

TITLE: AQUATIC EVENT MANAGEMENT SAFETY	
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PURPOSE:

To provide guidelines on the safety requirements for special events where aquatic activity occurs or is expected to occur.

SCOPE:

This Guideline applies to the following.

- All government authorities and agencies and those organisations responsible for the management and operation of coastal environments;
- Those organisations organising and managing special events; and
- Those organisations experienced in public safety and responsible for the provision of public safety services.

For example:

- Coastal/marine park authorities and managers
- Lifesaving service providers
- Lifeguards and lifeguard supervisors
- Special event promoters
- Special event managers

This Guideline applies to coastal environments, including ocean coastline and saltwater waterways that open to the oceans surrounding Australia.

GUIDELINE DESCRIPTION:

1.0 General risk management

Risk management should be integral to an organisation's operation.

The aim of risk management is to minimise losses and maximise opportunities that are closely aligned to improving safety; not only from the physical risk perspective, but including all risks associated with the use or operation of a particular area and activity.

Appropriate control measures for each area should be determined by the hazard rating of the area (e.g. ABSAMP Hazard Rating) and may include local environmental conditions such as weather and water, and other local conditions such as geography and population demographics.

A risk assessment should be conducted for all areas to which the public has ready access to identify not only risks, but also current control measures and their appropriateness.

- a. All beaches at which it is known that swimming and other similar aquatic recreation occurs, and access to which is readily available, should have a risk assessment.
- b. As part of the risk assessment, an analysis should be completed on whether or not a lifesaving service should be provided.
- c. Coastal managers should identify any foreseeable hazards, assess their risks and take action to eliminate or control them.

2.0 Risk management plan for the event(s)

2.1 A risk management plan should be developed and implemented for each event.

2.2 The scope of a risk management plan is:

- a. To identify, analyse and prioritise the risks associated with the event;
- b. To record these risks on a standard risk register (see Appendix 1);
- c. To develop strategies to mitigate those identified risks by:
 - i. reducing the likelihood of those risks occurring; and/or
 - ii. reducing the consequences of those risks should they occur
- d. To objectively document these mitigating strategies in standardised 'action plans' which should be incorporated into a risk register (see Appendix 1);
- e. A review of the risk management plan should be included in the post-event debrief, at which time both the risk register and action plans will be revisited and updated as required.
- f. Specific sources of risk that should be addressed in this plan include:
 - Human factors
 - Environmental factors
 - External factors
 - Administrative factors

3.0 General safety

3.1 A competitor information and acknowledgement sheet should be completed by all competitors prior to commencement of the first event. The sheet should provide for disclosure of any medical condition of which the event organisers, officials and safety personnel should be informed. The medical conditions include, but should not be limited to:

- a. Asthma; and
- b. Epilepsy

3.2 Effective communication

Every aquatic sporting competition should have an effective communication system between all:

- a. Event directors
- b. Venue owners, managers, operators
- c. Officials
- d. Competition safety officers and safety personnel

3.3 On-water safety

On-water safety requirements should be provided as a minimum in accordance with the provision of this Guideline.

3.4 Off-water safety should be provided, including:

- a. First aid kit(s)
- b. Oxygen equipment
- c. Defibrillation
- d. Other first aid equipment appropriate for the event that may include spinal injury management equipment

4.0 Key safety officials

4.1 Competition Safety Officer

- a. All aquatic sporting events should have a Competition Safety Officer.
- b. The Safety Officer should be responsible for all matters concerning the safety of the competition, the competitors, the officials and spectators.

- c. The responsibilities of the Competition Safety Officer should include as a minimum the following:
- i. Event safety plan is developed and implemented.
 - ii. An appropriate number of trained rescue personnel are suitably equipped, readily available and sited throughout the venue/course and able to respond to any incident that may require their response.
 - iii. All competitors, team officials and competition officials are briefed on the events to be conducted, the course(s) to be used, and the safety procedures.
 - iv. Vessel safety:
 - Personal flotation devices (PFDs) are available and worn as required or requested.
 - Arrangements for the safe embarking and disembarking of crews are suitable and adequate for the number of competitors.
 - Establish an effective communication system between the Safety Officer, the safety boats (rescue craft) and the officials to ensure the correct rescue procedures are adopted in the event of a capsizing.
 - Ensure a head count of crew members from a capsized boat takes place when the crew returns to land and before any of the rescue craft are stood down.
 - v. Attend all officials' briefings to brief those present on the safety procedures and systems.
 - vi. Advise the Event Director to postpone, cancel or reschedule one or more races, or the competition as a whole, should a change in weather and/or water conditions or any other factor constitute, in the opinion of the Safety Officer, a hazard to the health and safety of the competitors, officials or spectators.

4.2 Vessel marshal

For vessel-related events, there should be vessel marshals whose role is to supervise the crews in the crew assembly area and ensure that all vessels, normal operating equipment, and safety equipment conforms to the event rules, local boating regulations and other specific safety rules that may relate to an individual event.

5.0 Vessel (craft/boats) related sporting events

5.1 Rescue and/or recovery of persons should be a priority over any other consideration for the vessel.

5.2 All vessels should be checked to ensure the boats, normal operating equipment and all requisite safety equipment are in good working condition before and after each race.

5.3 Crew requirements

- a. Crew should have the prerequisite qualifications.
- b. The crew for each and every vessel should be able to swim in accordance with the prerequisite qualification(s).
- c. For competitions where swimming is not a prerequisite and where a competitor cannot swim, an appropriate buoyancy vest should be worn, appropriately fitted and in good working condition.
- d. The crew for each and every vessel should be logged, in their correct uniform and assigned to the correct vessel.
- e. Each crew should be embarked and disembarked safely.

5.4 Buoyancy aids

- a. Appropriate buoyancy aids should be available and worn.

- b. Where the rules of the sport do not require a buoyancy aid to be worn, yet one is available, the aid should be checked prior to the start of the event to ensure it is readily accessible.
- c. Where the rules of the event require a buoyancy aid to be worn, it should be inspected prior to the start of each event to ensure it is the correct aid, it is in good working order and that it is fitted correctly.

5.5 Collision avoidance

Vessels should be separated at the commencement of an event such that vessel collisions are minimised. Separation distances should take into consideration any oars, paddles or vessel outriding fittings.

6.0 Sport safety evaluation

All aquatic sporting events should be evaluated to review the safety procedures and determine suggested improvements for any similar future event.

7.0 First aid guidelines for single and multi-discipline events

7.1 Medical station to be provided at finish area.

7.2 Medical stations should be situated at every changeover point and a maximum of 4 km apart in a run section. These stations should provide:

- Shaded areas
- Drinks and food
- First aid personnel with first aid kits and quantities of ice and water
- First aid equipment such as oxygen and resuscitation unit(s)
- Communications equipment such as radio or telephone

7.3 Mobile phones and/or other communications are to be available. There is no need to have both radio and phones if other support systems are in place, e.g. if there is radio contact with the radio room, then this will negate the need for a mobile phone.

8.0 Application to water safety organisations for water safety supervisory services

All persons and organisations wishing to seek assistance from water safety organisations such as Surf Life Saving Australia (SLSA) should submit a completed application form similar to that provided in Appendix 2 well in advance of the commencement date of the event.

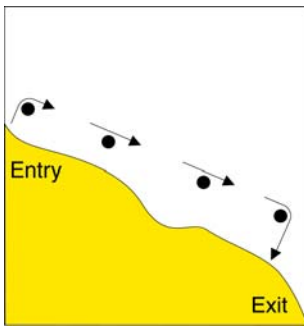
9.0 Course type and distance

When planning a course for your race, it is important to ensure the following key issues.

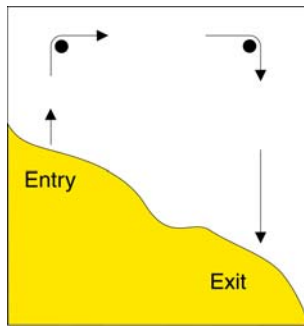
9.1 Course type

The type of the course must suit the local environment. It must be friendly to spectators and allow a safe environment for competitors. The following are suggested formats for swim races or swim legs of multi-sport events.

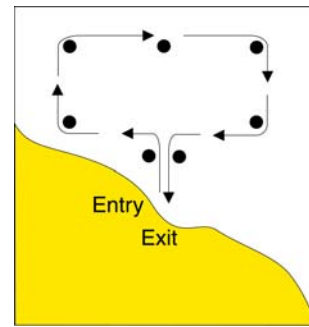
Straight Line Course



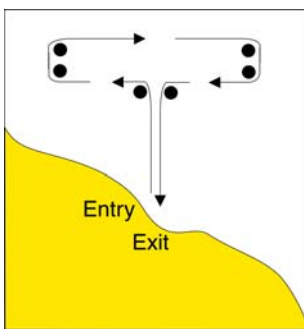
Inverted "U" Course



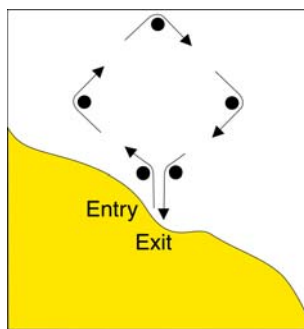
Box Course



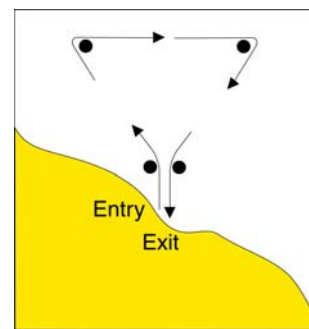
"T" Shaped Course



Diamond Course



Triangle Course



9.2 Competitor safety

There should be sufficient separation between the entry and exit course markers to ensure the outgoing and incoming competitors (swimmers and/or paddlers) do not collide.

9.3 Course distance

- a. The race distance is entirely up to the discretion of the organising committee. It is recommended that mass participation swims are between 1 and 1.4 km. It is extremely important to accurately measure the course to ensure the advertised distance is true.
- b. Race courses can be measured using a handheld GPS unit. Most GPS units are accurate to 10 m and therefore offer a reliable source of distance. Alternatively, mapping software such as OziExplorer™ can be used to mark swim can/buoy waypoints that can then be uploaded to a handheld GPS for accurate laying of buoys.

9.4 Special considerations

When planning the course layout, there are a number of special considerations.

a. *Tidal issues*

- The race may be dictated by the tide.
- If the location suffers from a large tidal range, there may be a significant change in race distance between high and low tide.
- All day races may need to alter the race buoys to maintain an even race distance as the tide changes.
- Tidal predictions up to 12 months in advance can be found at:
<http://www.ntf.flinders.edu.au/>

b. *Current speed*

Locations that experience a rapid current or tidal speed may only have a short window in which to stage the event.

- c. *Water quality*
 - The position of a course should be dictated by water quality.
 - This is a potential major safety/health concern and needs to be considered.
 - Courses should not be located near stormwater drains or effluent outflows.
- d. *Water safety access*
 - There needs to be easy access for water safety.
 - Inflatable rescue boats (IRBs) must be able to be launched and landed on the beach in close proximity of the race start and/or finish.
 - Support and medical services need to have access to these IRBs in an emergency situation.
 - Additionally, shore-based water safety spotters need to be able to view the course from vantage points.
- e. *Communication*
 - There needs to be clear communication between water safety personnel and race command.
 - If a course is located at the base of cliffs or around bluffs/headlands, communications will be affected.

10.0 Water safety ratio guidelines for normal lifesaving events

The water safety ratios and requirements for aquatic events (considered normal activity of a lifesaving organisation) should be as outlined in their normal operating procedures and/or manuals.

11.0 Water safety ratio guide

The following are recommended guidelines for water safety ratios and support at multi-discipline and endurance events such as triathlons, biathlons, long-distance swims and board/ski paddles, and marathon boat rows.

Table GO1321.1. Water safety required for shorter swim distances

Distance		0.5 km Swim					
Course Shape		U	■	—	▲	◆	T
Numbers*	Craft						
0–50	IRBs	1	1	1	1	1	1
	Boards	3	3	4	3	3	3
51–150	IRBs	1	1	1	1	1	1
	Boards	3	3	4	3	3	3
151–250	IRBs	2	2	2	2	2	2
	Boards	5	6	6	5	5	5
251–400	IRBs	2	2	3	2	2	2
	Boards	5	6	6	5	5	5
401–600	IRBs	3	3	4	3	3	3
	Boards	6	6	7	6	6	5
601–800	IRBs	4	4	5	4	4	4
	Boards	6	6	7	6	6	6
801–1000	IRBs	5	5	6	5	5	5
	Boards	7	7	8	7	7	7

* Numbers of swimmers in the water at any one time.

Table GO1321.2. Water safety required for longer distances

Distance		1.2 km Swim					
Course Shape		U	■	—	▲	◆	T
Numbers	Craft						
0–50	IRBs	2	2	3	2	2	2
	Boards	3	3	4	3	3	3
51–150	IRBs	3	3	5	3	3	3
	Boards	4	4	5	4	4	4
151–250	IRBs	5	5	7	5	5	5
	Boards	5	6	6	5	5	5
251–400	IRBs	6	6	8	6	6	6
	Boards	5	6	6	5	5	5
401–600	IRBs	7	7	8	7	7	7
	Boards	8	8	10	8	8	8
601–800	IRBs	8	8	8	8	8	8
	Boards	10	10	10	10	10	10
801–1000	IRBs	8	8	8	8	8	8
	Boards	12	12	12	12	12	12

* Numbers of swimmers in the water at any one time.

NOTE: These ratios are a guide only, and the organisation’s special events committee should have the final decision on water safety numbers.

12.0 Categories of events (for SLSA services use only)

The Categories of involvement in events (normal or special) are as follows:

Category A – Advisory role only

Acting as an official advisor to another person or organisation in the safety aspects of an event, but not including any actual participation in the conduct of the event.

Category B – Assisting an event

Assisting as an official advisor to another person or organisation, other than SLSA, in the safety or aquatic supervision of a swim leg or a triaquathon, etc.

Category C – Conducting an event (for another organisation)

Being responsible for the organisation of an event in its entirety on behalf of another person or organisation, other than SLSA (i.e. assuming full organisational control for a fee for services, etc).

Category D – SLSA event;

A surf lifesaving club, group, branch or state/territory centre acting as a promoter and organiser of the full event, either with or without sponsor involvement.

Category E – Aquatic safety supervision/community education program

A surf lifesaving club, group, branch, state centre, professional lifeguard or proficient and appropriately qualified SLSA member acting as an official advisor and/or assisting in the safety or supervision of an aquatic safety program (e.g. school or community group supervision at a beach).

DEFINITIONS:

Discipline means 'a system of rules of conduct or method of practice'.

Event means 'any one of a series of contests or items in a program'.

Multidiscipline event means 'an event which encompasses multiple disciplines or systems of rules of conduct; in a sporting context, means multiple sporting disciplines, for example, triathlon includes swimming, running and cycling'.

REFERENCES:

Event Management Manual – Mass Participation Swims and Special Events, Life Saving Victoria, 2004.

Special Events Risk Management Plan, Life Saving Victoria, January 2004.

APPENDICES:

Appendix 1. Risk register / action plans for events

Appendix 2. Application for water safety supervisory services

APPENDIX 1. Application for water safety supervisory services

APPLICATION FOR INVOLVEMENT IN A SPECIAL EVENT

1. EVENT DETAILS

NAME OF EVENT _____

START DATE _____ VENUE _____

START TIME _____ am / pm FINISH TIME _____ am / pm

CONCLUSION DATE (if not the same as start date) _____

TYPE OF EVENT:

Triathlon Swim Marathon

Aquatic Safety Supervision e.g. Lifeguard Water Supervision

Community Education Program e.g. School / Community Surf Awareness Lecture

Non-approved Surf Carnival or event (brief description): _____

Other (brief description): _____

ARE PUBLIC ROADS TO BE USED? YES NO

HAS THE EVENT BEEN HELD BEFORE? YES NO

If Yes, when: _____

2. **NAME OF ORGANISATION:** _____

CONTACT NAME: _____

FIRST NAME SURNAME

TELEPHONE BUS: () _____ PRIV: () _____

ADDRESS: _____

Postcode: _____

3. **CATEGORY OF INVOLVEMENT:**

CATEGORY A CATEGORY B CATEGORY C

CATEGORY D CATEGORY E

4. **INSURANCE:** *Attach copy of insurance policy for the event.*

5. SLSA CLUB SUPPORT DETAILS

NAME OF CLUB: _____
CLUB CONTACT PERSON: _____
OTHER CLUBS SUPPORTING: _____
PHONE: (H) _____ (W) _____

WATER SAFETY

NAME: _____
PHONE: _____

MEDICAL / FIRST AID

NAME: _____
PHONE: _____

OTHER: _____

**6. COURSE LEG/S TO BE ASSISTED/CONDUCTED BY THE CLUB/GROUP:
ORDER AND DISTANCE OF LEGS -**

_____ KM
_____ KM
_____ KM
_____ KM
TOTAL EVENT DISTANCE _____ KM
GENERAL DESCRIPTION OF INVOLVEMENT _____

Note: Please Supply Map of Course Layout

7. COMPETITORS / ATTENDEES Approx. Nos.

SLSA MEMBERS ONLY _____
SLSA MEMBERS AND PUBLIC _____
TOTAL (MAX) ENTRIES ALLOWED _____

AGE RESTRICTIONS

MINIMUM (YEARS) _____
MAXIMUM (YEARS) _____

8. SAFETY EQUIPMENT-

LIFESAVING EQUIPMENT INVOLVED – (indicate number)

HELICOPTER RESCUE SERVICE _____ OFFSHORE RESCUE BOAT _____

INFLATABLE RESCUE BOATS _____ RESCUE BOARDS _____

SURF SKIS _____ VEHICLES _____

RADIOS _____ FIRST AID KITS _____

AIR VIVA UNITS _____

OTHER RESCUE EQUIPMENT (Specify)- _____

9. TOTAL NUMBER OF SLSA CLUB OFFICIALS / MEMBERS (ETC) INVOLVED: _____

10. TOTAL NUMBER OF:

STATIONS MANNED BY DOCTORS _____

STATIONS MANNED BY FIRST AID PERSONNEL _____

DRINK STATIONS _____

OTHER SPECIFY _____

TOTAL STATIONS _____

Note: Only fill out if in Category E..

11. SLSA INSTRUCTOR/PERSONNEL IN CHARGE:

NAME(S): _____

PHONE: (H) _____ (W) _____

ADDRESS: _____

_____ Postcode: _____

SLSA AWARDS HELD: _____

TYPE OF GROUP

Primary School Secondary School Special Needs _____

Community Group (Specify) _____

No. of Participants in the Group: _____

Special Requirements: _____

12. OTHER NON-SLSA PERSONS/GROUPS INVOLVED

Note: Only fill out if in Category C or D

FIRST AID _____
MARSHALS _____
RADIO COMMUNICATIONS _____
OTHER - SPECIFY _____
TOTAL NUMBER OF PERSONS _____
ARE THESE PERSONS COVERED BY
VOLUNTARY PERSONAL ACCIDENT INSURANCE? YES NO

13. NOTIFICATION / PERMITS / PERMISSION

Note: Only fill out if in Category C or D

HAVE YOU NOTIFIED & OBTAINED PERMISSION/PERMITS FROM THE FOLLOWING BODIES?
YES NO If 'No' When ?

POLICE _____
LOCAL GOVERNMENT _____
TRANSPORT DEPT _____
LOCAL HOSPITAL CASUALTY
DEPARTMENT NOTIFIED? _____
LOCAL AMBULANCE NOTIFIED ? _____
OTHER? PLEASE SPECIFY _____

15. SLSA RACE REFEREE/SAFETY DIRECTOR:

Note: Only fill out if in Category C or D.

WHO IS THE DESIGNATED RACE REFEREE ON BEHALF OF YOUR CLUB ?
(NAME): _____

16. ENDORSEMENT OF CLUB

DATE _____

NAME _____
POSITION IN CLUB _____
SIGNATURE OF ENDORSING OFFICER _____

17. ENDORSEMENT OF STATE CENTRE

DATE RECEIVED: _____ DATE ENDORSED: _____

SIGNATURE OF ENDORSING OFFICER: _____

POSITION IN BRANCH: _____

APPROPRIATE COMMENTS OR CONDITIONS OF APPROVAL : _____

DOES EVENT COMPLY TO SLSA CONDITIONS FOR THE CONDUCTING OF SPECIAL EVENTS?

YES NO

IF NO - WHY NOT?

18. TO BE SIGNED ON DAY OF EVENT

Endorsement of Authorised Officer

I, as duly authorised Officer of Surf Life Saving Australia, have personally inspected all aspects of the listed event in respect to safety criteria requirements.

Approve / Reject (circle) that this event be conducted

NAME OF ENDORSING OFFICER: _____

POSITION: _____

SIGNED: _____ DATE _____ TIME _____

NB: Authorised Officer to sign club and state copy

19. REPORT: Preparation, conduct, future recommendations etc.

END OF APPLICATION FORM

APPENDIX 2. Risk register / action plan for events

RISK		ASSESSMENT			ACTION REQUIRED	
Source factors	Description	Likelihood	Consequence	Level of Risk	Treatment / Procedures	Personnel Responsible
Human	Lack of skill / fitness					
	Sunburn					
	Dehydration					
	Hypothermia					
	Effects of strenuous activity					
	Medical incidents					
	Major incidents					
Environmental	Hazards on the beach					
	Swell / Currents					
	Wind					
	Weather					
External	General boating					
	Traffic congestion					
Administration	Results system					
	Event Declarations					
	Event Reporting					
	Communication					

Assessor/Auditor:	Completion date:	Checked by:	Signature:
Actions completed by:	Completion date:	Checked by:	Signature: