



**SAFE WATER SPORT EVENT
MANAGEMENT IN SOUTH AFRICA:**

PRINCIPLES & GUIDELINES

01. FORWARD BY NSRI CEO, CLEEVE ROBERTSON

NATIONAL SEA RESCUE INSTITUTE

Sea Rescue is a charity that saves lives on South African waters, through Education, Prevention and Rescue.

Education: A team of water safety instructors visit schools to teach children what to do in an emergency and give them confidence to initiate bystander Hand-Only CPR while they wait for an ambulance to arrive. This project targets disadvantaged youth, because statistically they are at risk. NSRI also host an online learning portal called BravoBravo where they share training material with the public.

Prevention: Sea Rescue's drowning prevention strategy is to partner with other organisations to raise the profile of water safety in South Africa; this includes the media, local

government, schools and other rescue organisations. Interventions include Emergency Signage, Pink Flotation Buoys, NSRI Lifeguards and deploying additional personnel on beaches to proactively patrol and educate.

Rescue: Sea Rescue bases are run by over 1 000 highly skilled, unpaid volunteers who are on standby day and night throughout the year. The volunteers save a salary bill in excess of R300M per annum. They have rescue bases around the coast and on inland dams, a fleet of rescue boats, rescue vehicles, quad bikes and launching tractors. They enjoy a good working relationship with other emergency services and believe that it is through team effort that lives are saved.



02. INTRODUCTION

It is in the context of team effort and collaboration that Sea Rescue identified the need for a water sports event safety guideline for South Africa. Currently water sports events in South Africa are un-regulated except for broad parameters applied via SAMSA and its Authorised Agencies under the National Small Vessel Regulations and some sporting bodies who have developed their own protocols and guidelines for events.

Whilst recognising that many sporting bodies, event organisers and clubs have worked exceptionally hard with their own safety and emergency planning, this document aims to provide a comprehensive guideline and “best practice” recommendation for water sport events across all disciplines. It is a document aimed to encourage better safety planning and emergency response and we hope it will become an aid in planning, executing and reviewing water sport events to promote safer practices and prevent the loss of life.

Strongly driven by a “bottom up” approach, in the compilation of the guide, various sporting bodies, clubs, event organisers and individuals were consulted. Their willingness to share their experiences and recommendations to inform this guideline was humbling, and it is testament to a national commitment to safety on the water.

We would like to acknowledge and thank the following organisations and individuals for their contributions to the guide:

- Canoeing South Africa
- Diver Alert Network
- Natal Canoe Club
- Rowing South Africa
- South African Kiting Association
- South African Deep Sea Angling Association
- Surfing South Africa
- Triathlon South Africa
- Arthur Roslee
- Brad Geysler
- Carl Krause
- Clifford Ireland
- Colin Simpkins
- Dawid Mocke
- Derrick Frazer
- Geoff Bettison
- Greg Bertish
- Herman von Velze
- Johnny Albert
- Morne Christou
- Phil Ress
- Richard Kohler
- Robin de Kock
- Robin Tindall
- Steve Botha
- Vanessa Davidson
- Wendy Wright
- William Walton

There is always a significant level of risk in water related activities, but this guide aims to provide organisers with the tools to manage the risks and takes a balanced view of the cost effectiveness, fairness, consistency and risk controls measures needed at water sport events.

Ensuring responsible and safe practices, reducing the likelihood of an accident, minimizing the inherent risks of the water sport activity, reducing the possible consequences in the event of an accident, and knowing what resources to deploy in the event of an emergency are the aims of this guide.

03. SCOPE

The guidelines are relevant to public water sport activity. The main activities referenced in the compilation of the document were open water swimming, triathlon, surfing, rowing, canoeing, stand up paddle boarding, surf skiing (including downwind racing), kite boarding, power boat racing, diving and competitive fishing. The guide takes consideration of both inland and coastal waters. The information is intended as a guide to managing safety at a water-based event.

This guide does not cover any land-based aspects of an event, only the water component. There is legislation for land-based events and this legislation must be complied with by all event organisers.

There is no compulsion to follow the guidelines and nor is there a single 'best practice' approach. The use of words such as 'should', 'could', 'good' or 'best practice' are the opinions of the authors of the document and do not carry any legal compulsion. Where there are existing laws and regulations which may apply, we highlight them in the legal context section, for consideration by organisers. Organisers may also obtain information from organised sporting bodies recognised by the Department of Sports and Recreation in South Africa where there may be local arrangements and specific permissions required, or from the South African Maritime Safety Authority (SAMSA).

The information in the guide was developed using interviews with various stakeholders, review of leading events in South Africa, and desktop research. In the compilation of the guide, sailing, dragon boat racing, windsurfing, water-skiing, light tackle fishing and lifesaving were not directly consulted.

04. ACRONYMS

| | |
|---------|--|
| ARCC: | Air Rescue Co-ordination Centre |
| ASR: | Air Search and Rescue |
| CAA: | Civil Aviation Authority |
| COC: | Certificate of Competence |
| COF: | Certificate of Fitness |
| EMS: | Emergency Medical Services |
| MRCC: | Maritime Rescue Co-ordination Centre |
| MSR: | Maritime Search and Rescue |
| PFD: | Personal Flotation Device |
| PWC: | Personal Water Craft |
| RPAS: | Remotely Piloted Aircraft System |
| SABS: | South African Bureau of Standards |
| SADSAA: | South African Deep Sea Angling Association |
| SAIS: | South African Institute of Skippers |
| SAMSA: | South African Maritime Safety Authority |
| SANDEF: | South African National Defence Force |
| SANS: | South African National Standard |
| SAPS: | South African Police Service |
| SAS: | South African Sailing |
| SASCA: | South African Small Craft Association |
| VOC: | Venue Operations Centre |



A **water-based event** is defined as a formal planned public or social occasion, for example a sports competition that takes place on water.

05. LEGAL CONTEXT

All event organisers in South Africa must comply with relevant legal obligations. The total legal framework is too broad to be covered in detail in this guideline and this is not a definitive legal document, but organisers should make themselves aware of the statutory environment in which they operate and ensure that they comply with the legislation.

The South African Bureau of Standards (SABS) has developed a South African National Standard “Health and Safety at events – Requirements” (SANS 10366:2015 Edition 2.2). The standard specifies responsibilities, standards and planning with respect to the following key areas when organising events: health and safety, safety planning, risk assessment, planning and management, venue and site design, fire safety, incident planning (emergency planning) and communication. In Section 25, the standard covers requirements for “Events on, at or near water” and **must be considered in addition to the principles and guidelines given in this document**. The standard also has direct relevance to water sport events that may also have a land-based component, such as Triathlon events.

There are other National Acts and Standards that may apply depending on the nature of the event. For example, the Occupational Health and Safety Act (Act No. 85 of 1993), the National Sport and Recreation Act (Act No. 110 of 1998 and the Amendment Act 18 of 2007) and the Safety at Sports and Recreational Events Act (Act No. 2 of 2010), the Mass Gatherings Act Regulation 9 for events deemed high risk or for 800 – 1000 people.

There are also statutory and municipal laws with respect to event permits, noise and light pollution, emergency, fire and others. On certain inland waters and beaches, permission is needed from local authorities and the South African Police Service to hold events. For beach events there is a SANS standard entitled “Water safety signs and beach safety flags – Part 1: Specifications for water safety signs used in work places and public areas” (SAN 20712 – 1: 2008) for event organisers operating in a beach environment.

For event organisers who make use of drones for security and monitoring there is legislation governing the use of RPAS (Remotely Piloted Aircraft System) or drones in South Africa. The laws align with global standards and ensure the safe operation of drones, protecting both manned aircraft in the sky and the public on the ground, or in the water. Regulated by the CAA (Civil Aviation Authority) the relevant operating certificate, air service licence, registration of drone, pilot licence and letter of approval must be sourced.

The South African Maritime Safety Authority (SAMSA) is the legal entity responsible for safety at sea and on inland waterways. The Merchant Shipping Act (Act No. 57 of 1951) is the broad framework document governing the maritime sector in South

Africa. The Act is under review and a draft Merchant Shipping Act was compiled by the Department of Transport in 2018.

The SAMSA National Small Vessel Safety Regulations of 2007 provide the regulatory framework for boating on inland waters and at sea (as of October 2018). Municipalities and other local authorities or clubs may have additional requirements related to safe boating.

The SAMSA small vessel regulations apply to sport and recreational boats and licenced vessels of all sizes operating on inland waters. For sea-going vessels it applies to pleasure boats of less than 100 gross tonnes (approximately 24 metres in length) and licenced (commercial) vessels of less than 25 gross tonnes (approximately 14 metres in length). Owners of licenced (commercial) vessels must apply for licencing and submit their vessels for a survey at a SAMSA office.

As event organisers, it is important that any boats used for an event comply with the SAMSA regulations, have valid Certificates of Fitness (issued annually by SAMSA or Authorised Agencies on behalf of SAMSA), hold valid buoyancy certificates (Marine Notice 8 of 2012) and all skippers operating a boat hold a valid Certificate of Competence relevant to the category of operation and an authorised radio operators licence. The boat must carry all the correct safety equipment specified for the category of operation and no skipper may handle a boat without a kill switch attachment.

SAMSA CATEGORIES OF OPERATION

- A: Any distance from shore
- B: Less than 40 nautical miles from shore
- C: Less than 15 nautical miles from shore
- D: Less than 5 nautical miles from shore
- E: No more than 1 nautical mile from shore and 15 nautical miles from an approved launch site
- R: Operating solely on sheltered (inland) waters

SAMSA recognises certain organisations as “Authorised Agencies”. In terms of the National Small Vessel Safety Regulations, these bodies are permitted to publish written rules and criteria with respect to controlled events that they run, and they get permission from SAMSA for such events to take place.

Currently (2018), the Authorised Agencies are: SA Sailing (SAS), South African Deep Sea Angling Association (SADSAA), South African Small Craft Association (SASCA) and South African Institute of Skippers (SAIS) and Canoeing South Africa (CSA). However, there are only a certain number of water sport events that are covered by the SAMSA regulations in terms of compliance with Marine Notice 13 of 2011.

05. LEGAL CONTEXT

EXCERPT FROM MARINE NOTICE 13 OF 2011

One of the functions of an authorised agency is to grant approval for the hosting of 'controlled events' in terms of Regulation 33, quoted below:

Exemption in respect of controlled events;

(1) Subject to sub regulation (2), the owner and skipper of a vessel that participates in an approved controlled event in the Republic or in the territorial waters of the Republic are, in respect of such vessel and for the duration of the event, exempt from these regulations.

(2) Application for the approval of a controlled event must be lodged with the Authority or the relevant authorised agency not later than 10 days before the intended date of the event, unless waived by the Authority or authorised agent and must be accompanied by full details of the event and of the rules and manner of supervision, including safety measures, to be applied and by the other particulars that the Authority may require.

(3) The Authority or authorised agency may extend a standing approval under sub regulation (2) for any controlled event subject to such conditions as are considered appropriate by the 59 Authority or authorised agency and may at any time on reasonable grounds revoke such approval".

"Controlled event" means a competition, event or regatta organised by a governing body or authorised agency, or a club or an organisation affiliated with a governing body, and includes:-

(a) activities to prepare for the event that take place at the venue for the event and during the times specified by the organiser of the event;

and

(b) practice for the event under the supervision of a coach or an official approved by a governing body or authorised agency, or a club or organisation affiliated with a governing body.

"Authorised agency" means a governing body, club or organisation designated under Regulation 30(1).

A sample list of some of the legal documents event organisers may like to reference (note: this is not a definitive list and new laws may come into effect after the publication of this guideline.)

"Health and Safety at events – Requirements" (SANS 10366:2015 Edition 2.2)

"Water safety signs and beach safety flags – Part 1: Specifications for water safety signs used in work places and public areas" (SAN 20712 – 1: 2008)

City of Cape Town: Events By-law. Provincial Gazette No. 6630 of 22 May 2009, amended by Events Amendment By-law 2009 on 9 December 2010, amended by Events Amendment By-law 2016 on 19 August 2016.

Ethekwini Municipality: Beaches By-law. Provincial Gazette No. 1523 of 12 October 2015.

National Health Act (Act No. 61 of 2003): Regulations relating to emergency care at mass gathering events (2017)

National Sport and Recreation Act (Act No. 110 of 1998)

Occupational Health and Safety Act (Act No. 85 of 1993)

Regulation of Gatherings Act (No. 205 of 1993)

Safety at Sports and Recreational Events (Act No. 2 of 2010)

SAMSA Marine Notice 13 of 2011

SAMSA Marine Notice 8 of 2012

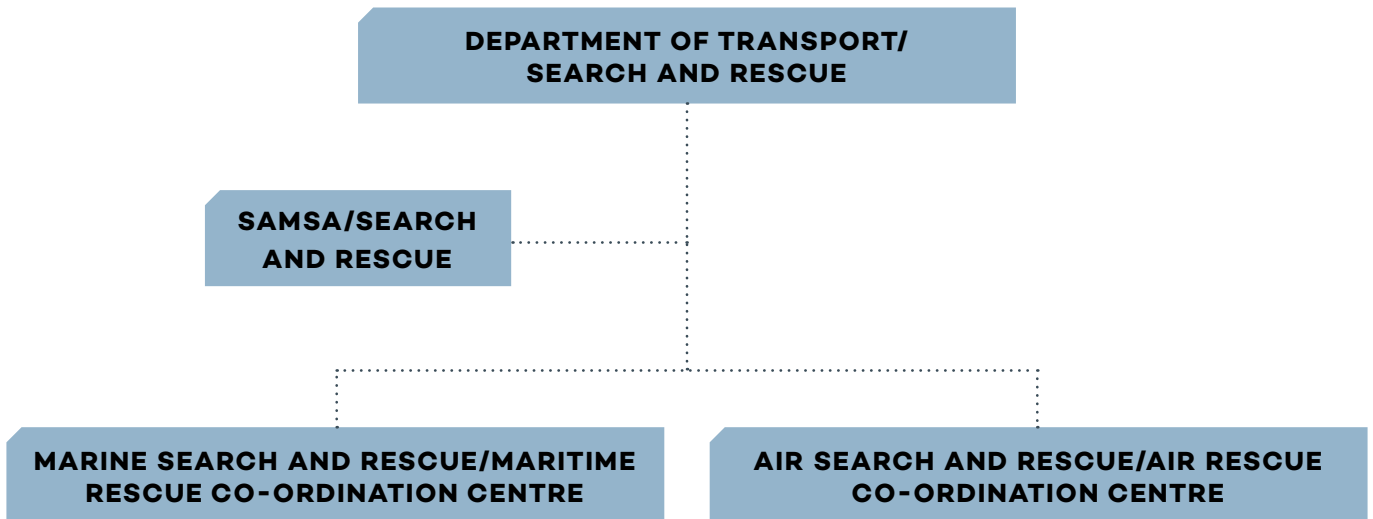
SAMSA National Small Vessel Safety regulations of 2007

The Merchant Shipping Act (Act No. 57 of 1951)

It is vitally important that everyone involved with the event is aware of their legal obligations and arrangements are made to satisfy these and ensure the event is safe and enjoyable. These may include any of the following and some of these roles may be shared: landowners, event organisers, safety advisors or committees, safety officer, volunteers, participants and spectators.

06. MARINE SEARCH AND RESCUE STRUCTURES

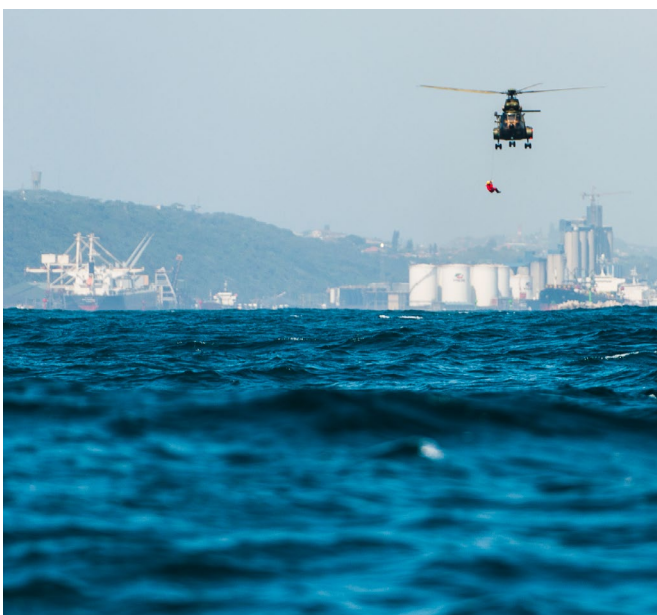
In South Africa there are established Marine Search and Rescue structures in place and South Africa is responsible for maritime safety for the entire SA Coastal area and the jurisdiction extends down to Antarctica.



As an event organiser, it is important to understand the context within which NSRI operates. NSRI is one resource used by MRCC/SASAR and NSRI has a national structure with seven regions and stations located within those regions.

Other supporting organisations for maritime search and rescue operations in South Africa include: National Ports Authority, South African Police Service (Public Policing, Airwing, Waterwing, Diving), South African National Defence Force (Army, Navy, Air Force), Emergency Medical Services and Provincial and Municipal structures (Ambulance services, Fire departments, Disaster Management, Traffic Department).

There are also associated organisations that can be asked to assist: Metro, Wilderness Search and Rescue, 4x4 clubs, Radio Ham clubs, Coast Watchers, Volunteer and Private Medical services, SA Lifesaving etc.



07. VENUE OPERATIONS CENTRE (VOC)

A critical component to managing a water sports event is integrated control and management of the event. This takes place under the auspices of a VOC, which is an integrated team that plans and operates as a unit before, during and after an event. This is a centralised management unit responsible for all safety and associated resource management for immediate and relevant decision making for the event.

Very importantly, the VOC ensures that decisions taken for the event are based on all role players and not one person's point of view. This removes any subjectivity from the event planning and management and the VOC committee should be the final arbiter of whether an event takes place or not.

WHO SHOULD SIT ON THE VOC COMMITTEE?

A balanced committee of relevant stakeholders should comprise the committee and it can be as large or small as the size of the event dictates. Possible stakeholders to consider for the VOC are: The Safety Officer, Event organiser, Water sport discipline experts or judges, Medical personnel (mobile and static), NSRI, Lifesaving SA, Safety and Security, Disaster Management and Communication experts. Every person on the Committee must have agreed areas of responsibility and there must be a clear directive on who takes the co-ordinating role at sea/on the water should an incident occur.

The VOC Commander/Co-ordinator should be agreed by the Committee and should fulfil any legislative requirements for this post as laid down at the time of the event.

If NSRI is not on the VOC committee for the event, the event organiser/VOC co-ordinator must agree with NSRI and other response role players, what must happen if things do not go according to plan or an accident occurs that requires additional resources beyond the operational and contingency plan referenced below.



GUIDELINES FOR THE VOC

(Adapted from the Safety at Sports and Recreational Events Act)

1. Appointment of a VOC co-ordinator who is experienced in the water sport discipline and event management. The co-ordinator should, where reasonably possible, not be changed prior to or during the event.
2. The VOC co-ordinator may be assisted by a radio operator on the day.
3. The planning and communication protocols must be in place for the event.
 - 3.1 Finalise the VOC operational and contingency plan 14 days prior to the event and circulate it to the VOC committee for familiarisation and signature prior to the event.
 - 3.2 The plan must be legible and graphically visible at the VOC during the event.
 - 3.3 The plan must contain the following:
 - A detailed 2-way radio communications protocol for everyone represented in the VOC
 - A clear and concise VOC chain of command communication protocol
 - A clear and concise decision-making matrix to address safety incidents
 - A detailed delineation of the respective roles and responsibilities of all involved
 - A clear and concise VOC crisis communication plan and protocol
 - 3.4 The VOC must be in a position where they have the best possible un-obstructed view of the event.
 - 3.5 The VOC must compile a comprehensive written event debrief report within 30 days of hosting the event.

Appendix 12.4 provides further guidelines on the VOC technical specifications taken from the Sports and Recreational Events Act No. 2 of 2010

08. EVENT PLANNING

In order to plan a safe water sport event, the event organiser needs to have arrangements in place to be able to answer these questions at each key stage:

WHAT?

WHERE?

WHEN?

WHO?

WHY?

WHAT?

NATURE AND SIZE OF THE EVENT

There are a wide range of water sports events held in South Africa every year. Some of them are governed by organised Sporting Bodies and Federations who have established protocols and procedures governing the events. International rules and protocols also apply to competitive Olympic water sports.

However, for many of the water sport events in South Africa, there are no established guidelines and it is up to the organisers to develop safety plans and emergency plans. Many of these need to be specific to the type of event. For example, considerations for a kiteboarding event in the ocean, will be vastly different to a long-distance river paddling event inland.

Some events will be competitive, whilst others are fun or social events. Some events generate revenue for organisers, whilst others might be local fundraisers.

Events can be complex with multiple stakeholders and it is important to understand who has jurisdiction and responsibility at different stages. For example, an organisation may own an event, for which they receive corporate sponsorship and they contract out the event management to an organiser, who in turn contracts with independent medical

units, boat owners, lifesavers etc. It is important to be clear who is legally responsible for the event and what happens if stakeholders do not meet obligations?

IDENTIFY THE KEY ELEMENTS OF YOUR EVENT

Is it a sporting or community event?

Is it a regular event, an annual event or a once off event?

Is it competitive, participatory or for demonstration purposes?

Is it local, provincial, national or international?

DIFFERENT ELEMENTS WILL RESULT IN DIFFERENT RISKS

The size of an event can also be viewed very differently and it will have a significant impact on safety planning.

On land, the City of Cape Town Events Bye-law categorises an event with 200 – 2000 participants as small and a large event as over 5000 participants. However, for a water-based event size categorisation will be very different as the inherent risks are much greater. One also needs to consider the number of spectators and whether they are on the water or on land.

Table 1: Hypothetical example of different events and size considerations

| NUMBER OF PARTICIPANTS IN OR ON THE WATER | NUMBER OF SPECTATORS ON THE WATER | NUMBER OF SPECTATORS ON THE LAND | LOCATION AND EVENT | CONDITIONS | SIZE OF EVENT |
|---|--|----------------------------------|---|--|------------------|
| 7 x Volvo Ocean 65 Class Sail Boats | 10 x charter boats with >30 pax per boat <i>Estimate:</i> 20 x private sailing boats with av. 5 pax per boat <i>Estimate:</i> 30 x private power boats with av. 3 pax per boat <i>Estimate:</i> 10 x PWC with 1 pax | 100 pax on the Breakwater | Table Bay, start of the Volvo Ocean Race Leg | Wind >20 knots Chop 0.2m | Large |
| 4 x Surfers | Nil | 30 pax on the beach | Jeffreys Bay, Sanctioned Surf competition | Wind < 10 knots Swell 1.5m Water temp 18C | Small |
| 50 x surf skis | 2 x private power boats with av. 4 pax per boat | 30 pax at the launch site | 27 km sanctioned surf ski race around Robben Island | Wind > 15 knots Swell 0.8m Chop 0.2m Water temp 12C | Medium/ Large |
| 10 x rowing boats | Nil | 40 pax on the shore | 2000m sanctioned race on Germiston Lake | Wind < 5 knots Flat water Water temp 22C | Small |
| 80 x cold water swimmers | 100 x support boats with av. 3 pax per boat | 250 pax on the shore | 7.5km sanctioned swim from Robben Island to Big Bay | Water temp <15C Wind, swell and chop variable | Large |

08. EVENT PLANNING

WHERE?

INLAND WATERS, COASTAL, OPEN OCEAN

Where your event takes place has a direct impact on your safety planning, as different environments and situations will require different risk mitigation and resource deployment. For example, a triathlon ocean swimming event taking place in a surf zone requires lifeguards trained to rescue people in a surf zone. An inland river paddling event will often have man made obstacles that may require a diver to be stationed at the obstacle.

There are problems associated with a dam. It's zero visibility if someone goes down. You don't see what's underneath like submerged obstacles.




Table 2: Example of different risks

| INLAND WATER | COASTAL WATER | | |
|--------------------------|---|-----------------------------|-------------------|
| Dams | Rivers | Surf zone and Shallow water | Open water |
| Crocodiles/snakes/hippos | Bridges | Backwash | Boat traffic |
| Debris | Crocodiles/snakes/hippos | Beach conditions | Currents |
| E coli | E coli | Crime | Fog |
| Lightning | Flash floods | E coli | Lightning |
| Pollution | Gorges | Jellyfish/blue bottles | Sharks |
| Shore conditions | Lightning | Lightning | Water temperature |
| Sluice gates | Pollution | Rip tides | Wave height |
| Underwater hazards | Power lines | Rocks | Wind |
| Visibility below surface | Rapids, Eddies, Whirlpools, | Seaweed | |
| Water depth | Pool drops | Sharks | |
| Water hyacinth | Reed channels | Spring tides | |
| Wind driven waves | Security/theft/stoning | Water temperature | |
| Power lines | Siphons, Waves and holes | Wave height | |
| | Strainers (trees, fences, cables, rope, fishing nets) | | |
| | Undercuts | | |
| | Weirs and waterfalls | | |



08. EVENT PLANNING

WHEN?

TIMEFRAMES

You need to start planning several months before the event. Where you require permits and licences from your local municipality you will need a longer lead time for your event.

- Don't assume that a permit or licence approval means you have adequately addressed your risk assessment, safety planning and emergency planning.
- In the event of an accident you will need to prove that you have done everything in your power to assess and mitigate all risks associated with your water sport event. A permit approval is only a part of your safety planning.
- There is a growing tendency to institute legal action when injuries occur, and it can be alleged that event organisers were negligent, and duty of care was not demonstrated.
- Don't assume that if you have NSRI and Lifeguards at your event that you have a safety plan.

TIMEFRAME 6 MONTHS +



- Develop an event concept. Identify your aims, objectives and benefits, where you will hold the event, the resources you will need and a rough action plan
- Identify the key organising roles you will need from start to finish to establish your VOC.
- Apply for the necessary permits from the local municipality, SAMSA, SAPS, SAN Parks and other statutory bodies. (This will depend on the size of your event and where it is being held in the country). Also consider that the coastline and inland waters are owned by different entities and high and low water marks also define jurisdiction in some cases.
- Appoint the relevant medical personnel so that they can apply for a medical plan/operational plan for the event.
- Start to identify significant safety issues such as novices in the water, possible extreme weather conditions such as lightning, spectator crowds, security threats, water quality, alcohol etc.
- Talk to other people who have run similar events and learn from their experiences. Ask for specialist advice on areas you are not familiar with eg medical response requirements.
- Check that your dates don't clash with other events in your area and that expected weather is in line with your needs.
- Have a Plan B for conditions that cannot be determined 6 months before the event such as weather.
- Develop a preliminary budget (How will you fund, market and pay for necessary resources at the event?)

This should answer your what, when, who and why parts of your plan. The how will part will be more flexible.

If you are negligent you can be held liable.



BALANCING BUDGET AND RESOURCES

As an event organiser you are legally obligated to run a safe and well-resourced water sport event.

This is not easy when:

- the cost of resources is high
- sponsors don't always understand the cost of safety
- participants don't always appreciate the cost of safety interventions



You must have adequate safety measures in place

HOW CAN YOU EDUCATE PEOPLE ABOUT THE IMPORTANCE AND COST OF SAFETY RESOURCES?

It not worth the loss of life or injury for people to be uninformed

08. EVENT PLANNING

TIMEFRAME

3 MONTHS +



- With your VOC committee start to finalise your event management plan (who is responsible for what, how and when will resources be deployed, what are your reporting structure and communication plans and what are your emergency plans).
- Check there are no significant changes to the location you have chosen and physically check the site yourself. If you need to erect physical infrastructure on the shore, ensure you have the necessary permissions and plans passed for safety purposes.
- Confirm the numbers of volunteers and staff and ascertain everyone's qualifications and experience to deal with their area of expertise.
- If you need boats and jet skis check that the boats have current Certificates of Fitness where needed and that the skippers have a current Certificate of Competence.
- Check that your insurance cover is adequate.
- Verify your competitor/participant abilities and if medical checks are required ensure they are done and documented. Remember your safety plan must be targeted at your weakest competitor/participant.
- After this point, you should not be making any big changes to your plan and you now move into the delivery phase of your plan.

We have more problems in the entry level groupings



TIMEFRAME

6 WEEKS



- Check on any emerging weather or environmental issues such a sea state, water quality, blue bottles, dam levels, spring tides etc.
- Make sure your participants have all the information they need on travel, parking, equipment, support resources, security, briefing times and equipment checks etc. Officially sanctioned Whats App groups and Facebook are useful for conveying information.

Don't be caught out after the fact when competitors/participants say, "You didn't tell us". The onus is on you to ensure they receive information be it by direct email, social media, SMS, or a website.

Remember, a website change without a notification to participants often goes unnoticed.

TIMEFRAME

2 WEEKS



- Confirm that all your resources are still available (officials, marshals, safety officers, lifeguards, boats, infrastructure set up etc).
- Circulate your operational plan to the VOC Committee for their approval and signature.
- Ensure your VOC infrastructure and technical specifications are in place.
- Finalise your competitor/participant list and their profiles. Get indemnity documentation signed.
- If you are doing a staggered start, finalise the groups according to ability.

Indemnities and disclaimers cannot be used to off-load risks that are your responsibility or statutory obligation.

Courts will not always uphold indemnities and disclaimers. Always seek legal advice about developing and using indemnities and disclaimers.

08. EVENT PLANNING

TIMEFRAME

1 WEEK



- Confirm that everything is in line with your management plan and that the risk mitigation measures are in place.
- Monitor the weather and local conditions to see if you potentially need to make course changes.
- Confirm all your support resources are still in place and if possible, do a drill or simulation of the event plan. Make sure everyone understands their roles, their limitations and very importantly the communication plan.

You need a backup plan when the weather doesn't play ball. The weather and conditions dictate the day.



TIMEFRAME

ON THE DAY



- Make sure your VOC is in place and all the committee representatives are present.
- With the VOC committee do a final weather and course evaluation against your risk assessment matrix (lightening monitors, water temperature tests, sea state, wind factors, shark activity, security threats etc).
- If the risk assessment indicates a high level of danger for participants, the VOC committee must collectively decide to cancel the event. This is not an easy decision to take and it can be taken at any time during an event, should conditions worsen, or your risks increase significantly.
- Brief all your safety resources/people according to the event plan. Make sure they all have the necessary communication equipment (VHF, whistles, cell phones etc) they know the communication plan should something go wrong. Everyone must understand their roles and the chain of command from the VOC.
- Brief your participants and do equipment checks if necessary and ensure all documentation is complete.

We have a flow chart and each rescue boat has a copy to follow procedures



- If you accept competitor entries on the day of your event, you may end up with more numbers than you planned for in your safety plan. How will you mitigate this risk?

We have a PA system and a loudspeaker



08. EVENT PLANNING

TIMEFRAME

DURING



- Adopt a “Total Systems Approach” to managing your event through the VOC (Source: NSRI).

AWARENESS

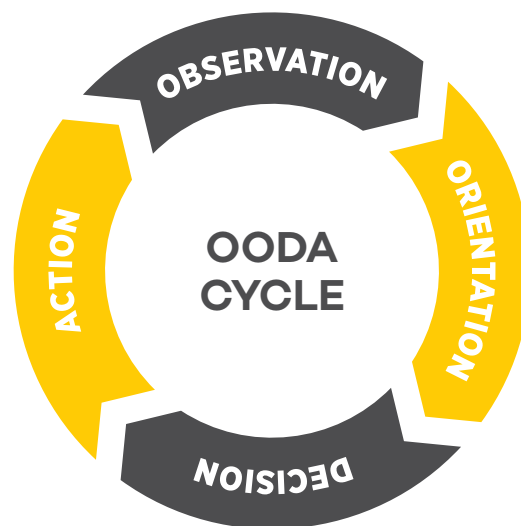
INITIAL ACTION

PLANNING

OPERATIONS

CONCLUSION

- As a VOC, the committee has command and control of all aspects of the event and all communication and orders are centralised through the VOC.



- Monitor the competitors/participants and be prepared to change your plans.
- Maintain direct control of the event.
- Should an emergency arise, there are response phases that should be followed:
 - *Evaluation:* Establish what type of help is needed, where and for how long? What are the critical factors of the emergency? What do you know, what do you not know and how will you get more information? What are the capabilities and endurance of the resources you will deploy?
 - *Deployment:* Quick and clear orders are needed. Anyone responding must be briefed on the situation, the conditions, the state of the casualty, what is expected of them, who else has been asked to help, who will run the operation, what logistical and medical support is available and how communication will take place.
 - *Operation:* The people responding to the casualty/emergency in the water have a clear plan – Search, Find, Rescue, Recover, Secure, Treat, Deliver and Return to VOC.
 - Constant re-evaluation is needed when implementing your emergency plan.
 - End Phase involves recalling all resources, checking they are prepared to respond again and informing necessary people/agencies.
 - Debriefing and reporting on the incident are the final phase of your emergency response
- In the event of a large rescue response, it may be necessary to use multiple resources, such as NSRI, Helicopters, Metro etc. Co-ordinating combined operations requires clear control of operations and the appointment of an on-scene commander on the water and the involvement of MRCC. Best use must be made of all rescue assets and communication protocols with everyone must be clear.

You need a structured flow for rescue craft moving in and out of the danger zone.



08. EVENT PLANNING

TIMEFRAME

AFTER

- Review your event against your plan. What worked and what could have been done better?
- Engage with your resources to discuss areas for improvement.
- If you are running another similar event, use the learnings to modify your event management plan.

WHO?

STAKEHOLDERS, PARTNERS, ROLES, RESPONSIBILITIES

The event organiser or VOC is responsible for safety at a water sport event. The organiser or VOC may employ an event manager, a technical director and a safety manager for larger events. The roles may be combined for smaller events and they could be the same person. It is important to be very clear about everyone's roles and obligations.

Below is a guide to what some of those roles might be and what their duties might entail.

Table 3: Guide for stakeholder roles

| | |
|--|--|
| Land Owners and Water Owners | They are obliged to ensure that activities are carried out safely and without damaging the environment. This means you must seek official approval or permits to carry out an event. They will be governed by a legislative framework that enforces for example certain municipal bye-laws, National Health and Safety Act, the National Health Act, South African National Parks provisions etc. The responsibilities for coastal and inland water sport events will be different. |
| Event Organiser/Venue Operations Centre Committee | This person or committee takes the ultimate responsibility for the event and for ensuring it is conducted safely and legally. |
| Technical Director and Assistant Technical Director | Organised sporting bodies often specify a Technical Director is appointed for a race. His or her role is to ensure the technical and safety requirements are met, but they do not undertake activities that are the responsibility of the event organiser or Race Director. They must be satisfied that the course allows for fair competition. For example, in a triathlon event, he/she should note the location of marker buoys and the presence of safety boats and personnel. |
| Safety Officer | This person ensures that all aspects of the event are conducted safely. They must have experience in water sport events, leadership and seniority. Preferably they should have a safety qualification in addition to their specific water sport experience and should be familiar with all the legislative compliance of on water events. They must have a minimum of 100 hours of rescue experience (SANS 10366:2009). |
| Employees/Resource Personnel | This is anyone acting under the instruction of the Event Organiser, VOC or Safety Manager. They must act responsibly in carrying out their duties and make management aware of safety issues. They must be properly trained in their duties and suitably equipped. |
| Volunteers | As with resource personnel volunteers must accept responsibility for the roles assigned to them and ensure they are adequately trained, prepared and equipped to fulfil their role in the event management plan. |

08. EVENT PLANNING

TECHNICAL REQUIREMENTS

Different water sports will have different requirements in terms of safety response and you may find there are specific considerations when thinking about your safety plan. For example, in kite surfing there are specific methods for catching and landing a kite with an unconscious patient and understanding the Kevlar line danger and release clips on a harness. There are methods for avoiding damage to boats and capsizing. In the surf, there are methods of how-to pick-up people between wave sets. Lifeguards are trained in “scanning” – an active visual technique for observing swimmers’ behaviours and looking for signals that someone in the water needs help.

Ensure that your safety response resources are adequately trained in the technical requirements of the sport.

Going down a river you have numerous obstacles that are far more deadly. River racing is infinitely more risky.



We are moving onto Safetrx. We also have safety on the water.



TAKE THE SEARCH OUT OF SEARCH AND RESCUE FOR FREE

SAFETRX
Tracking you home safely

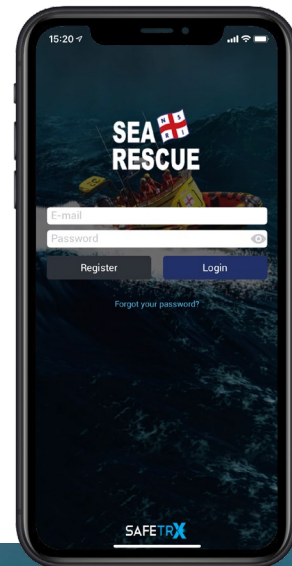
FEATURES INCLUDE:

- An Emergency Call button which allows you to call from the application
- Share your real-time track with family and friends
- Share your current position from the home screen
- Choose individual Emergency Contacts for each user

Download NSRI's free RSA SafeTrx from the Apple App and Google Play



For more info on **RSA SafeTrx** visit: www.searescue.co.za



In South Africa the majority of water users are recreational paddlers, kayakers, boaters, windsurfers, sailors and kite surfers, and the only universal communication device is a mobile phone which makes it common sense to deploy the SafeTrx Smartphone Application as a possible rescue solution.

Dr Cleve Robertson, CEO,
National Sea Rescue Institute (NSRI)



08. EVENT PLANNING

THE ROLE OF THE SAFETY OFFICER/VOC COMMITTEE

- The Safety Officer/VOC Committee is responsible for all aspects of safety at an event. The safety officer should have a Health and Safety qualification and have a significant level of experience in their water sport discipline. (SANS 10366:2009 Ed 2 specifies a minimum of 100 hours rescue experience).
- Assess competence of all people entering the event and identify all novices. (In some cases, such as Iron Man, a medical test is compulsory. For long cold-water swims there is a qualifying standard based on water temperature. In other events which are less strenuous, keeping a database of all entrants and noting their years of experience will be sufficient. Credentials of international participants will also need to be recognised.)
- Conduct/Oversee participant safety pre-check (This includes equipment or vessel inspection {including boat kill switches}, checking individual safety equipment such as lifejackets, cell phones, leashes, wetsuits etc. Make sure you have proof of these checks being done.)
- Have your safety plan on hand.
- Define the event area and ensure other vessels or non-participants don't enter the area.
- Communicate the safety plan to everyone involved.
- Brief all the safety resources on the day and check they have the right qualifications and/or experience.
- Brief all the safety resources on the Emergency Action Plan and if necessary, conduct training or drills to ensure everyone knows what to do.
- Ensure all your resources are clearly identifiable by their uniform/clothing.
- Brief all participants on the day, including their role in the safety plan and anticipated weather or water changes that will impact the event.
- Continually monitor the event against the safety plan and make the necessary changes on the day to ensure the highest level of safety is maintained. (The Safety Officer/VOC Committee must have the courage of his/her convictions and leadership skills even when the decision taken may be unpopular with participants.)
- Should an emergency occur, implement the Emergency Action Plan calmly, quickly and efficiently and ensure all resources are deployed correctly, and communication and control are maintained.
- De-brief the safety team after the event.
- Review and report on any emergencies that arose and amend the safety plan accordingly.
- Handle any press enquiries that may arise as a result of an emergency response

The safety officer assesses the competence of the safety responders and understands the sport and communicates where to be and how to conduct themselves.



Who's the head chef? Who's making the call on safety?



PARTICIPANT RESPONSIBILITY

Everyone taking part in a water sport related activity has some level of responsibility for ensuring their own safety. For example, they follow best practices set down by sporting bodies, their equipment is maintained and in good order and they are not impaired by drugs or alcohol.

Some water sport events are higher risk than others such as Freestyle kite surfing, Downwind ocean paddling and Powerboat racing. It is important to balance participant self-reliance and management interventions.

Having a check-list of participant readiness can be useful, or at least an overview of the number of novices and experts at your event. Some sports require a proficiency test as part of their protocol.

Remember that children's risk perception is not fully developed and if you are working with children your risk mitigation will be different.

Some people over-estimate their ability. For example, it is documented that young men in swimming events are more likely to over-estimate their ability than other demographic groups. Some people will under-estimate their ability and some will not even recognise that a hazard exists. It is important to be aware of all these scenarios.

Inform all participants of the potential hazards and risks, what risk mitigation measures are in place and what precautions participants must take. Try and integrate the safety information into other information you supply.

When we have an event everyone is looking out for everyone else.



08. EVENT PLANNING

HOW?

PERMISSIONS, LEGAL COMPLIANCE, RESOURCES ALLOCATIONS

Find service providers with the right accreditation.



STAKEHOLDERS AND PARTNERS

As an event organiser, you need to clearly understand what your stakeholders' capabilities and expertise are, and the legal framework that governs them. For example, if you approach NSRI or SA Lifesaving to assist you with personnel and/or a boat, you need to understand what their primary mandate is and what they can and can't take responsibility for during an event. NSRI's could be standing by for your event, but they may be called for an emergency leaving you without boat or personnel on the water.

Understanding the protocols of the various partner organisations is important. For example, if you are working with SA Lifesaving, do you know what qualifications and training the lifesavers have and what their needs are to deliver a service at your event?

Basic guidelines, used internationally, require lifeguards to:

At a pool: Identify a victim within 10 seconds and to reach the victim within 20 seconds (10/20). A minimum of 1 lifeguard to 75 patrons is considered the highest manageable risk in a pool facility.

At a beach or Open water Venue: Identify a victim within 30 seconds and reach the victim within 120 seconds (30/120). A minimum of 1 lifeguard to 50 patrons is considered the highest manageable risk at a pre-designated beach area.

Specialised events: Events that are held over a long distance require lifeguards stationed on the water on water craft and must be able to identify and reach a victim within the 30/120 protocol, which may require them to be deployed no further than 50m apart.

Should a lifeguard not be able to identify or reach a victim from their allocated position within this time frame additional personnel or a change to positioning may be required.

Source: Lifesaving SA Patrol Guidelines 2015

Very importantly, do you understand their legal liability? For example, all medical response units must be registered with the Department of Health and all medical people used at an event must fall under a registered medical entity. The medical company responsible must know exactly what medical competence is deployed by other resources or partners at the event. For example, the medic company must know the qualifications of personnel on board a boat, the medical equipment on board and when they last did an active resuscitation.

A less critical issue, but one that is important to know is that in the Western Cape, medical vehicles must be registered in the province they operate in.

WHY?

RISK ASSESSMENT, MANAGEMENT PLAN

These are the tools to show you have identified event risks and have planned to manage them. If you need permissions or licences, you will need to show you have considered all risks and planned accordingly.

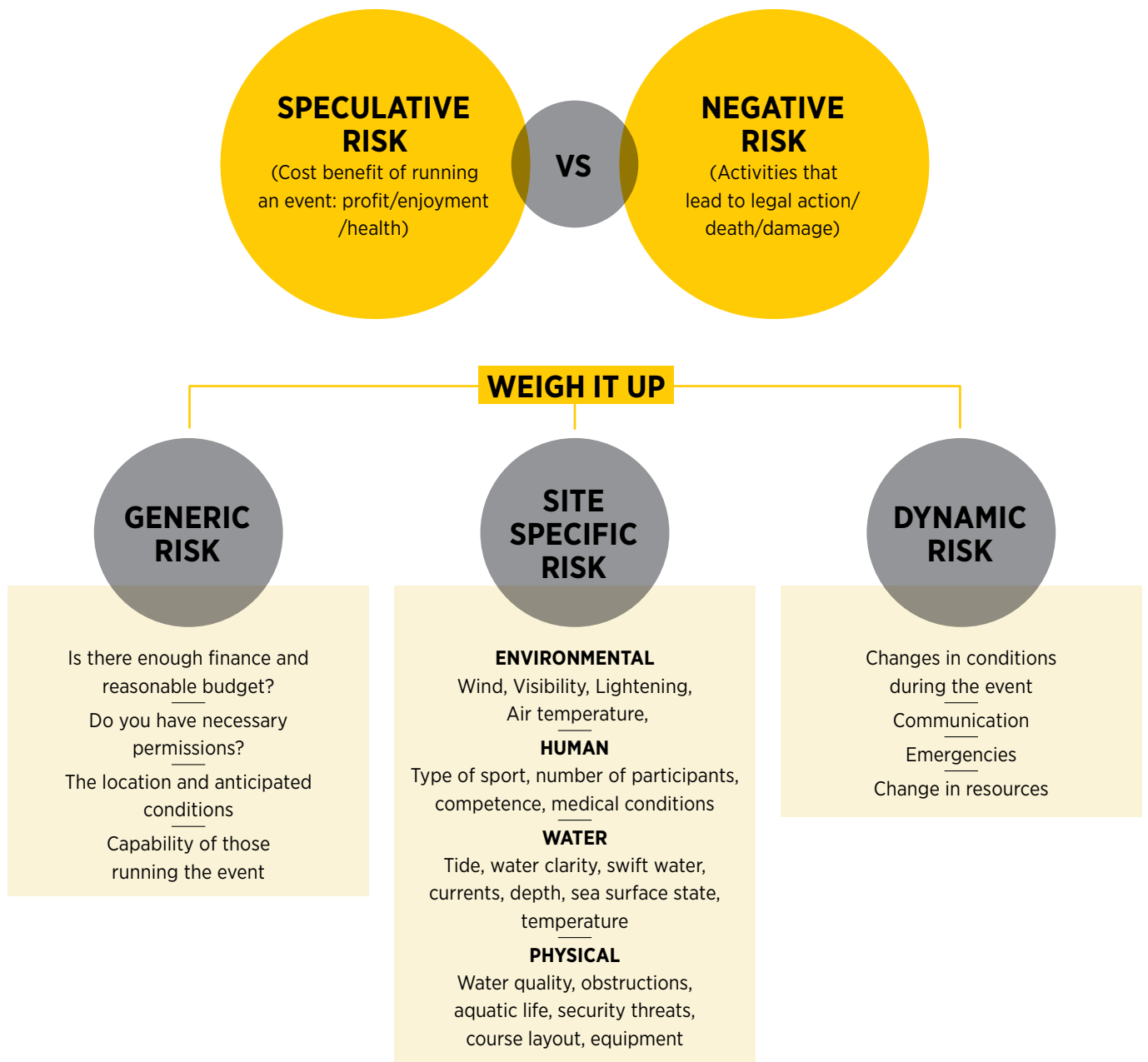
Every event, depending on where it is situated has different hazards and you have to research it properly.



09. IDENTIFYING HAZARDS AND ASSESSING RISK

Every sporting event involves a level of physical risk. When that event takes place in water, the risk is elevated for everyone. Participants accept that risk is involved, and event organisers are responsible for identifying hazards and risks and taking steps to support the safety of everyone at the event, including staff, volunteers and the general public.

Risk management is a clear step by step process where risks are identified, an acceptable level of risk is set, and steps are taken to keep the risk at that level. Legal compliance is an important consideration as failure to comply can lead to litigation. However, it should not be your only focus as an event organiser. You need to focus on managing risk and not avoiding it.



“One size does not fit all”

Risk assessors and event managers must make balanced, robust and defensible decisions

09. IDENTIFYING HAZARDS AND ASSESSING RISK

FRAMEWORK FOR MANAGING RISK

Responsibility

Key responsibilities are assigned to specific people in effective risk management. It is an ongoing process and runs right from the initial planning stage to the post event review.

Documentation

It is important to keep records of your risk management plan as good records provide an audit trail if needed by stakeholders or regulators. It is also a valuable historical document when you need approval for permits etc. It is important that your plan is shared with everyone and it doesn't sit in a drawer gathering dust. It has valuable information and can be used for training and for preparing contractors or volunteers, so they are aware of key safety issues.

Review

The risk assessment should be informed by the post event review and should any of the following take place, the plan should be reviewed:

- A serious incident
- A serious complaint
- An accident
- A significant change of event, system or methods of control
- A change in people taking part or those managing the event
- Updated information from landowners, weather stations etc
- Relevant local news or information

(Source: UK Event Water Safety Manual p33)

Identify the risks

In water sport events, risks and hazards are not what are commonly encountered in land-based events. Many of the risks are inter-related and they can change on a daily or hourly basis. With the environmental challenges of water-based events it is complex and there must be a competent Safety Officer or VOC Committee who is familiar with the challenges and risks associated with a particular sport.

When identifying risks, you need to identify the activity, the hazard associated with it, the possible harm that could arise as a result.

Categorise the risk

For each risk or hazard, allocate a risk score. You can tailor the scale to suit your own event. The most common way of conducting risk assessment is to identify two things:

| CONSEQUENCE: The severity of the harm that might result | | LIKELIHOOD: The chance of that harm occurring |
|---|----------|---|
| Catastrophic: Death, brain/spinal injury, organ damage, permanent disability | 5 | Almost certain |
| Major: Complex fracture, serious injuries, hospital care, hypothermia | 4 | Likely |
| Moderate: Dislocation, simple fracture of ribs/limbs, dehydration, participant does not continue event | 3 | Possible |
| Minor: Contusions, sprains, cuts, minor first aid, participant continues event | 2 | Unlikely |
| Negligible: Bruises, grazes, participant continues event, no medical assistance | 1 | Rare |

09. IDENTIFYING HAZARDS AND ASSESSING RISK

For each hazard you can use the risk matrix below to work out the overall level of risk.

| | | Likelihood | | | | |
|--------------|-------------------|---------------|---------------|---------------|---------------|---------------------|
| | | 1 Rare | 2 Unlikely | 3 Possible | 4 Likely | 5 Almost Certain |
| Consequences | 5 Catastrophic | 5 Moderate | 10 High | 15 Extreme | 20 Extreme | 25 Extreme |
| | 4 Major | 4 Moderate | 8 High | 12 High | 16 Extreme | 20 Extreme |
| | 3 Moderate | 3 Low | 6 Moderate | 9 High | 12 High | 15 Extreme |
| | 2 Minor | 2 Low | 2 Moderate | 6 Moderate | 8 High | 10 High |
| | 1 Negligible | 1 Low | 2 Low | 3 Low | 4 Moderate | 5 Moderate |

Bear in mind, that the cumulative effect of several hazards occurring at the same time and not in isolation will create a very different scenario. For example, for swimmers, a pocket of very cold water in part of the course, combined with fatigue from increased wave height and adverse currents will result in a cumulative deviation from optimum conditions. The risk assessment must consider the controls needed for cumulative hazards/risks.



09. IDENTIFYING HAZARDS AND ASSESSING RISK

Table 4: Example of possible hazards at a water sport event

| ENVIRONMENTAL | HUMAN | WATER | PHYSICAL |
|----------------------------------|----------------------------|-----------------------------|--|
| Wind strength | Competence of participants | Clarity | Water quality |
| Wind direction | Medical conditions | Swift water | Obstructions (seaweed, hyacinth, reeds, underwater hazards, rocks, powerlines, cables) |
| Visibility (fog, mist, darkness) | Number of participants | Currents, rips, tides, surf | Sea life (sharks, blue bottles) |
| Air temperature | Sport specific hazards | Swell, waves | Security |
| Lightning | | Depth | Course layout and distance |
| Heavy rainfall | | Temperature | Equipment failure |
| | | Sea surface state | Sea/river bed conditions |
| | | Distance from shore | Entry and exit points |
| | | | Other water users and boats |

At each stage of an event, the hazards will be different. For example, a large number of people at the start of a swimming race will result in jostling and minor injuries could occur from slipping/tripping. During the initial swim participants can inadvertently hit each other and those less experienced can panic and inhale water. Once the swimming race is underway, individual participants may start to become fatigued or feel hypothermic if the water is cold. There could be blue bottles or jellyfish stings if the swim is in the ocean and people can panic. On inland dam swims a participant could kick an underwater object and hurt themselves.

The next step is to evaluate each risk individually and set an order of priority to deal with them. Low risk should be acceptable with routine procedures. Medium or high-level risks must be dealt with to reduce the likelihood or impact. Extreme risk is unacceptable and must be eliminated or reduced regardless of cost or implications.



10. UNDERSTANDING RISK EFFECTS AND CONTROLS

When considering risk, you have three options: One is to avoid or isolate the risk completely eg cordon off an area in a dam where there is an underwater hazard that could harm swimmers.

Secondly minimise the risk eg set minimum requirements for participants in an open ocean surf ski race (as per Canoeing SA “*The Paddlers Handbook*” p111).

- a) The written acknowledgement by his/her club safety officer that he/she is competent to paddle in open ocean races.
- b) The wearing of a PFD (that conforms to EN ISO 12402-5 {Level 50})
- c) A leash if the wind (or predicted wind) is over 10 knots. The leash needs to be in sound working order and must be attached to the body and to a safe point on the craft, preferably the foot strap.
- d) The CSA number of the paddler of the craft to be affixed to the craft on either side of the front deck.
- e) A cell phone with enough airtime, a fully charged battery, the race emergency number loaded, in a waterproof pouch, housed in a pocket of the PFD.
- f) A tracking device.
- g) Whistle. Of the variety that can operate while wet.
- h) Brightly coloured clothing, including a hat (if worn), preferably lumo.
- i) A minimum of 30% of the deck of the ski must be covered in a bright coloured paint or a bright coloured preferably luminous decal/s. Or, 1000mm of the nose and tail of the ski must be painted a bright colour (preferably red or orange).
- j) A bright coloured decal on the back of each blade of the paddle.
- k) Three pencil flares.

Thirdly, transfer or share the risk with someone else, usually by paying for a specialist service. eg appointing a registered medical service for your event. When you do transfer risk, you must make sure the company/individual is qualified and capable, and if necessary, consider a written contract to ensure they understand their responsibilities and your organisation is protected.

SAFETY RESOURCES

The Safety Officer/VOC committee has overall control and responsibility for the team that will be used to ensure safety at the event. Everyone comprising the safety team must be competent and have enough knowledge and experience to undertake their tasks.

- Are they qualified and experienced in their role?
- Are they fit, and do they have the experience to handle the anticipated conditions?
- Are they familiar with the location and the environment?
- Do they have the required equipment?
- Can they use communication equipment such as radios?
- Can they recognise a potential problem and act accordingly?
- Are they confident that they can handle the conditions?
- Can they self-rescue themselves if there is an emergency?

Each water sport event may need different safety resources. But there are common competencies that must be covered when considering how to put together your safety team:

10. UNDERSTANDING RISK EFFECTS AND CONTROLS

Table 6: Competencies for the safety response team

| | | |
|---|-----|---|
| Can the team see everyone in or on the water? | Yes | Lifeguards are trained to “scan” for people in difficulty. On a boat, kayak or stand up paddle board there is better visibility to monitor participants. A board provides a platform for someone to hold onto. Is it better to station people in a linear or a V shape pattern at the start of a race? Do you have enough resources so that everyone is visible in a “staggered” start to a race? Can resources reach a casualty in under a minute? |
| | No | Participants must have another form of communication such as a cell phone, Safetrx, flares and signalling devices. Deployment of “sweep” resources at the back of the field. A powered boat on stand-by to reach people out of sight as risk increases significantly. |
| Can the team identify people in difficulty or needing assistance? | | The safety team must be trained to identify people in difficulty and respond accordingly. For challenging conditions, higher competencies must be used. Difficulties and assistance are often sport specific so ensure the team is trained. Eg kiteboarding rescue procedures. |
| How quickly can they get to a casualty? | | This is affected by the size of the event and will determine how many resources you need. |
| Can the team communicate effectively? | | The use of hand signals or signs, such as raising a paddle vertically in visible distance. The use of whistles and loudhailers. The use of radios and cell phones when not in visible distance. All boats on the water must have communication with the Safety Officer/VOC on land. Call signs allocated and used for different resources. Use of closed loop communication. A log of all communication and decision making. Use of Whats App by the team. |
| Knowing how to respond to a panicking casualty? | | Without endangering your own life. |
| Recovering someone from below the surface of the water? | | Able to dive below the surface of the water and retrieve a casualty. |
| Safely support a conscious casualty? | | Safely able to support them in the water and remove them from the water into a boat. |
| Safely support an unconscious casualty and get them to safety? | | Have enough and appropriate boats to get an unconscious casualty to the shore as quickly as possible. |
| Able to do first aid and resuscitation? | | Have a qualified medic on the boat to start administering care. Qualifications and last known resuscitation must be documented. |

THE TYPES OF COVER

This is not an exhaustive list, but it documents some of the on-water safety cover you can consider for your event.

- Personal water craft/jet skis
- Boat with inboard or outboard motor
- Medic on board
- Stand up paddle boards
- Kayaks/Canoes (sit on top and sit inside)
- Lifeguards
- Rescue divers
- Public rescue torpedo buoys

10. UNDERSTANDING RISK EFFECTS AND CONTROLS

WRITE A RISK MANAGEMENT PLAN

It is very important to keep an accurate and up to date record of your risk planning and implementation. Don't see your plan as a check list document that allows you to gain the relevant permits you need for your event. It needs to be a living document not something that gathers dust in a drawer until the next time you need to apply for a permit.

When developing the plan consult with others, consider the management aspect, how effective the plan is and what various options need to be considered.

You will also need an incident register and a post event report to assist you in assessing risk at the next event.

“Your safety plan must be area specific. For example, at Victoria Bay there are rocky points. At Lamberts Bay there is crime on the beach. In Durban the shark nets are lifted when there is big surf.”

IMPLEMENT AND COMMUNICATE YOUR PLAN

A plan is a tool for implementation and without effective implementation, the plan will not be worth the paper it is written on. The plan must be communicated to EVERYONE responsible for actions at the event or whose involvement is required for it to be successful.

There are lots of ways of communicating, so think creatively how best to get your information across to the relevant people at the right time. When people are informed, they generally assume personal responsibility. For example, if you are using volunteer skippers on the water, make sure they know the risks and what to do to manage the risk. Don't just assume that because they have a skipper's licence, they know the signs of someone in distress in the water and how to manoeuvre alongside the casualty and safely get them out of the water. The more your volunteers and contractors know the more effective their response will be.

Use your risk management plan as a training tool.

Likewise, participants need to know what risks there are and what their responsibilities are for minimising them. For example, using the correct thickness of wetsuit for the conditions, not being impaired by drugs/alcohol, declaring any potential medical conditions.

In verbal briefings it is recommended to read out written material for consistency. It is also useful to give people information in different ways. For example, in print, online, orally and with signage. The formality of communication will depend on your event and the people involved, but it is crucial that all information is correct and clear.

MONITORING AND REVIEWING

Remember that the environment is always changing and could impact your risk plan. On the day, a change in weather could increase or decrease the risk profile and you will need to respond accordingly. Changes in staff or volunteers could leave you with key risks unmanaged and you'll need to reassign responsibility. You will also need to keep an eye on the legal environment because changes there could raise compliance issues.

It is important to review your plan in light of incidents. The more events you manage, your risk plan will become more accurate as you are better able to predict incidents and to mitigate them in your planning.

After the event, while you may be glad the stress of organising is over, don't lose sight of the importance of a full debrief including your safety plan. This is when you can get quality information from participants, spectators, volunteers and others on what worked and what didn't work.

Don't wait for a crisis and an emergency response, rather use the inputs of those passionate about their water sport to inform improved safety planning. They are just as invested in ensuring their sporting event is safely managed.

In fact, the onus on the event manager to highlight the importance and relevance of safety to participants every step of the way is crucial. Some people, for example, will complain about the high cost of entry to an event without considering the cost of ensuring that the event is conducted safely, and risk is mitigated. Tell them from the beginning! Explain and Educate!

“SAFETY IS A CONSEQUENCE OF EDUCATION”
Divers Alert Network

11. EMERGENCY PLANNING

An emergency plan is different to your safety plan, but it must be directly informed by your risk assessment process.

It is important that roles and responsibilities are clearly outlined during an emergency. As an event organiser you should identify the roles, responsibilities and reporting relationships.

Checklists and flowcharts are useful to consolidate information and outline decision making and can be added as an appendix. Contact information must be provided for all the key staff and emergency responders.

- Step by step procedures of what to do in an emergency
- A clear chain of command in place and understood
- Staff trained to stay calm, react quickly and work together efficiently
- Communication is clear and logged where possible
- The plan includes event staff and outside agencies such as NSRI and medical services
- Ensure continuity of event management during an emergency
- After care counselling and support
- Prepared to brief media

INCIDENT REPORTING AND INVESTIGATION

Should an emergency happen during your event, your emergency plan will assist you in dealing with the situation. However, it is useful after the event to fully investigate what happened and to use it as a learning opportunity to improve your event and change people's thinking. Don't "brush it under the carpet" but rather use it as a powerful education tool for all those involved to better understand risk profiling and mitigation.

You will need to gather the evidence, analyse it and ask the question about what happened, how it happened and why it happened. From there make your conclusions and recommendations and ensure accurate records and evidence are kept on file. A report must be submitted to SAMSA.

Should the emergency be of a very serious nature there may be an external investigation by SAMSA to determine the causes, lessons learned to prevent it happening again, and to ascertain if there was any negligence. Should there be a fatality the SAPS and the coroner will also be involved. Be prepared with your own internal investigation documentation, especially if the matter leads to litigation.

DE-BRIEFING

A de-briefing should involve the whole team. Incidents, emergencies and first aid responses need to be documented and reviewed to avoid future occurrences. Equipment needs to be reconciled and replaced if necessary. Batteries and electronic items used may need to be re-charged. The course

layout should be looked at in the context of the weather and water conditions encountered on the day.

The communication and clarity of communication must be reviewed, and future changes recommended. Likewise, the deployment of resources and how effectively they did their job on the day. If the operation has been conducted using a Whats App group, it is very useful to review the communication and decision-making thread to see if improvements could be made.

A full report should be compiled with recommendations to review the safety plan.



SOME OF THE INCIDENTS RAISED BY ORGANISATIONS AND INDIVIDUALS WHO CONTRIBUTED

- Gear failure
- Falling out of the ski/canoe/kayak
- Boat capsize in surf
- Jellyfish, Sharks, Snake bites
- Slipping on rocks
- Cuts and bruises
- Getting tangled in seaweed and reeds
- Getting trapped in trees
- Foot gets stuck below the water
- Sea sickness
- Asthma
- Fatigue
- Water inhalation
- Gastrointestinal complaints "gypo guts"
- Burst ear drums
- Cramping
- Broken ankles
- Diabetic fits
- Hypothermia
- Heart attacks
- Lightning strike
- Drowning

12. APPENDICES

12.1 A USEFUL CHECKLIST

| | |
|------------------------------|---|
| Type of event | <input type="checkbox"/> Community, club race, official race, fundraiser |
| Size of event | <input type="checkbox"/> Participants and spectators |
| Location | <input type="checkbox"/> Site plan (assembly areas, start/finish, emergency access, location of medics) <input type="checkbox"/> VOC (venue operational centre) <input type="checkbox"/> Access to venue <input type="checkbox"/> Parking <input type="checkbox"/> Keys for facilities <input type="checkbox"/> First aid <input type="checkbox"/> Storage areas <input type="checkbox"/> Toilets |
| When | <input type="checkbox"/> Calendar conflicts? <input type="checkbox"/> Time of day and possibility of finishing after dark? |
| Budget | <input type="checkbox"/> Sufficient financial resources <input type="checkbox"/> Sponsorship |
| Permits/Legal | <input type="checkbox"/> All SAMSA documentation complete <input type="checkbox"/> All municipal permits approved <input type="checkbox"/> All legal compliance met |
| Insurance | <input type="checkbox"/> Public liability <input type="checkbox"/> Federation |
| Medical provider | <input type="checkbox"/> Registered with the Department of Health <input type="checkbox"/> Medical operations plan on file <input type="checkbox"/> Briefed on medical qualifications of all additional personnel, including date of last resuscitation |
| Role players | <input type="checkbox"/> Availability of safety officer, helpers/volunteers, clean-up crew, data capturers |
| Course layout | <input type="checkbox"/> Three options to accommodate environmental changes <input type="checkbox"/> Clear start and finish points <input type="checkbox"/> Clearly marked <input type="checkbox"/> Resources deployed at key points <input type="checkbox"/> Factors affecting course layout (eg wind/wave/temperature) <input type="checkbox"/> Course layout continually evaluated in terms of safety risks |
| Water based resources | <input type="checkbox"/> Boats, jet skis/PWC (with/without sleds), stand up paddle boards, kayaks, life guards <input type="checkbox"/> Preference to brightly coloured craft/reflective tape <input type="checkbox"/> Kill switches on motorised craft <input type="checkbox"/> What safety equipment is available on the boat (oxygen, medical personnel, trauma board, blankets, first aid kit, flares, tow ropes, fuel) <input type="checkbox"/> All resources clearly identifiable and recorded <input type="checkbox"/> All boats have current Certificates of Fitness (COF) <input type="checkbox"/> All skippers have current Certificates of Competence (COC) <input type="checkbox"/> How many, at what stage of the event? <input type="checkbox"/> Call signs? <input type="checkbox"/> On the day briefing of all resources |

12. APPENDICES

| | |
|---------------------------------|---|
| Communication plan | <input type="checkbox"/> Log book/Whats app log <input type="checkbox"/> VHF/Cell phone <input type="checkbox"/> Saftrx (individual and flotilla) <input type="checkbox"/> Contact phone numbers <input type="checkbox"/> Decision making flow chart <input type="checkbox"/> Code word for extreme threats that can cause panic eg shark <input type="checkbox"/> Triage descriptors agreed upon <input type="checkbox"/> On the day briefing of all resources |
| Land based resources | <input type="checkbox"/> Physical infrastructure permits <input type="checkbox"/> Emergency meeting point <input type="checkbox"/> Medical equipment <input type="checkbox"/> Safe place to store gear/equipment <input type="checkbox"/> Shade <input type="checkbox"/> Water stations (Cape water restrictions) <input type="checkbox"/> Spotters along the river course <input type="checkbox"/> Divers at river obstacles <input type="checkbox"/> On the day briefing of all resources |
| Volunteers and staff | <input type="checkbox"/> Appoint a Safety Officer who is very experienced in the sport <input type="checkbox"/> Document everyone's qualifications and experience <input type="checkbox"/> Have written agreements with any sub-contractors <input type="checkbox"/> Everyone clearly identifiable/in uniform <input type="checkbox"/> On the day briefing of all resources |
| Weather/Water | <input type="checkbox"/> Weather forecast <input type="checkbox"/> Air temperature measurement <input type="checkbox"/> Water temperature measurement <input type="checkbox"/> Lightning measurement <input type="checkbox"/> Weather forecasts <input type="checkbox"/> Tides <input type="checkbox"/> River levels <input type="checkbox"/> Dam floodgate openings |
| Competitors/Participants | <input type="checkbox"/> Personal details/next of kin/contact numbers (on file and available during the event) <input type="checkbox"/> Documented competence/experience <input type="checkbox"/> Medical checks (if required) <input type="checkbox"/> Indemnity signed <input type="checkbox"/> Start groups assigned (where relevant) <input type="checkbox"/> Numbering and identification of competitors clear and cannot be washed off <input type="checkbox"/> Brightly coloured caps for swimmers <input type="checkbox"/> Equipment safety check <input type="checkbox"/> Personal safety checklist complied with (lifejacket, wetsuit, whistle, cell phone, Safetrx, leash, brightly coloured caps, helmets, flares etc) <input type="checkbox"/> Last minute entrants and change to safety plans <input type="checkbox"/> No alcohol or drug impaired participants <input type="checkbox"/> Briefing including potential obstacles and dangers, course outline and markers, safety resources and how to call for help <input type="checkbox"/> Pre and post count of all competitors |
| Emergency Plan | <input type="checkbox"/> Single injury <input type="checkbox"/> Multiple injury <input type="checkbox"/> Communication <input type="checkbox"/> External resources |

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| | |
|-----------------|---|
| De-brief | <ul style="list-style-type: none"><input type="checkbox"/> Number of rescues and details<input type="checkbox"/> SAMSA controlled event report (if required by Authorised Agencies)<input type="checkbox"/> Number of participant withdrawals and reasons<input type="checkbox"/> First aid cases and severity<input type="checkbox"/> Course layout review<input type="checkbox"/> Rescue equipment and first aid equipment used and replaced<input type="checkbox"/> Rescue boat activities and patrol reviewed<input type="checkbox"/> Lifeguard activities and patrol reviewed<input type="checkbox"/> Fuel used<input type="checkbox"/> Communication and clarity of communication reviewed<input type="checkbox"/> Weather conditions documented<input type="checkbox"/> Sea state conditions documented<input type="checkbox"/> Cleaning and storage of equipment<input type="checkbox"/> Radios and electronic equipment recharged |
|-----------------|---|



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12.2 EXAMPLE OF A SIMPLE SAFETY PLAN (SOURCE: DAVID MOCKE)

1. Compulsory: All competitors have PFD, cell phone/flare and leash, and Safetrx
2. Paddler Emergency Signal (other than cell phone or flare) = Signalling with paddle straight up
3. 4 Proposed Routes:
 - a) Triangle shape course from the beach to the harbour then out to Sentinel Rock and back, 2 laps long course, 1 lap short course – big swell, SW wind
 - b) Triangle shape course from beach to White House, then Chapmans Peak and back to beach, 2 laps long course, 1 lap short course – Big swell, strong SE wind
 - c) Vulcan Rock and Back 1 lap long course, Short course Sentinel Rock and back, small swell, SW wind
 - d) Noordhoek Rocks and back, 1 lap Long Course, Chapmans Peak and back 1 lap short course.
4. Radio Comms on *Channel 77 (Seventy Seven)*
5. 1 Private Rib:
 - a) Driver – NAME – CELL NUMBER
 - b) Stationed at Top turn buoy
 - c) Call Sign – Mike
6. NSRI Boat:
 - a) STATION COMMANDER – CELL NUMBER
 - b) Rescue 8 Alpha
 - c) Sweeping Leg 2
 - d) Call Sign – Rescue 8 Alpha
7. Land Co-ordinator at Race Finish, Beach
 - a) NAME – CELL NUMBER
 - b) NAME – CELL NUMBER
 - c) Call Sign Surfski Control
8. Commentator – Communication to paddlers pre and post-race
 - a) To be confirmed on the day
 - b) Call Sign Surfski Commentator
9. NSRI has full discretion to pull individual paddlers from the water. NSRI saves paddlers as 1st priority, craft as 2nd priority only when possible and not jeopardising the safety of the boat and crew.
10. CMR Medical (Basic Life Support) on Standby at XXX Restaurant
11. All emergencies to be transferred back to Hout Bay beach or NSRI slipway
12. Emergencies to be expected (most likely):
 - a) Unable to remount craft, water bound, hypothermia
 - b) Lost craft, limited swimming ability, hypothermia
 - c) Collision, craft not operational, drifting, mild hypothermia
 - d) Shoulder dislocation caused by brace stroke, unsuccessful remount or collision; hypothermia
13. Emergency to be Expected (Very Unlikely): shark biting Surfski, ski non-operational or sinking, shock, hypothermia, worst case scenario: severe blood loss



12.3 SAMPLE HEADINGS FROM A MEDICAL OPERATIONAL PLAN

1. Overview
2. Abbreviation's
3. Team Deployment
4. Route Maps
5. SANS 10366 Risk Assessment
6. Off Site Emergency Assistance
7. Emergency Response: Multiple Patient Incident
8. Management of a deceased patient
9. Transportation routes for emergency vehicles
10. Contact Details
11. Hospital Notification and Location
12. Emergency Helicopter Protocols
13. Event Medical Co-ordination
14. Medical Sharps and Biohazards waste management
15. Conclusion
16. Annexure A: (Confirmation of liability insurance)

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12.4 SANS 10366:2009 EDITION 2 SECTION 25 “EVENTS, ON, AT OR NEAR WATER”

25.1 Risk assessment

A risk assessment shall be conducted for all events on, at or near water.

The hazards will vary, dependent on the event and water type, and may include:

- a) backwash,
- b) changes in weather and water conditions,
- c) currents, rips and drifts,
- d) eddies,
- e) hypothermia,
- f) insect bites and stings,
- g) near-drowning/drowning,
- h) persons in distress,
- i) submerged objects,
- j) tides,
- k) waves, and
- l) whirlpools.

25.2 Safety of participants

- 25.2.1 Any member of the public who participates in a water related activity shall be deemed to be a participant.
- 25.2.2 Participants shall wear adequate body and head protection and flotation equipment as identified by the risk assessment.
- 25.2.3 The event organizer shall deploy sufficient craft, qualified staff and equipment as identified by the risk assessment.
- 25.2.4 In events with more than 50 participants or if indicated by the risk assessment, the event organizer shall appoint a rescue coordinator.

25.3 Safety of spectators

NOTE See SANS 20712-1 for water safety signs.

- 25.3.1 The event organizer shall appoint a rescue coordinator at all water-related events.
- 25.3.2 Adequate fencing shall be provided around the water to prevent spectators from accidentally falling into the water. Additional safety measures shall be put in place to prevent hazard for small children. Adequate security staff shall be deployed to manage the crowd.
- 25.3.3 Sufficient craft, qualified staff and equipment shall be deployed to assist spectators should they fall into the water.
- 25.3.4 Additional safety precautions shall be in place at events where alcohol might be consumed.

25.4 Electrical safety

Special precautions shall be implemented for all electrical equipment used near water.

25.5 Foreign objects

No participant or spectator may throw any can, bottle or other object onto or into the water.

25.6 Rescue teams

Rescue teams used at water-related events shall consist of not less than two members.

25.7 Water rescue craft

The craft selected shall be seaworthy and suitable for the type of event and water and environmental conditions.

Special precautions are required when operating craft with propellers.

When operating water rescue craft, skippers shall

- a) be qualified to operate the craft, and
- b) ensure that adequate fuel is available.

25.8 Water rescue staff

- 25.8.1 Water rescue staff shall be
 - a) equipped with personal protective equipment that are required to perform the task safely,
 - b) fit, and
 - c) competent swimmers.
- 25.8.2 Individual specialists may be used in water rescue teams, provided that the collective team can provide the following skills:
 - a) the ability to assess weather and water conditions and to take appropriate action;
 - b) the ability to safely operate the craft in use;
 - c) knowledge of water safety;
 - d) knowledge of water rescue equipment;
 - e) knowledge of water rescue operations (including search operations)
 - f) knowledge of signalling and radio communication; and
 - g) the ability to render emergency medical assistance.

25.9 Water rescue equipment

The risk assessment will determine the type and quantity of equipment required.

The following equipment should be considered:

- a) air or oxygen (or both);
- b) flares, flags, lamps and lanterns;

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- c) flotation equipment;
- d) maps and charts;
- e) medical equipment;
- f) oars,
- g) ropes, harnesses and slings;
- h) stretchers and splints; and
- i) waterproof radios.

25.10 Rescue coordinator

The rescue coordinator shall have a minimum of 100 h rescue operational experience and shall be competent in

- a) leadership skills,
- b) the use of rescue craft,
- c) the use of rescue equipment,
- d) rescue techniques, and
- e) water safety.

12.5 SCHEDULE OF VOC TECHNICAL SPECIFICATIONS (SCHEDULE 8 OF THE SAFETY AT SPORTS AND RECREATIONAL EVENTS ACT NO. 2 OF 2010)

A. VOC Design

1. A temporary or permanent purpose specific safety and security command and control centre, which, as far as reasonably possible, must have an elevated full un-restricted sight line of the spectator viewing area and the field of play, stage, podium and area of recreation, activity or entertainment, sufficient in size to seat, and accommodate the safety and security role-players referred to in section 10(3)(a) of the Act.
2. The permanent or temporary VOC structure must be enclosed, air-conditioned and sufficiently sound- proofed to allow proper and audible communication between the safety and security role-players deployed in the VOC.
3. Entry to the VOC must be restricted by means of an internally controlled door locking mechanism or electronic access control system.
4. The seating configuration inside the VOC must, as far as is reasonably possible, be configured in a command seating format which allows for tiered seating in order that all safety and security role-players deployed in the VOC have, as far as is reasonably possible, a clear and un-restricted view of the field of play, stage, podium and area of recreation, activity or entertainment.
5. The glazing layout and material must be such that it minimizes glare from the sun and internal light

reflections at night inside the VOC;

6. The installation inside or in close proximity of the VOC of a kitchenette and ablutions for use by the VOC personnel during an event;
7. The VOC must be located so as to ensure that:
 - (a) there is good cell-phone and two-way radio reception across all licensed bandwidths inside the VOC;
 - (b) it can be readily evacuated in the case of an emergency;
 - (c) it must be reasonably accessible for all safety and security personnel throughout an event and must have at least one dedicated access route to it which does not coincide with the normal general spectator flow routes in and around a stadium or venue; and
 - (d) as far as is reasonably possible, it must not face in a westerly direction.

B. VOC Equipment

1. The VOC must at least have the following equipment, systems and documentation in place during an event:
 - (a) a permanent or temporary stadium or venue wide digital CCTV surveillance and recording control system;
 - (b) sufficient two-way radio communication equipment which must allow for the proper stadium, venue or route wide communication between all safety and security disciplines;
 - (c) ready access to an auxiliary electrical power source, sufficient in capacity to allow for the normal running of the VOC during an event, should a power outage occur, for a period of not less than 4 hours;
 - (d) at least one dedicated permanent or temporary direct telephone line with handset and a dedicated facsimile line together with a facsimile machine;
 - (e) a notice-board, which is to be erected on a wall in a visible position in the VOC, of sufficient size to allow for the affixing of documentation as required in terms of the Act and regulations;
 - (f) a projector screen;
 - (g) proper air-conditioning;
 - (h) a UPS or similar clean power distribution system inside the VOC;
 - (i) a sufficient number of desk-top or lap-top computer ports for the purposes of, amongst others, the electronic logging of safety and

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- security incidents at an event and the transmission of electronic data to the VOC from the automated electronic spectator turnstile and ticketing system;
- (j) a data-projector in order to process, print and display the electronic information transmitted to the VOC referred to in paragraph (i);
- (k) sufficient electrical power points and reticulation inside the VOC in order to allow for its effective operation as contemplated in terms of the Act and these regulations;
- (l) sufficient lighting and emergency back-up lighting inside the VOC in order to allow for its effective operation as contemplated in terms of the Act and these regulations;
- (m) the installation of an electronic public address cut-in facility inside the VOC;
- (n) the required seating inside the VOC should be of the swivel-type;
- (o) sufficient desks inside the VOC to allow for the proper execution of the functions of the safety and security role-players deployed inside the VOC and the placing of all of the electronic equipment referred to in this schedule;
- (p) the fire fighting equipment required by law;
- (q) a sufficient number of binoculars to allow for the effective surveillance of spectators or other attendees at an event;
- (r) a properly equipped first-aid kit;
- (s) a copy of the approved event safety and security plan;
- (t) access to a photocopier;
- (u) sufficient computer equipment in order to process and print any electronic information transmitted to the VOC via the computer ports as contemplated in paragraph (i);
- (v) at least one television set linked to a TV transmission signal of the event by the outside broadcast unit; and
- (x) a broad-band internet access point.
2. The technical specifications set out in paragraph A of this schedule must be put in place by a stadium or venue owner or operator.
3. With the exception of sub-paragraphs (b), (q) and (u) of paragraph B of this schedule the stadium or venue owner or operator must ensure that the balance of the requirements contained in paragraph B of this schedule, is put in place.

13. REFERENCES

- Australian Water Safety Council (2008) A Guide to Water Safety Essentials for Local Governments
- Canoeing South Africa: The Paddlers Handbook, January 2017
 - Dusi Canoe Marathon 2018 Medical Operational Plan
 - Lifesaving South Africa Patrol Guidelines, 2015
 - Managing Event Water Safety: Surf Lifesaving Great Britain, 2012
 - NSRI Operations and JOCs: Extract from the Cox'n training course presented by Brad Geysler Oct 2018
 - Risk Management of Events: Sport and Recreation New Zealand
 - Rowing South Africa, Rules of Rowing, July 2017
 - SANS 10366: 2009 Edition 2, Section 25
 - Schedule of VOC Technical Specifications (Schedule 8 of the Safety at Sports and Recreational Events Act No 2 of 2010)
 - Triathlon Ontario: Handbook for New Race Directors, January 2015
 - Water Safety Principles: National Water Safety Forum, Great Britain
 - WET Watersports Enhanced Together: A Toolkit to GET everybody WET, 2017

