

<b>POLICY</b>	<b>Sports Services</b>
TITLE:	Extreme Weather and Conditions Policy
AREA:	Sports Services
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## 1. INTRODUCTION

Paddle Australia (PA), its Member Associations (MAs) and Affiliated Clubs (Clubs) (together the Paddle Organisations) have a responsibility to ensure that all of their paddling competitions and events are conducted in a safe environment. The welfare of all participants must be the foremost concern for Event Organisers and the way in which Event Organisers prepare for and respond to adverse weather and other conditions is a critical component of risk management.

There is also a wider responsibility for the Paddle Organisations to inform and educate the Australian paddling community of the risks associated with our sport and how to make sure that participation in paddling activities is safe as well as fun. Exercising in extreme weather or other conditions can cause extra demands on the body, while prolonged exposure to extreme conditions, even for those not actively paddling, can present similar risks. The dangers of high intensity exercise in such environments can be harmful and even fatal.

This Policy has been developed to assist in the regulation of PA competitions and events, and also to provide information and guidance to the whole paddling community, in particular in coming to an informed decision as to whether to modify, postpone or cancel paddling activities.

## 2. SCOPE

This Policy is applicable to all competitions and events administered by Paddle Australia or conducted on its behalf. It may be adopted, with or without amendment, by any other Paddle Organisation.

For the purposes of this Policy the word Participant will encompass the following groups: members, spectators, volunteers, officials, coaches and any other persons participating in competitions or events.

## 3. INTENDED USE

There is a recognition that it is not possible to set down a black and white set of benchmarks at which point events must be modified. This is because of the diverse nature of paddling activities and the varied nature of the environments in which they take place. As an example, conditions which may be appropriate for a slalom race, which requires maximal exertion for a short period of time, may be inappropriate for a marathon race which requires sustained exertion over multiple hours. Similarly, children or older participants may have different requirements to high performance athletes. Also, consideration must be given to the fact that while competitors may be exposed to extreme weather conditions for a limited period, officials and/or volunteers may have a different period of exposure. Event Organisers have a duty of care to monitor environmental conditions and minimise risk for all Participants involved in a Paddle Australia event.

While agencies such as the Bureau of Meteorology, Sports Medicine Australia and the Australian Institute of Sport are able to provide data and guidelines to assist in the decision-making process, these must be weighed against information specific to the location and nature of the activity. The BOM provides numerous local readings around Australia; however, there may be no reading available for the exact location of an event. Similarly, information provided by such third parties may not be current. In assessing Air Quality, for example, there is typically a time lag of more than one hour to the availability of the recent readings. Accordingly, external

data must be taken into consideration along with 'on the ground' observations of conditions and relevant factors.

This Policy lays out guidelines and factors to be considered by Event Organisers and, ultimately, all Participants involved in the event. While Event Organisers may choose to alter or cancel activities, even if the decision is made to continue Participants should never be forced to participate in paddling activities in any circumstances. PA respects the right of the individual to choose not to participate in a PA sanctioned activity for whatever reason.

## 4. EXTREME HEAT

For up to date temperature and humidity readings, Event Organisers should utilise weather monitoring equipment at the competition venue where possible. Alternatively, Participants are encouraged to refer to the Bureau of Meteorology's website - [www.bom.gov.au](http://www.bom.gov.au). Then follow the link to: *your state*, then to: *Observations*, then: *Thermal Comfort*. In the event that readings are not available at the exact location of an activity, the BOM site will provide local temperature and humidity readings.

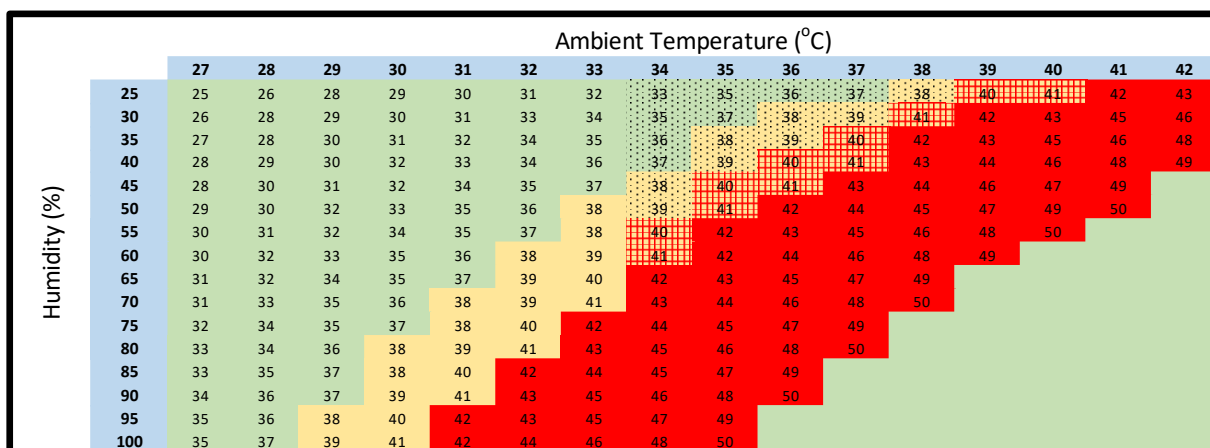
Event Organisers and participants should understand that children are at greater risk of heat exposure than adults because their thermoregulation mechanisms are not fully developed (particularly high temperatures combined with high humidity levels). Similarly, older participants can also be at high risk because of reduced cardiac function. Highly trained athletes have improved thermoregulatory capacity, particularly if fully heat acclimatised. In addition, depending on the disability, some Para athletes are unable to thermoregulate.

### 4.1 HEAT INDEX

As well as temperature, humidity is an important consideration in determining whether to amend or cancel a paddling activity. A Heat Index is used as a means of incorporating both temperature and humidity to give a single figure to be used in assessing conditions.

The Heat Index shall be determined from the Heat Index Table. In using the Heat Index Table provided below, Ambient Temperature and Relative Humidity should be measured directly at each competition venue, in the shade (out of direct sunlight). Relative Humidity can be determined by using a digital thermometer/ hygrometer that can be purchased at electronic stores at a reasonably low cost.

For example, if the Temperature is 35°C and the Relative Humidity is 40%, the Heat Index is a value of 39. If the Temperature is 35°C and the Relative Humidity is 60%, the Heat Index is a value of 42.



## 4.2 ACTIVATION RECOMMENDATIONS

The Event Organisers have the responsibility to modify, postpone or cancel any race on account of the weather conditions if they believe there is real danger to the Participants' health based on the heat index.

The following guidelines will determine activation of the recommendations.

- **For competitors over 16 years of age:**

Where the heat index is 42 and above (Red Zone), competition should be postponed or cancelled. At heat index between 38 and 41, inclusive (Orange Zone), Event Organisers need to assess the suitability of participation based on the following:

- Nature of Activity (e.g. duration/intensity of exposure, activity is in water, etc.)
- Fitness level of competitors
- Athletic ability
- Age of competitors
- Level of acclimatization.

- **For competitors 16 years and younger and KL1/VL1 Paracanoe Athletes:**

Ideally, U16 and KL1/VL1 events should be scheduled for the cooler parts of the day.

Where the ambient temperature is 34 degrees and above and the heat index is 40 and above (Patterned Red Zone), competition for U16 and KL1/VL1 athletes should be postponed or cancelled. As soon as the ambient temperature is 34 degrees or above, Event Organisers need to assess the suitability of U16 and KL1/VL1 athletes participating in events based on the following:

- Nature of Activity (e.g. duration/intensity of exposure, activity is in water, etc.)
- Fitness level of competitors
- Athletic ability
- Age of competitors
- Level of acclimatization.
- For Para athletes, the nature of the impairment should be considered

- **For Technical Officials and Volunteers:**

In addition to the guidelines for competitors, consideration must be given to technical officials and volunteers involved in the delivery of the paddling activity. At heat index between 38 and 41, inclusive (Orange Zone), Event Organisers need to assess the suitability of technical officials and volunteers participating in events based on the following:

- Nature of Activity (e.g. duration/intensity of exposure, access to periods of rest, exposure to the elements, access to seating, water and sustenance, etc.)
- Fitness level of participants
- Age of participants
- Level of acclimatization.

Event Organisers should consider strategies to minimise risk to technical officials and volunteers, including rotation of roles, provision of additional food/drink/shade, etc. In extreme conditions Event Organisers should consider suspension of the paddling activity for 10 minutes every hour to allow officials and volunteers to take a break.

## 5. AIR QUALITY

Poor air quality can pose a health risk to Participants. Elevated exposure to pollutants can result in inflammation of the respiratory tract, exacerbating conditions such as asthma. During exercise the total amount of air passing through the airway can be increased, with a corresponding increase in pollutant exposure. The health impact of poor air quality can vary based on an individual's current health status and previous medical conditions.

The Air Quality Index (AQI) is an accepted means of quantifying air quality by public health authorities encompassing:

- Air pollution levels at your nearest monitoring site or region
- The common contributing pollutants
- The overall health risk associated with a given rating

The AIS have published best practice guidelines on Smoke Pollution and Exercise: ([https://ais.gov.au/position\\_statements#smoke\\_pollution\\_and\\_exercise](https://ais.gov.au/position_statements#smoke_pollution_and_exercise))

Recognising that it is not a one size fits all approach, the recommendations are a useful tool to adapt for specific sporting activities.

For healthy individuals, the AIS guidelines recommend that training/competition should be modified or cancelled if the AQI levels are more than 100 for prolonged intense endurance activities (eg. marathon, ocean racing or long distance canoe sprint events) or more than 150 for intermittent or short duration intense activities (eg canoe slalom, canoe sprint, freestyle events). With that in mind, Event Organisers must meet to consider cancelling or modifying the paddling activity as soon as the AQI levels elevate beyond 100 for longer duration activities and 150 for shorter duration and intermittent activities. In making a determination as to whether the program for an activity should be altered, consideration should also be given to factors including:

- Whether recent readings suggest the AQI is trending up or down (Note: it is a recommendation that events are modified/cancelled if the AQI is above the tolerance threshold and is trending upwards);
- Temperature;
- Humidity;

- Prevailing winds;
- Local bushfire or atmospheric conditions;
- The AQI forecast; and
- The particular nature of the activity, in terms of duration, intensity, etc

In assessing real-time air quality, Event Organisers should consider utilising handheld devices (specifically for outdoor use) that measure PM2.5 concentration at the competition venue. Alternatively, Hourly AQI readings can be obtained using numerous Apps including:

<http://aqicn.org/here/>

Importantly, point in time readings should always be preferred to rolling 24 hour levels, given that local atmospheric conditions can change extremely quickly. Attention should be paid to the time at which the reading was taken. It may be that the most recent reading is for conditions up to two and a half hours earlier. In such circumstances local observations may take on a larger role in making a determination.

Participants who are more susceptible to poor air quality (eg asthmatics) should seek medical advice and make their own decision on whether they should participate in an activity once the AQI is over 100.

## 6. BUSHFIRES

Bushfires and grassfires are very common throughout Australia. The nature of these fires can be unpredictable and fast moving. PA recommends, activities should be cancelled or postponed if the advice in the area is “watch and act” or higher. Up to date information regarding the status of individual fires can be obtained through websites/apps of government fire services.

If the advice is increased to “Emergency” than all activities must stop immediately, and all participants must follow the instructions of emergency personnel in the area.

## 7. LIGHTNING

Lightning poses a real risk of death or serious injury to individuals undertaking outdoor activities, and this risk is increased when participants are on the water.

A safe distance from lightning is advised to be at least 10km. Therefore, if an activity is taking place within 10km, the recommendation is to stop activities and seek shelter.

If you are unable to access information on the location of the lightning, the 30/30 lightning guideline is to be used. The 30/30 lightning guideline is in two stages:

### 1. Stop the activity:

If the time between seeing the lightning flash and hearing the thunder is less than 30 seconds, than all activities should stop, and you should seek shelter as the lightning is within 10km of your location.

### 2. When it is safe to resume the activity:

A minimum 30 minutes wait is recommended before activities resume.

## 8. RESPONSIBILITIES OF COMPETITION MANAGER

- The Competition Manager, or similar, is appointed by the Event Organisers.
- The Competition Manager must have access to the appropriate weather monitoring equipment and/or internet sites to monitor weather conditions. For activities taking place in remote locations, this includes ensuring a steady internet signal is available.
- When conditions are forecast for extreme weather or the weather begins to deteriorate conditions are to be monitored at least every hour.
- When extreme conditions are forecast, the Competition Manager should ensure that all Participants are aware of the process for assessment of conditions and how any decisions will be communicated.
- If an activity is suspended, the Competition Manager must ensure firstly that all Participants involved are promptly made aware of the decision and secondly that they are made aware of process in place to make subsequent decisions around resumption or cancellation. This will allow participants to make informed decisions around what they should be doing during any break in the activity.
- The Competition Manager should keep timely records of the processes undertaken to reach decisions and the outcomes arrived at.
- The Competition Manager is responsible for ensuring that the Risk Management Plan for the activity is up to date in advance of the holding of the activity.
- The Competition Manager is responsible for ensuring that there are appropriate measures in place to mitigate the risks of extreme weather or conditions, such as the provision of shade or sunscreen, and access to water.

## 9. ARRIVING AT A DECISION TO MODIFY/SUSPEND/CANCEL AN ACTIVITY

- The Competition Manager has the power to cancel or postpone an activity on account of the weather conditions.
- Where possible, the Competition Manager should seek advice from an authorised medical person at the activity. Ideally, this medical advisor should be someone who does not have any interest in the outcomes of the activity itself, so as to maximise the objectivity of the advice provided.
- In assessing conditions, the Competition Manager should seek views from the stakeholder groups involved in the activity including but not limited to: Persons with experience of local conditions; Athletes; Officials; the relevant Paddle Organisation(s).
- Notwithstanding the above, PA reserves the right to cancel any competition at its absolute discretion if it is deemed that the environmental conditions present a serious health risk to Participants, even if conditions fall within the acceptable levels detailed within this Policy.



## APPENDIX 1 – FURTHER INFORMATION ABOUT HEAT RELATED RISKS

Exposure to high temperatures is an issue to be aware of with respect to all paddling activities. High intensity exercise in a hot environment, with the associated fluid loss and elevation of body temperature, can lead to dehydration, heat exhaustion and heat stroke. It should be noted that children are generally more susceptible to heat related risks, given that they have greater difficulty in getting rid of heat. Accordingly, close attention should be paid to children to ensure that they are exercising at their preferred intensity.

Precautions for minimising the risks of heat injuries include:

### 1.1 FLUIDS

- **Do not wait to feel thirsty before you drink!** Thirst is a poor indicator – it is a late signal of severe fluid loss.
- Drink cool water as it is absorbed more rapidly than warm water.
- If competing for more than one hour, use a sports drink - a carbohydrate drink of 5-10% concentration with a small amount of sodium chloride (salt tablets should be avoided because of their very high sodium chloride content, which can make dehydration worse). Diluted sports drinks, cordial and fruit juices should also be made available or recommended. Not only will this make the fluids more palatable but it will be beneficial for replacing fluids, energy and electrolytes lost during exercise. It will delay the onset of exercise-induced exhaustion and hence aid in the prevention of heat stroke.
- It is recommended that officials and participants drink at least 7-8ml of fluid per kg of body mass, per hour, to diminish the risk of heat illness.
- Fluid should begin to be consumed at least two hours before exercising to promote adequate hydration.
- Drink at least 500 ml (2-3 glasses) ½ to 1 hr before a race. Drink at least 500 ml to 1 litre (5-6 glasses) after a race and continue to drink until fluid losses are replaced.

### 1.2 WHAT TO WEAR

- Wear a hat, cap or visor – a broad brimmed hat is preferred.
- Wear 50+ sunscreen to prevent skin damage and skin cancer.
- Wear sunglasses to protect your eyes.
- Where possible wear long-sleeve garments to cover as much of your skin as possible
- Replace sweat-saturated garments with dry clothing.

### 1.3 PUBLIC ANNOUNCEMENTS

- It is recommended that public announcements be regularly made during events reminding everyone to keep drinking water, apply sunscreen and remain in the shade whenever possible.

## 2. SYMPTOMS OF HEAT INJURY OR HEAT STROKE

### 2.1 SYMPTOMS OF HEAT EXHAUSTION

Dehydration can lead to heat exhaustion. Symptoms of heat exhaustion may include:

- High heart rate
- Dizziness
- Headache
- Loss of endurance / skill
- Confusion
- Nausea
- Cramps
- The skin may still be cool/sweating, but there will be signs of developing vasoconstriction, e.g. pale colour.
- They will pass little urine, which will be highly concentrated.
- They may collapse on cessation of activity.

If you have any of these symptoms, you should stop competing, drink more fluids and cool down (seek medical treatment if symptoms do not improve rapidly).

### 2.2 EMERGENCY PLAN FOR HEAT EXHAUSTION

If a person is showing any symptoms of heat exhaustion take the following action:

- Stop the person
- Lie the person down, preferably in shaded area out of direct sunlight
- Loosen and remove excessive clothing
- Cool by wetting skin liberally and vigorous fanning
- Give cool water to drink if conscious
- If the person is confused or unable to drink water seek medical help immediately.

### 2.3 SYMPTOMS OF HEAT STROKE

Severe dehydration may lead to heat stroke, which is potentially fatal and must be treated immediately by a medical practitioner. Participants who keep participating when suffering from heat exhaustion may experience heat stroke. Heat stroke can occur even when drinking plenty of fluids. It is important to cool the person down as quickly as possible. Heat stroke symptoms include:

- Dry skin

- Confusion
- Collapsing

#### 2.4 EMERGENCY PLAN FOR HEAT STROKE

If a person is showing any symptoms of heat stroke take the following action:

- **Call a Doctor or Ambulance immediately**
- Stop the person
- Lie the person down
- Loosen and remove excessive clothing
- Cool by wetting skin liberally and vigorous fanning. If access to a shallow bath of water/iced water is available this should be used
- Give cool water to drink if conscious
- Apply wrapped ice packs to groin and armpits
- SEEK MEDICAL ASSISTANCE

For more information on heat related injuries refer Sports Medicine Australia website <https://sma.org.au/sma-site-content/uploads/2017/08/beat-the-heat-2011.pdf>.