



Managing Heat and Air Quality in CIF Athletics

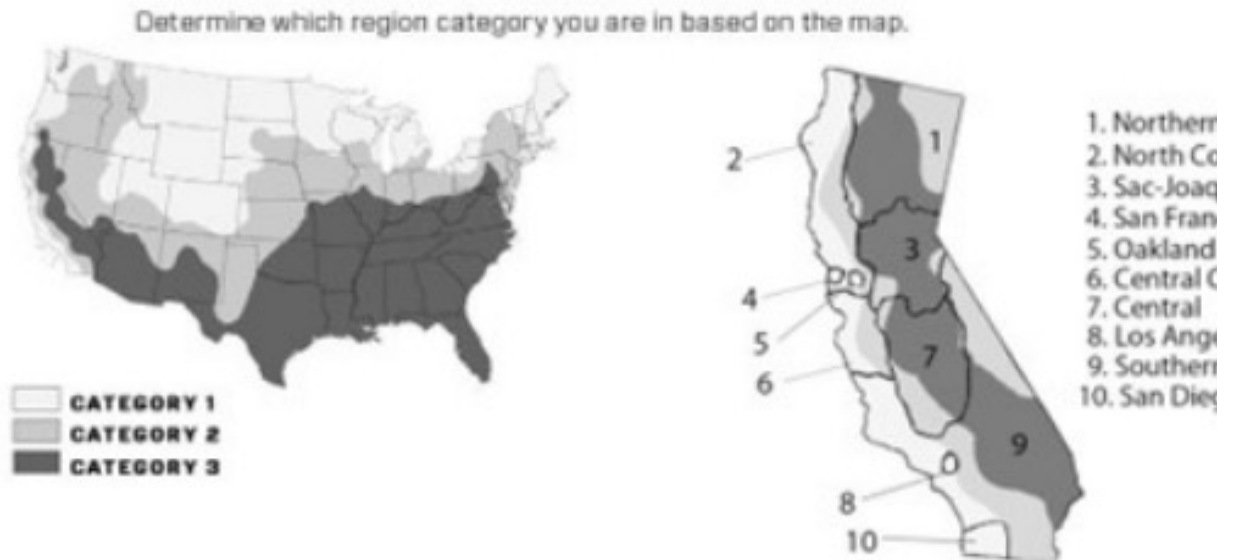
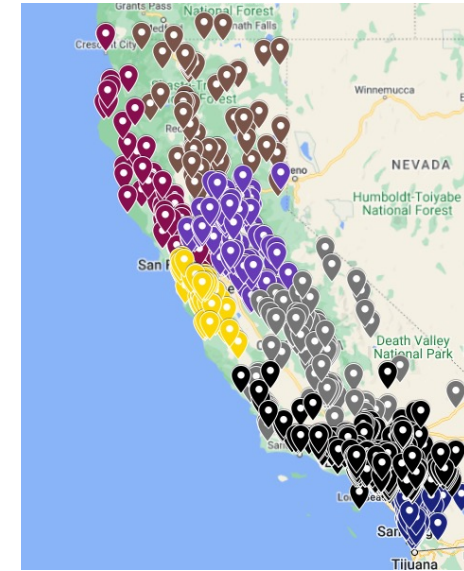
Understanding CIF Policies for Safe Sports Practices

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Importance of managing Heat and AQI During Athletic Practice and Competitions

3 Regional Heat Safety Categories

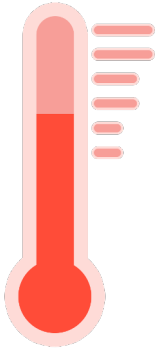


CIF Heat Policy Overview

- Purpose: Protecting athletes from heat-related illnesses.
- Guidelines:
 - Temperature thresholds
 - WBGT
 - Hydration requirements
 - Practice/game modifications



CIF Heat Policy Overview



**PROTECT
ATHLETES**



Heat Illness – Heat Illness means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope, and heat stroke – **100% PREVENTABLE DEATH**

- Wet Bulb Globe Temperature
- Outdoor Sports Acclimatization
- Emergency Response

CIF Bylaw 503.K

Wet Bulb Globe Temperature (WBGT)

The CIF requires that schools use the WBGT for the most accurate measurement.

Measures heat stress in direct sunlight – which takes into account – temperature, humidity, wind speed, sun angle, and cloud cover.

Simple Terms – Heat Stress on the body in DIRECT SUNLIGHT.

How is WBGT different than Heat Index?

Heat index only takes into account air temperature and humidity. The heat index was also designed for SHADY locations. Direct sun adds an additional 15 degrees to the Heat Index.



Detailed CIF Heat Policy Details

Temperature thresholds for modifying or canceling activities.

Recommendations for rest breaks and hydration.

Strategies for monitoring athletes for heat stress.

CIF Heat Category Zones

<82.0°F	<79.7°F	<76.1°F	Normal Activities – Provide at least three separate rest breaks each hour with a minimum duration of 3 min each during the workout.
<27.8°C	<26.5°C	<24.5°C	
82.2 - 86.9°F	79.9 - 84.6°F	76.3 - 81.0°F	Use discretion for intense or prolonged exercise; Provide at least three separate rest breaks each hour with a minimum duration of 4 min each.
27.9 - 30.5°C	26.6 - 29.2°C	24.6 - 27.2°C	
87.1 - 90.0°F	84.7 - 87.6°F	81.1 - 84.0°F	Maximum outdoor practice time is 2 h. Provide at least four separate rest breaks each hour with a minimum duration of 4 min each. <u>For Football/Field Hockey:</u> players are restricted to helmet, shoulder pads, and shorts during practice. If the WBGT rises to this level during practice, players may continue to work out wearing full pads without changing to shorts.
30.6 - 32.2°C	29.3 - 30.9°C	27.3 - 28.9°C	
90.1 - 91.9°F	87.8 - 89.6°F	84.2 - 86.0°F	Contests are permitted with additional hydration breaks. Maximum outdoor practice time is 1 h. No protective equipment may be worn during practice, and there may be no conditioning activities. There must be 20 min of rest breaks distributed throughout the hour of practice.
32.2 - 33.3°C	31.0 - 32.0°C	29.0 - 30.0°C	
≥92.1°F	≥89.8°F	≥86.2°F	No outdoor workouts/contests. Delay practice/competitions until a cooler WBGT is reached.

CIF Outdoor Sports Acclimatization Policy

Acclimatization standards for all outdoor sports

- *Gradual Increase in activity* – Start slowly and build up, gradually increase intensity
- *Hydration Education* – Teach the importance of hydration, encourage regular water breaks
- *Modify practice times/locations* – Schedule activity when it is cooler, allow frequent breaks
- *Monitor athlete health* – Educate coaches, athletes, and parents, have a whole body cooling method available

FOR ALL OUTDOOR FALL SPORTS

- Preseason practice begins with a FIVE DAY acclimatization period for all athletes, regardless of their first day of practice.
- One on field practice per day for five days and nothing longer than 2 hours
- Football – 3 Days of Helmets, 2 Days of Helmet and Shoulder Pads, 6th Day Full Gear

Whole Body Cooling Methods

CIF: The school will have available a method to institute whole-body cooling to treat a student-athlete with exertional heat illness, especially heat stroke (e.g., ice tub, “taco tarp”, ice towels) which is easily accessible at practice and contest venues.

COOL FIRST – TRANSPORT SECOND

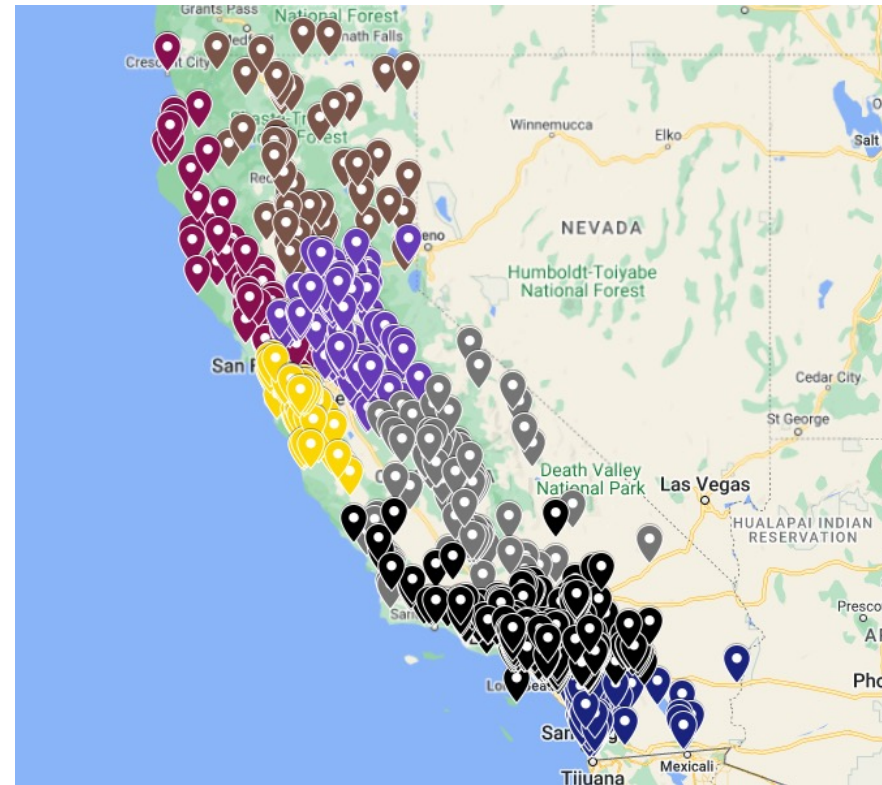
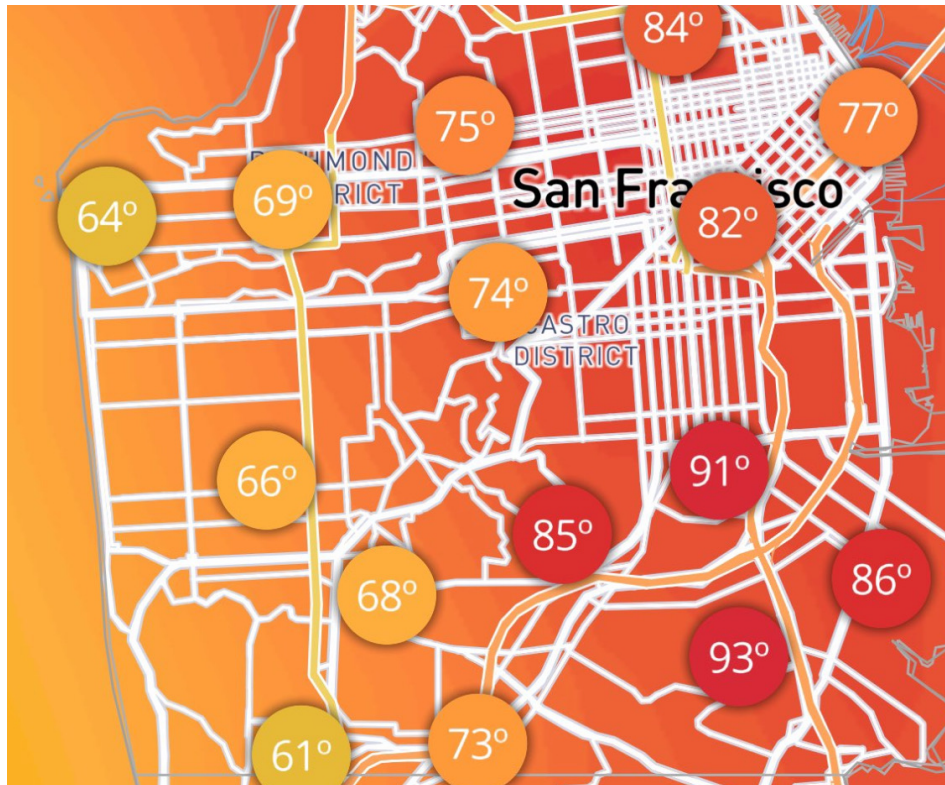
- Cold Water Immersion Tub
- Sports Medicine Supply Companies
- Large Kiddie Pool
- TACO Method
- Body Bag
- Ice Towels



Must be easily accessible to all practice and game venues

Identifying heat illness





Temperature Map Analysis



CIF AQI Policy

- Purpose: Ensuring athlete safety in poor air quality conditions.
- Guidelines:
 - AQI thresholds
 - Protective measures
 - Activity modifications

Detailed CIF AQI Policy Guidelines

AQI thresholds for modifying or canceling activities

Recommendations for indoor activities and protective equipment.

Strategies for monitoring air quality.

AQI

	US AQI Level	PM2.5 ($\mu\text{g}/\text{m}^3$)	Health Recommendation (for 24 hour exposure)
	Good 0-50	0-12.0	Air quality is satisfactory and poses little or no risk.
	Moderate 51-100	12.1-35.4	Sensitive individuals should avoid outdoor activity as they may experience respiratory symptoms.
	Unhealthy for Sensitive Groups 101-150	35.5-55.4	General public and sensitive individuals in particular are at risk to experience irritation and respiratory problems.
	Unhealthy 151-200	55.5-150.4	Increased likelihood of adverse effects and aggravation to the heart and lungs among general public.
	Very Unhealthy 201-300	150.5-250.4	General public will be noticeably affected. Sensitive groups should restrict outdoor activities.
	Hazardous 301+	250.5+	General public at high risk of experiencing strong irritations and adverse health effects. Should avoid outdoor activities.

Pictured: Air quality index chart with corresponding PM2.5 $\mu\text{g}/\text{m}^3$.

Heat and AQI Considerations



The importance of considering air quality alongside heat.



Schools should integrate AQI and Heat policies in decision-making.

Ensuring Athlete Safety



Importance of having
Certified Athletic Trainers



Encourage continuous
monitoring and adherence to
guidelines.



Call to action: Implement the
CIF Heat and AQI policies

Thank You

