓ If lightning is moving toward the LISD-WS and lightning occurs within 15 miles, it will notify via message that lightning has occurred in the “Caution Area”.

- ✓ If the storm is still progressing toward Lovejoy and lightning occurs within 10 miles of the LISD-WS, it will notify via text message that lightning has occurred in the "Warning Area". **The LISD-WS warning system (Horn) will sound indicating lightning detected within the "Warning Area".**
- ✓ When lightning is detected in the "Warning Area", all students and staff shall immediately move from the outside venue and return to their designated safe shelters. (If a public event is occurring, the public address announcer will make an announcement to spectators, visitors, and/or guests to seek safe shelter, followed by directions on where to go.)
- ✓ Once lightning has been detected, the "30 Minute Rule" takes effect. When the LISD-WS does not detect a strike in the "Warning Area" for 25 minutes, an alert text will be sent to the athletic trainers, coaches, directors and district/campus staff. If in the remaining 5 minutes, there is no more detected lightning in the "Warning Area" (within 10 miles), the event, competition, or practice is allowed to resume.

While in a lightning delay, the LISD-WS website can be accessed by Lovejoy staff to monitor real-time radar and lightning data to inform and make the appropriate recommendations to spectators and officials.

D. Safe Locations

1. Primary Location

Any building normally occupied or frequently used by people. (Example: building with plumbing and/or electrical wiring that acts to electrically ground the structure.) Avoid using shower facilities for safe shelter and do not use the showers plumbing facilities during thunderstorms. When inside a building avoid use of the telephone, taking a shower, washing your hands or any contact with conductive surfaces with exposure to the outside, such as metal doors or windows frames, electrical wiring, telephone wiring, cable TV wiring, plumbing, etc.

2. Secondary Location

In the absence of a sturdy, frequently inhabited building, any vehicle or school bus with a hard metal roof (not a convertible or golf cart) with closed windows can provide a measure of safety. A vehicle is certainly better than remaining outdoors. It is not the rubber tires that make a vehicle a safe shelter, but the hard metal roof, which dissipates the lightning strike around the vehicle. **DO NOT TOUCH THE SIDES OF THE VEHICLE.**

E. Lightning Safety Rules-Suspension & Resumption of Events and Activities.

The key to a lightning safety plan of action is knowing the answer to the following two questions:

1) How far away am I (or the group for whom I am responsible) from a safe location?
2) How long will it take me (and/or my group) to get to the safe location?

The questions need to be answered before lightning storms threaten. By knowing the answer to the above questions the coach / director / trainer / administrator will

greatly increase the chance of not having a lightning strike victim. In the event the LISD Weather Station (LISD-WS) is not accessible or there is not a lightning detection system for monitoring, staff will use the "30-30" rule.

1. **The "30-30" Lightning Safety Rules: Event Suspension**
   To estimate the distance between you and a lightning flash, use the "**Flash to Bang"** method. The "Flash to Bang" method is the most reliable, easiest and most convenient way to estimate how far away lightning is occurring. Thunder always accompanies lightning, even though its audible range can be diminished to background noise in the immediate environment, and its distance from the observer. The audible range of thunder is about 810 miles. The premise upon which the Flash to Bang method is based is on the fact that light travels faster than sound, which travels at a speed of approximately one mile every 5 seconds.

2. **How to use Flash to Bang**
   Once lightning is sighted (flash), count the number of seconds until the thunder (bang) is heard; divide by 5 to obtain how far away (in miles) the lightning is occurring. Example: If a person counts 15 seconds between seeing the flash and hearing the bang, 15 divided by 5 equals 3, therefore, the lightning flash is approximately three-miles away. The event is suspended until the Flash to Bang reaches 30 seconds. This indicates that the lightning is at the six mile range. Lightning awareness should be increased with the first flash of lightning or the first clap of thunder**, no matter how far away.** The important aspect to monitor is how far away the lightning is occurring, and how fast the storm is approaching, relative to the distance to safe shelter.

3. **"30-30" Safety Rule: Resumption of the Event**
   The event can continue only when lightning or thunder **has not** been detected for 30 minutes. Every time lighting or thunder is detected within 30 minutes, the **clock restarts.**

4. **Speed of Texas Storms**
   A typical thunderstorm can travel up to 30 miles per hour. Experts believe 30 minutes allows for thunderstorms to be about ten to twelve miles from the area. This minimizes the probability of a nearby, and dangerous, lightning strike.

5. **Bolt out of the Blue**
   Evidence of blue sky in the local area or lack of rainfall are not adequate reasons to breach the 30-Minute Suspension Rule. Lightning can strike far from where it is raining, even when the clouds begin to clear and show evidence of blue sky.

F. First Aide

People who have been struck by lightning do not carry an electric charge Therefore, the first responder is safe to begin first aide procedures. When possible, move the victim to a safe area. Activate EMS as soon as possible, and remember that lightning strike victims who show signs of cardiac or respiratory arrest need emergency help quickly. Prompt first aid and CPR has been highly effective for the survival of lightning strikes.

G. Public Address Announcement

Hazardous lightning has been monitored in the immediate area and this sporting event has been temporarily suspended. All team members have been advised to seek shelter in the designated safe shelter: **WSMS Home & Visitor Locker Rooms.** This suspension will last a minimum of 30 minutes.

All spectators are advised to leave the stadium bleachers at this time. Stadium seating is an unsafe location for you to remain during the lightning storm. **Spectators are asked to seek shelter in their vehicles are the WSMS Main and Aux. Gyms**. This suspension will last a minimum of 30 minutes

Once the LISD-Weather Station indicates all is clear, the stadium announcer will make the following announcement:

The inclement weather has pasted this area and it is now safe to return to play. There will be a short period to allow both teams to warm up for the return to play procedures.

- ❖ This safety announcement will be placed in both press box areas (LHS & WSMS) for stadium announcer to access.

H. Safe Shelter for Participating Teams & Fans

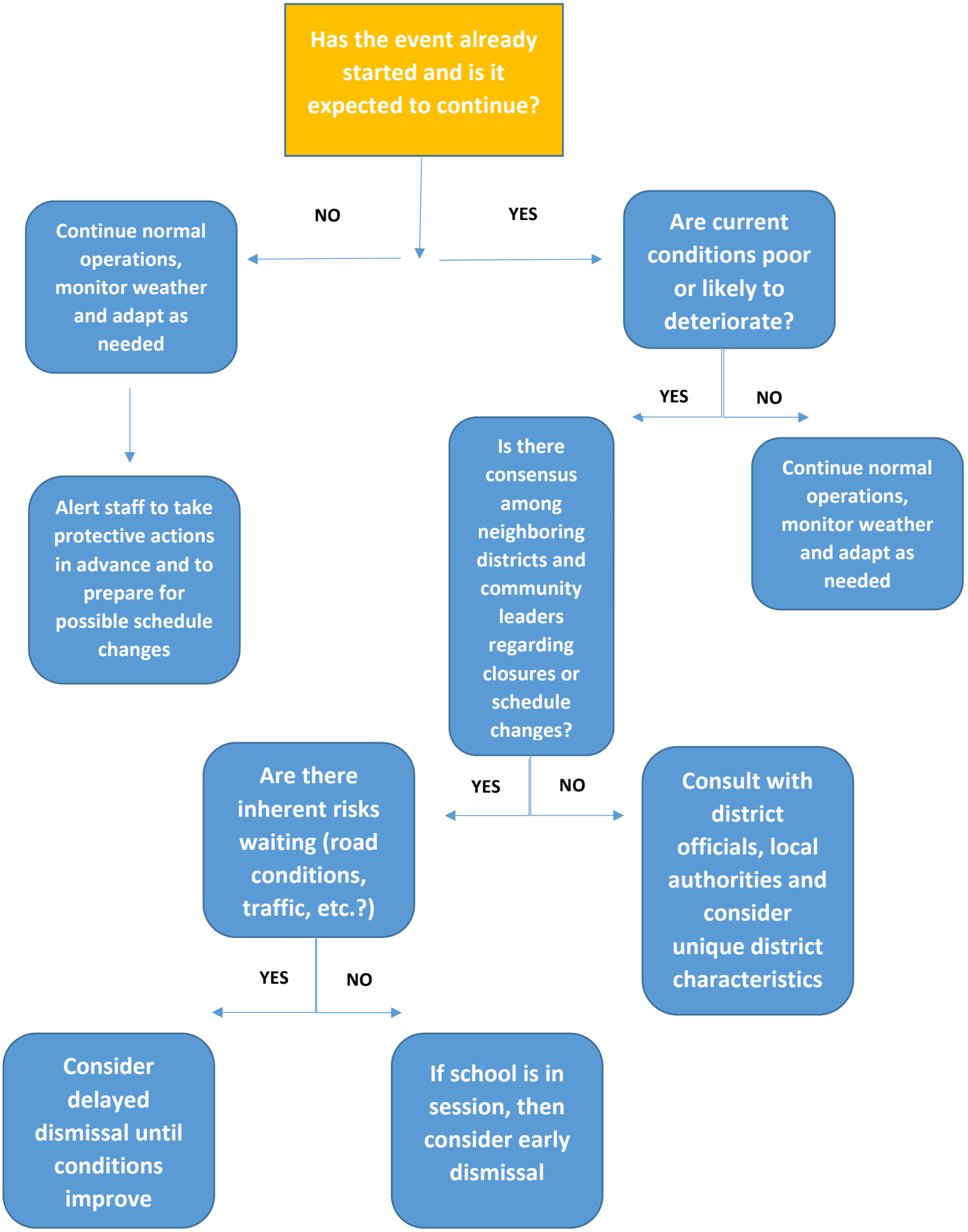
1. High School Stadium & Fields

- Home Team – Home Locker Room
- Visiting Team – Visiting Team Locker Room
- Patrons – Vehicles / LISD Athletic Multi-Purpose Building Turf Area / LHS Main Gym-Aux. Gym

2. Willow Springs School Stadium

- Home Team – Home Locker Room
- Visiting Team – Visiting Team Locker Room
- Patrons – Vehicle/ WSMS Main Gym-Aux. Gym

SEVERE WEATHER DECISION FLOWCHART



NOAA's National Weather Service

Heat Index

Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution | Extreme Caution | Danger | Extreme Danger

Classification	Heat Index	Effect on the body
Caution	80°F - 90°F	Fatigue possible with prolonged exposure and/or physical activity
Extreme Caution	90°F - 103°F	Heat stroke, heat cramps, or heat exhaustion possible with prolonged exposure and/or physical activity
Danger	103°F - 124°F	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity
Extreme Danger	125°F or higher	Heat stroke highly likely

Source: NOAA.gov

Excessive Heat Watch Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer
- ☐ 2. Communicate to all staff to monitor students and staff that may exhibit signs of heat stress Staff should check emergency supplies and student rosters
- ☐ 3. Consider limiting outdoor activities such as recess, athletic and band practice during periods of excessive heat
- ☐ 4. Instruct staff to use extreme caution when working outdoors and to hydrate regularly
- ☐ 5. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 6. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 7. Prepare a printed copy of student rosters and contact information in the event of a utility failure
- ☐ 8. Closely monitor facility temperatures and equipment. Be prepared for possible HVAC failures which may require schedule/operational changes
- ☐ 9. Provide time and places for water distribution for students and staff
- ☐ 10. Notify support staff to hydrate and monitor each other for signs of heat stress
- ☐ 11. Continue to monitor the weather closely—conditions could lead to wild fires

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning excessive heat
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Review emergency procedures and protective actions related to extreme heat
- ☐ 4. Be prepared for additional time for restroom breaks and hydration for students. Be aware of students with special needs and their reaction to extreme heat
- ☐ 5. Be prepared with materials to occupy students in the event outdoor schedules are modified or activities are curtailed
- ☐ 6. Remain calm and await further instructions from campus administrators

Excesssive Heat Warning
Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer
- ☐ 2. Communicate to all staff that an excessive heat warning has been issued; instruct staff to immediately implement protective actions and communicate with parents regarding the situation
- ☐ 3. Be prepared to provide additional support for facilities operations and anticipate periods of potential AC equipment failure
- ☐ 4. Curtail outdoor activities such as recess, athletic/band practice until threat is over
- ☐ 5. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 6. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 7. Prepare a printed copy of student rosters and contact information
- ☐ 8. Provide water distribution stations or processes
- ☐ 9. Monitor the needs of portable buildings for classroom temperature an ability to control it through it through air conditioning
- ☐ 10. Be prepared to modify schedules as needed to allow for hydration/restroom breaks
- ☐ 11.Continue to monitor the weather closely—severe conditions can develop quickly

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning extreme heat
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Closely monitor students and other staff for heat related medical conditions; particular attention to those with medical conditions or that are highly susceptible to heat
- ☐ 4. Review emergency procedures and protective actions; potential for wild fires may accompany an excessive heat event
- ☐ 5. Prepare materials to occupy students in the event outdoor schedules are modified or activities are curtailed
- ☐ 6. Be prepared to dismiss students quickly if advised by campus administrators to do so
- ☐ 7. Remain calm and await further instructions from campus administrators

HEAT-RELATED ILLNESSES

WHAT TO LOOK FOR	WHAT TO DO
HEAT STROKE	
• High body temperature (103°F or higher) • Hot, red, dry, or damp skin • Fast, strong pulse • Headache • Dizziness • Nausea • Confusion • Losing consciousness (passing out)	• Call 911 right away-heat stroke is a medical emergency • Move the person to a cooler place • Help lower the person's temperature with cool cloths or a cool bath • Do not give the person anything to drink
HEAT EXHAUSTION	
• Heavy sweating • Cold, pale, and clammy skin • Fast, weak pulse • Nausea or vomiting • Muscle cramps • Tiredness or weakness • Dizziness • Headache • Fainting (passing out)	• Move to a cool place • Loosen your clothes • Put cool, wet cloths on your body or take a cool bath • Sip water **Get medical help right away if:** • You are throwing up • Your symptoms get worse • Your symptoms last longer than 1 hour
HEAT CRAMPS	
• Heavy sweating during intense exercise • Muscle pain or spasms	• Stop physical activity and move to a cool place • Drink water or a sports drink • Wait for cramps to go away before you do any more physical activity **Get medical help right away if:** • Cramps last longer than 1 hour • You're on a low-sodium diet • You have heart problems
SUNBURN	
• Painful, red, and warm skin • Blisters on the skin	• Stay out of the sun until your sunburn heals • Put cool cloths on sunburned areas or take a cool bath • Put moisturizing lotion on sunburned areas • Do not break blisters
HEAT RASH	
• Red clusters of small blisters that look like pimples on the skin (usually on the neck, chest, groin, or in elbow creases)	• Stay in a cool, dry place • Keep the rash dry • Use powder (like baby powder) to soothe the rash

CS280226

Wind Chill Chart

Wind (mph) \ Temperature (°F)	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Calm																		
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times — 30 minutes — 10 minutes — 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

Winter Weather Advisory Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer
- ☐ 2. Communicate to all staff that conditions may warrant further action if a warning is issued; staff should check emergency supplies and student rosters
- ☐ 3. Consider limiting outdoor activities such as recess, athletic and band practice during periods of extreme cold
- ☐ 4. Instruct staff to use extreme caution when working outdoors and while coming in and out of the building. Slips and falls are common during winter weather events. Use wet floor signs as appropriate; de-icer at entrances, etc.
- ☐ 5. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 6. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 7. Prepare a printed copy of student rosters and contact information in the event of a power failure
- ☐ 8. Consider modifying school start or dismissal times
- ☐ 9. Monitor transportation routes for driving conditions; be prepared to support buses that won't start, need towing, etc.
- ☐ 10. Notify support staff to prepare the facilities for the threat of severe weather
- ☐ 11. Continue to monitor the weather closely—conditions can change quickly

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning severe weather
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Review emergency procedures and protective actions
- ☐ 4. Be prepared for late parent drop off or early pick up
- ☐ 5. Be prepared with materials to occupy students in the event outdoor schedules are modified or activities are curtailed
- ☐ 6. Remain calm and await further instructions from campus administrators

Winter Weather Warning Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer; if a winter weather warning is issued for the area, immediately implement protective actions; check procedures for cancellation of school, delayed start or early release
- ☐ 2. Communicate to all staff that conditions that a winter weather warning has been issued; instruct staff to immediately implement protective actions and communicate with parents regarding the situation
- ☐ 3. Be prepared to provide additional support for transportation operations
- ☐ 4. Curtail outdoor activities such as recess, athletic and band practice until threat is over
- ☐ 5. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 6. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 7. Prepare a printed copy of student rosters and contact information
- ☐ 8. Check hallways and shelter areas to ensure they are ready to receive students in the event further protective actions are needed.
- ☐ 9. Monitor the needs of portable buildings for heat and the ability to go in and out safely
- ☐ 10. Notify custodial and/or maintenance staff to provide de-icer and keep entrances and exits clear and dry as possible
- ☐ 11. Continue to monitor the weather closely—severe conditions can develop quickly

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning severe weather
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Review emergency procedures and protective actions; prepare for delayed start or early dismissal
- ☐ 4. Prepare materials to occupy students in the event outdoor schedules are modified or activities are curtailed
- ☐ 5. Be prepared to dismiss students quickly if advised by campus administrators to do so
- ☐ 6. Remain calm and await further instructions from campus administrators

Thunderstorm Watch Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer
- ☐ 2. Communicate to all staff that conditions may warrant further action if a warning is issued; staff should check emergency supplies and student rosters
- ☐ 3. Consider limiting outdoor activities such as recess, athletic and band practice until the watch has expired
- ☐ 4. Prepare for lightning in the area
- ☐ 5. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 6. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 7. Prepare a printed copy of student rosters and contact information
- ☐ 8. Check hallways and shelter areas to ensure they are ready to receive students in the event a tornado warning is issued and prepare to take shelter quickly if necessary
- ☐ 9. Notify custodial and/or maintenance staff to secure/remove any loose objects on the exterior of the building
- ☐ 10. Continue to monitor the weather closely—tornadoes can develop quickly

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning severe weather
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Review emergency procedures and protective actions
- ☐ 4. Be prepared to relocate to shelter areas with students quickly if advised by campus administrators to do so
- ☐ 5. Be prepared with materials to occupy students in the event outdoor schedules are modified or activities are curtailed
- ☐ 6. Remain calm and await further instructions from campus administrators

Thunderstorm Warning Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer; if a thunderstorm warning issued for the area, immediately implement protective actions
- ☐ 2. Communicate to all staff that conditions that a thunderstorm warning has been issued; instruct staff to immediately move away from windows, stay in side, be prepared for possible high winds, hail, lightning and potential flooding
- ☐ 3. Curtail outdoor activities such as recess, athletic and band practice until threat is over
- ☐ 4. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 5. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 6. Prepare a printed copy of student rosters and contact information
- ☐ 7. Check hallways and shelter areas to ensure they are ready to receive students in the event further protective actions are needed.
- ☐ 8. Notify custodial and/or maintenance staff to secure/remove any loose objects on the exterior of the building
- ☐ 9. Continue to monitor the weather closely—severe conditions and tornadoes can develop quickly

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning severe weather
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Review emergency procedures and protective actions
- ☐ 4. Be prepared to relocate to shelter areas with students quickly if advised by campus administrators to do so
- ☐ 5. Prepare materials to occupy students in the event outdoor schedules are modified or activities are curtailed
- ☐ 6. Remain calm and await further instructions from campus administrators

Tornado Watch Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer
- ☐ 2. Communicate to all staff that conditions may warrant additional action if a warning is issued; staff should check emergency supplies and student rosters
- ☐ 3. Consider limiting outdoor activities such as recess, athletic and band practice until the watch has expired
- ☐ 4. Review the school's emergency operations plan (EOP) and prepare to implement
- ☐ 5. Check administrative pre-stocked emergency supplies and go-kits
- ☐ 6. Have attendance clerk prepare a printed copy of student rosters and contact information
- ☐ 7. Notify staff located in portable buildings to prepare to relocate to designated shelter areas
- ☐ 8. Check hallways and shelter areas to ensure they are ready to receive students in the event a tornado warning is issued
- ☐ 9. Prepare to take shelter quickly if necessary
- ☐ 10. Notify custodial and/or maintenance staff to secure/remove any loose objects on the exterior of the building
- ☐ 11. Continue to monitor the weather closely—tornadoes can develop quickly

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators concerning severe weather
- ☐ 2. Check classroom emergency supplies and student rosters
- ☐ 3. Review emergency procedures and protective actions with students
- ☐ 4. Be prepared to relocate to shelter areas with students quickly if advised by campus administrators to do so
- ☐ 5. Be prepared with materials to occupy students in the event outdoor schedules are modified or curtailed
- ☐ 6. Remain calm and await further instructions from campus administrators

Tornado Warning Protective Actions Checklist

School Administrators

- ☐ 1. Monitor the weather closely via a weather radio, television, cell phone or computer; if a tornado warning is issued for the immediate area, implement protective actions
- ☐ 2. Advise staff that a tornado warning has been issued; instruct staff to immediately begin relocating students to the designated safe areas (interior hallways, restrooms, etc.). Avoid areas with large roof spans such as gymnasiums and auditoriums
- ☐ 3. Relocate staff and students from portable buildings into permanently constructed buildings; ensure all special needs students and staff are safely relocated
- ☐ 4. Notify support staff that a tornado warning has been issued and to take shelter
- ☐ 5. Continue to monitor the weather via a weather radio, television, cell phone or computer
- ☐ 6. Provide appropriate communication to stakeholders
- ☐ 7. Do not release students to parents/guardians who have arrived on-scene. Invite them to take shelter inside the school.
- ☐ 8. Advise district administration of protective actions taken

Teachers and Staff

- ☐ 1. Listen for communication from campus administrators; be prepared to relocate to the shelter area with students when directed to do so
- ☐ 2. When advised to shelter, move students quickly to the pre-designated shelter area taking the class roster and emergency contact information
- ☐ 3. Once in the shelter area, instruct students to take a tornado safe position. Have them sit and face the walls. Instruct them to crouch and cover the back of their head and neck, linking their fingers. Demonstrate the protective posture.
- ☐ 4. Remain in the protective posture as long as the threat of a tornado is imminent.
- ☐ 5. Remain calm and await further instructions from campus administrators
- ☐ 6. Do not allow students to leave even following an event unless accounted for an release procedures have been completed