



## MCA Weather Policy

Please use the following guidelines when planning team activities. Always err on the side of caution. Much like the activity of mountain biking is “yes/no” (no “maybe”), conducting team activities outside under the proscribed weather conditions should either be a clear “yes” or it is a “no.”

The MCA monitors and uses the closest weather station location to the information trailer during race events.

### THUNDERSTORMS/LIGHTNING/SEVERE WEATHER:

Lightning can strike from 10 miles away, either in front of or behind storms. Lightning visibility can vary depending upon the time of day and atmospheric conditions. Factor in time for evacuation to a safe place if lightning/thunderstorms are in the forecast or develop during your team event.

Weather and lightning strike apps can be useful tools in determining whether to continue a team activity. You should have those available to consult on your phone, but your primary senses should control: If you see/hear thunder/lightning that supersedes the weather applications.

- “If you hear it, clear it” – If you hear thunder, that means a storm is within 10 miles and you should cease team activities and get to a safe place/shelter. You may not always see lightning when a storm approaches. It doesn’t have to be actively raining for this rule to apply.
- You see lightning but no thunder – Under certain atmospheric conditions you may see lightning from a distant storm. If the lightning is low on the horizon and you do not hear thunder, it may be more than 10 miles away. Consult your weather apps and make an informed decision about starting or continuing team activities. Any lightning within 10 miles (even if you do not hear thunder) means team events are cancelled, and you should get to shelter.
- Threatening skies but no thunder/lightning: Storms can develop suddenly overhead or as they move into the area. Always be mindful of the potential for severe weather and plan accordingly.
- NWS Warnings – If there is a severe weather warning (thunderstorm/tornado) for your area you should cancel your team event and evacuate if the event has already started.
- Resuming activities – Wait at least 30 minutes after the last incidence of thunder and/or lightning before resuming your team event.

### HEAT:

The MCA uses Wet Bulb Globe Temperature (WBGT) to determine when activities need to be adjusted or cancelled. You can determine the WBGT using air temperature and relative

humidity. You can reference this guide from the NWS to estimate WBGT: [Wet Bulb Globe Temperature](#). In the Twin Cities Metro, you can find WBGT based on your location [at this link](#). The MCA monitors and uses the closest weather station location to the information trailer during race events.

If you can't find a WBGT number, use the below chart to plot the air temperature and relative humidity and find your WBGT.

Wet Bulb Globe Temperature (WBGT) from Temperature and Relative Humidity																																				
Temperature in Degrees Fahrenheit																																				
	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0					
0	59.0	60.8	62.6	64.4	66.2	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0
5	60.8	62.6	64.4	66.2	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0	
10	62.6	64.4	66.2	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0		
15	64.4	66.2	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0			
20	66.2	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0				
25	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0					
30	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0						
35	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0							
40	73.4	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0								
45	75.2	77.0	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0									
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55	78.8	80.6	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0											
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65	82.4	84.2	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2	122.0													
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NOTE: This table is compiled from an approximate formula which only depends on temperature and humidity. The formula is valid for full sunshine and a light wind. Table adapted from Bureau of Meteorology

There are potentially dangerous conditions that fall outside of these general guidelines. Please use risk management when planning activities even if conditions technically fall outside of what is listed below.

- WBGT of less than 82 = Normal activities
- WBGT between 82. - 85= 2-hour maximum activity time, decrease intensity/duration of exertion, provide rest breaks
- WBGT between 85.1 – 87.1 = 1-hour maximum activity time, significantly increase rest breaks
- WBGT over 87.1 = Activities cancelled until WBGT is lower than 87.1

## AIR QUALITY:

The MCA uses the [Air Quality Index](#) to determine whether team activities should be lessened or cancelled. You can find the current air quality at [this link from MNPCA](#). In recent years wildfire smoke in particular has impacted the AQI in some areas of the state to levels where physical exertion was not safe.

It is generally recommended that any athlete or team personnel who develops a cough, chest tightness, wheezing, or shortness of breath should not exercise outside when the air quality is bad.

Monitor the AQI for your area during the season and plan activities accordingly.

- AQI Green (0-50) – Good
- AQI Yellow (51-100) – Moderate, check in with coaches and student-athletes with air quality sensitivities, consider reducing duration or intensity for sensitive groups

- AQI Orange (101 – 150) – Unhealthy for sensitive groups, athletes with asthma should move indoors, competitive activities cancelled, all other activities reduced in duration and intensity
- AQI Red or above (> 150) – Activities cancelled

## HEAVY RAIN:

Teams may still hold activities if it is raining and no lightning/thunder are present assuming they have an appropriate venue or surface to ride on. Remember that rain reduces visibility and traction and increases stopping distance. As always, use risk management principles to determine whether practice is appropriate given the intensity and amount of rainfall.

If rainfall reaches the Rain Accumulation Threshold, where flash flooding is possible, you should avoid any trail system that may be impacted.

- Flash Flood Watch or possible that Rain Accumulation Threshold will develop: Monitor situation
- Rain Accumulation Threshold is expected: Evacuate trails
- NWS Flash Flood Warning issued for creek/river near or in trail system or Rain Accumulation Threshold will be met: Cancel activity