

The first part of this document is aimed at third parties (Councils or land holders) who have an interest in whether a risk assessment has been carried out. The first part of the 'Preamble', down to the asterisk, could be omitted from the document if issued as a Procedure to be binding on the Members involved in running the event. The second appendix, 'Summary of responsibilities' could be omitted from the document sent to third parties

Risk Assessment for Local "Try it" Orienteering Events

PLACE:

EVENT DATE:

Preamble

The event is to be managed by the following members of Garingal Orienteers Inc.:

- Organiser:
- Planner
- Vetter

The Event Planner sets the orienteering courses. The Vetter supervises the Planner's work to confirm that the courses are safe and fair for the participants. The Organiser sets up and runs the 'Start' and 'Finish' functions.

The objective of the participants is to navigate to between 10 and 30 pre-positioned flags within the course area and to return to the finish area. Participants will either run or walk the course depending on age, fitness and navigational skill levels.*

Orienteering is an inherently hazardous activity, considering that it involves physical exertion in weather conditions which may range from high temperatures to very low temperatures, wind and rain. Participants may encounter rough tracks or local traffic, depending on where the course may lead them.

The OANSW Manual gives advice on safe running of events under documents 4.13 "Event Safety" and 4.17 "Search Plan".

A. Participant details

Number of Participants: Estimated to between 50 - 100 people. Age range: 7 to 85

Physical or mental limitations that may impact on the participant's ability to engage in orienteering: None known.

Participants are warned of the dangers inherent in Orienteering when entering the event and are expected to make their own judgements. The parents of young children are expected to judge whether their child can complete their course safely.

The great majority of participants are experienced and will know what to expect of themselves and the courses. Warning notices (where necessary) will be made more explicit for entrants in courses which are more suited to beginners (those described as 'Very Easy' and 'Easy')

B. Activity

The entrants will be participating in orienteering. In particular, they will be given a map and will need to navigate their way around a course within an area defined on the map.

C. Risks

1. Transport to venue

Transport to the venue will be the responsibility of the participants and hence out of the control of the Club members involved in organising the event.

2. The venue

The venue may include local streets, parkland or open forest, forest with understorey and rocky areas.

3. Facilities

Shelter: Limited

Water: available (public bubblers) or will be provided (plastic containers + cups)

4. Public Liability Insurance

The Orienteering Association of NSW maintains an insurance policy that has \$20 million public liability and \$2 million professional indemnity cover.

5. First Aid

A first aid kit is provided by Garingal Orienteers at the start and finish area. There are usually one or more participants who are skilled in first aid.

6. Medical Plan

Local events are held in suburban areas where the ambulance or other medical assistance is available at short notice.

7. Hazards and Anticipated Risks:

The magnitude of the risks below have been evaluated for significance with the aid of the appended Risk Matrix.

- i. Minor falls (tripping, slipping)
- ii. Minor falls leading to injury (grazes, contusions, sprains)
- iii. Falls leading to limb fracture
- iv. Fatal falls
- v. Cuts, abrasions, eye damage from branches of trees and bushes.
- vi. Falling tree limbs
- vii. Heat exhaustion
- viii. Exposure (hypothermia) due to low temperatures, winds
- ix. Disorientation, participants becoming lost.
- x. Poisoning or harm due to invertebrates (ticks, spiders, leaches)
- xi. Snakebite
- xii. Traffic accidents
- xiii. Railways, quarries
- xiv. Natural disasters: bushfires, floods, storms.

i Minor falls. These may arise from tripping on rough surfaces, protruding rocks or due to fallen timber, slipping on wet rock (in streamlines or recent rain). Such falls are common and expected amongst participants.

Estimate of magnitude by Risk Matrix: Low. No special actions required.

ii Minor falls leading to injury. Such falls, arising from the same reasons as above, are less common, but still quite likely.

Estimate of magnitude by Risk Matrix: Medium. Organiser should ensure First Aid kit is included in the gear to be brought to the event.

iii Falls leading to limb fractures. There may be some areas where falls leading to fractures are a possibility.

Estimate of magnitude by Risk Matrix: Medium. The Planner should seek to avoid dangerous areas when setting the course and participants warned of the potential for danger, either by notice before starting or by notes on the map. Organiser shall be prepared to call the ambulance if justified.

iv. Fatal falls. Although fatal falls have occurred in orienteering-related activities, they are extremely uncommon. Local courses rarely approach areas where a drop of a potentially fatal distance may be encountered.

Estimate of magnitude by Risk Matrix: High. The Planner should seek to avoid dangerous areas when setting the course and participants warned of the potential for danger, either by notice before starting or by notes on the map. Organiser shall be prepared to call upon emergency services.

v. Cuts, abrasions, eye damage from branches of trees and bushes. Shrubs in the understorey vary in density, but few bear sharp leaves, thorns or prickles. Scratches to the skin are likely to be superficial and classed with 'i' or 'ii', above. Eye damage is the most severe injury to be expected and participants are encouraged to use eye protection

Estimate of magnitude by Risk Matrix: High. Minor cuts and abrasions can be dealt with by first aid. In more serious cases, Organiser shall be prepared to call the ambulance.

vi. Falling tree limbs. Spontaneous falls are relatively uncommon and usually give warning noises. If storms or high winds arise to the point where the probability of an incident is far more likely, the event will be cancelled.

Estimate of magnitude by Risk Matrix: Medium. Organiser shall cancel event if weather conditions deteriorate to a dangerous level.

vii. Heat exhaustion (and other injury related to high temperatures.) Given that all courses are short in distance and time and hence relatively undemanding, participants are able to make their own judgements on their ability to withstand the conditions before they start. Should a participant become distressed, they can abandon their course and return to the Start easily and conveniently, given the small area covered by the course. Participants are not under competitive pressure to finish or excel. They are very unlikely to push themselves to the point of clinical symptoms of heat exhaustion.

Estimate of magnitude by Risk Matrix: Medium. Water to be available at the finish. No special measures are necessary unless the temperature is high. Organiser shall cancel event if temperatures are extreme.

viii. Exposure and hypothermia. (Injury related to low temperatures, wind, rain). The courses are short in distance and duration, the participants fit and considered to be active over most of the distance, hence maintaining their core temperatures. Extremely low temperatures, to the point of danger, are unlikely in the Sydney area.

Estimate of magnitude by Risk Matrix: Low. Nevertheless, Organiser may cancel event if weather conditions are extreme.

ix. Disorientation, becoming lost. May be due to exhaustion or medical reasons. Exhaustion is less likely because of the shorter distances involved.

Estimate of magnitude by Risk Matrix: Medium. The area covered by the map is relatively small in area and bounded on all sides by significant features which will prevent participants moving off the site. Details of all participants recorded before being allowed to compete and names reconciled with records, to be sure no-one has been overlooked, before organiser leaves event. If person does not return, then:

- a) Contact 'phone number to be called, to find out if runner has returned home without returning to 'Start'
- b) Car numberplates in the immediate area checked, to see if runner's car still at the venue
- c) Searchers sent out to walk the course forward and in reverse.
- d) Organiser shall be prepared to call the emergency services if justified.

x. Poisoning or harm due to invertebrates. This covers ticks, 'chiggers', spiders and leaches. Ticks are not an immediate threat and frequently will not be perceived until the participant has returned to

the 'Start' area. They can be removed using first aid equipment. (Insect repellent the recommended method) There do not appear to be any significant tick borne diseases in Australia, (ref. University of Sydney, Dept. of Medical Entomology.) <http://medent.usyd.edu.au/fact/fact.htm> (But note that this assertion is controversial.)

'Chigger' appears to be a broad term to cover any small biting pests. Irritating rather than a threat: not a disease vector in the Sydney area. (see above reference)

The most toxic venomous spiders are ground dwellers (Funnel Web, *Atrax robustus* & Red Back *Latodectus mactans*) As participants are constantly moving and are well shod (closed shoes, many wearing gaiters), the danger of bites is much reduced. I am unaware of any orienteer suffering spider bite in the last 20 years.

Leeches are uncommon in the Sydney area and are a nuisance rather than a danger. (They do occur in rainforest in the Central Coast & Hunter regions)

Estimate of magnitude by Risk Matrix: Low. No special precautions are called for. Insect repellents may be advised if the event area is known to be tick infested. For leeches, salt is available in first aid kit.

xi Snakebite Snakes are to be expected in some areas where events may be held. Snakes are less likely to be active in winter time when many events are held. Participants generally move at speed and noisily, such that snakes will move away. I am unaware of any orienteer suffering snakebite in the last 20 years.

Estimate of magnitude by Risk Matrix: High. Planner should be aware of potential snakes in an area when setting easier courses. Organiser shall be prepared to call the ambulance.

xii Traffic accidents: Many local events will include running on and across streets which may carry varying degrees of traffic. A participant may be struck by a moving vehicle.

Estimate of magnitude by Risk Matrix: Extreme. All participants shall be warned by prominently placed, written notice, before setting out on a course where traffic danger can be expected. Planner shall avoid setting courses which require crossing of major roads unless a safe crossing is possible (traffic lights, bridges, tunnels). These safe crossing points may be included on the map where justified. Dangerous areas, where traffic level is expected to be high and continuous, or moving at high speed (e.g. the verges of major roads without footpaths, motorway on and off ramps) shall be marked on the map as 'Out of Bounds'. Courses set for beginners and young children should not cross any streets or, where crossing is unavoidable, the crossing area shall be supervised by a responsible club member. .

Vetter shall confirm these preventative actions have been taken.

Organiser shall be prepared to call the ambulance.

xii Railways, quarries and other dangerous areas: Areas where life threatening hazards which cannot be controlled are present. These areas are unlikely in the Sydney area (suburban railway lines are fenced, active quarries and similar sites can be expected to be fenced).

Estimate of magnitude by Risk Matrix: High. Courses shall not be set in areas where there are uncontrollable dangers which are not fenced off. Areas of danger shall be marked on the map as 'out of bounds', whether or not they have been fenced. Vetter shall confirm these preventative actions and, if an out of bounds area of this uncontrolled nature occurs on the map, confirm that it has been fenced off.

xiv Natural disasters: bushfires, floods, storms Local events are held in built-up areas where unheralded natural disasters are less likely to occur during running of an event and where their incidence and severity can be predicted.

Estimate of magnitude by Risk Matrix: Extreme. Organisers and Veters shall take note of any public warnings and their own evaluations of conditions and, if justified, consider cancellation of the event, changing of courses or other compromise. (An example of changing courses would be truncating a course to avoid crossing a flooded creek) **The decision of the Vetter shall take precedence.**

Appendix 1: Risk Matrix

Risk Matrix: For "local" events (small scale events within urban areas)

		Consequence						
		Injuries do not require medical attention	Minor injury or First Aid	Serious injury requiring hospitalisation	Life threatening injury or multiple serious injuries	Death or multiple life threatening injuries		
Likelihood	Probability	Historical						
	10%	Expected to occur in most circumstances	1	2	3	4	5	
	10% - 1%	Will probably occur	M	H	H	E	E	
	1% - 0.1%	Might occur	L	M	M	H	E	
	0.1% - 0.01%	Could occur, but doubtful	L	M	M	H	H	
0.01% - 0.001%	May occur, but only in exceptional circumstances	1	Rare	L	M	H		

Actions resulting from determination of Magnitude:

- E = Extreme: Detailed action plan required
- H = High: Needs attention of Planner, Controller & Organiser
- M = Medium: Specify responsible person
- L = Low: Handled as routine procedure

Determination of magnitude and allocation of actions for dealing with identified hazards

Hazard	Likelihood	Consequence	Magnitude	Action
i. Minor falls (tripping, slipping)	5	1	L	See par 7.i
ii. Minor falls leading to injury (grazes, contusions, sprains)	3	2	M	See par 7.ii
iii. Falls leading to limb fracture	2	3	M	See par 7.iii
iv. Fatal falls	1	5	H	See par 7.iv
v. Cuts, abrasions, eye damage from branches of trees and bushes.	4	3	H	See par 7.v
vi. Falling tree limbs	2	2	M	See par 7.vi
vii. Heat exhaustion	3	2	M	See par 7.vii
viii. Exposure (hypothermia) due to low temperatures, winds	2	1	L	See par 7.viii
ix. Disorientation, competitor becoming lost.	3	2	M	See par 7.ix
x. Poisoning or harm due to invertebrates (ticks, spiders, leaches)	3	1	L	See par 7.x
xi. Snakebite	2	4	H	See par 7.xi
xii. Traffic accidents	3	5	E	See par 7.xiii
xiii. Railways, quarries and other dangerous areas	2	4	H	See par 7.xii
xiv. Natural disasters: bushfires, floods, storms	4	4	E	See par 7.xiv

Appendix 2: Summary of responsibilities

Organiser's responsibilities

- Ensure First aid kit is included in gear.
- Ensure water is available at Assembly area (either existing bubblers or bring container(s) and cups. Quantities will depend on expected weather conditions.)
- Be aware of predicted weather conditions. Where extreme conditions are expected, consider whether participants are likely to be injured (e.g. by flood or bushfire) and whether the event should be cancelled. Note that participants' comfort is not necessarily a factor: they can make their own decisions about getting wet or cold.
- Have plan for contacting emergency services
- Read OANSW 'Guide to organising minor events, especially section 10, 'Safety considerations'
- Be aware of the requirements of the OANSW Manual document 4.13 "Event Safety" (For local events, 4.17 "Search Plan" is probably not necessary.)
- Liaise with Course Setter regarding any warning signs which may be necessary, and display the signs in a prominent place. Examples of such signs would be related to busy roads (and preferred crossing points), dangerous areas declared out of bounds.
- Display the OANSW 'Risk Statement'

Setter's responsibilities

- Courses for beginners ('Very Easy' and 'Easy') shall avoid crossing busy or dangerous roads and other dangerous areas.
- Be aware of the requirements of the OANSW Manual document 4.13 "Event Safety"
- Courses shall avoid areas where a danger is not obvious on the ground: e.g. sudden drops like the edges of quarries may not be obvious to an approaching runner, despite the feature being marked on the map.
- Dangerous areas (quarries, busy roads etc.) should be marked on the map as 'out of bounds'. If marking the map is not practical, Setter should prepare suitable warning notices to be displayed at the event. Where practical, such areas should be indicated in the field by fencing them off using plastic tape or flagging.
- It is recognised that orienteering courses may be set in dangerous areas (slippery rocks, heights, etc.) but participants have been warned and appreciate the dangers
- Ideally, the map should have natural boundaries (road, river etc.) which would prevent participants running off the mapped area. This is not always practical.

Vetter's responsibilities

- Ensure that Organiser is aware of his/her responsibilities (as above)
- Assist the Organiser where necessary in the above responsibilities
- Ensure the Setter is aware of his/her responsibilities (as above)
- Assist the Setter where necessary in the above responsibilities
- Be aware of the requirements of the OANSW Manual documents 4.13 "Event Safety" and 4.17 "Search Plan".
- The Vetter, as the senior member of the Event team, has the right of veto over any decision on setting or organising. An example is as to whether an event should be cancelled due to extreme conditions.