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ACKNOWLEDGEMENTS

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Organisations that have assisted or have been consulted in the production of this document:

- Royal Life Saving Society (RLSS)
- British Canoe Union (BCU)
- Royal Society for the Prevention of Accidents (RoSPA)
- British Triathlon Federation (BTF)

Words importing a particular gender (including neuter) include all genders.





INTRODUCTION

Safety is of paramount importance to the Amateur Swimming Association (ASA) and British Swimming (together 'the Organisations') in the conduct of any Open Water Swimming event/competition hereafter referred to as an 'event'. The first step in planning an Open Water Swim is to consider all safety factors. At all times, the priority must be to safeguard the health and safety of athletes/participants, hereafter referred to as 'participants'.

This publication is not designed to prevent the running of, or development of, Open Water Swimming, it has been designed with the intention of, and commitment to, ensuring that the risk of harm to participants in Open Water Swimming is minimised to the fullest extent possible given the risk inherent in the sport of Open Water Swimming.

This publication further provides guidance on the safe management of Open Water events and programmed Open Water Swimming training for the persons or body in effective control of the event (the "operator") for all sites where the public have access to Open Water both in inland waters and coastal waters.

The Organisations, through the Group, has prepared these guidelines following a comprehensive safety review of planning and event organisation. The guidelines are intended for use by the Organisations and the National Associations (ASA, SASA and WASA) when organising events. They are applicable at all levels; the event could be a local event run by a club or Region or a National or International event run by British Swimming or one of the National Associations.

The document is intended to assist event organisers, safety officers, referees and other officials run a safe and successful

event. It is for **guidance only** and although every care has been taken in its development, British Swimming can accept no responsibility for any loss or negligence arising out of its use, although every care has been taken in its development.

The advice given primarily concerns the safety of the public taking part in or viewing controlled programmed events. This document provides guidance, event operating procedures and a generic risk assessment.

The Laws and Regulations governing Open Water Swimming are published by the National Associations, and apply as appropriate unless the event conditions specify FINA Rules. The Regulations are published in the respective National Association handbooks annually and can be accessed from the relevant National Association websites. The ASA's is available at www.swimming.org/asa/clubs-and-members/asa-handbook-2011/.

This publication is a guidance document and should be read in conjunction with the relevant sporting rules.

Due to the unique features of both inland and coastal sites this document does not attempt to provide prescriptive answers to specific questions, which would be addressed within the site risk assessment. However, the document will address general issues such as the upper and lower parameters of water temperatures and competitor management.

This document is a 'living document' and as such is updated periodically in the light of experience and to reflect best practice and improvements in safety procedures.

Users of this publication are welcome to comment on content and usability and to send any new and relevant material that may be incorporated in subsequent issues to the Organisation or if there are any concerns following an event to facilities@swimming.org.

BACKGROUND

Open Water bathing has always been a popular activity primarily as a recreational pursuit linked to tourism and sunny weather. Open Water events, although not a new phenomenon, have increased significantly throughout the 1990's both in frequency, size and location. Open Water Swimming events have been recorded with participants in excess of 10,000; this sort of event obviously has serious health and safety implications particularly in terms of span of control and supervision.

The sport of Open Water Swimming is one of the fastest growing water sports in the country. Since it became an Olympic sport in 2008 its popularity has increased year on year. In part this popularity comes from the growth in mass participation events with some 5000 participants taking part over one weekend. Triathlon is another sport that is an exponent of the sport, it is reported that in the 2009 season there were 803 registered races across England, Scotland and Wales accounting for 120,620 participants. Clearly, to accommodate such a large number of events safely requires detailed risk assessment, parameters for operation and detailed procedures for setting up and implementing them. However, not all open water activity is for a specific event, a vast majority of the swims in Open Water will take place in training sessions, where the numbers are not available due to the unstructured nature and frequency of the occurrence.

In addition to the size of the event Open Water Swimming is always subject to a greater or lesser degree to fluctuations in weather conditions, tides, currents, wind force etc. resulting in the possible cancellation of the event at short notice.





EVENT PLANNING

This section provides information and guidance for those involved in the organisation of an Open Water Swimming event.

LAWS AND REGULATIONS

The Regulations for Open Water Swimming, as published by the three National Associations, shall apply as appropriate unless the event conditions specify FINA Rules. The Laws and Regulations are published in the respective handbooks and can be accessed from their websites.

PLANNING AN OPEN WATER SWIM EVENT

The organisation of an Open Water Swim event is complex and time consuming and requires detailed planning in order for it to be a success. The following is guidance on what needs to be done and who should do it.

ORGANISING TEAM

The Organising Team should typically consist of:

- **Event Promoter:** ultimate responsibility for the success of the event, the promoter is likely to be the leader of the Organising Team.
- **Event Administrator:** responsible for day-to-day administration, principally this covers the secretarial responsibilities and is the point of contact to outside agencies.
- **Technical Director:** recruits the Technical Officials and Judges.
- **Safety Officer:** responsible for all aspects of safety before, during and after the event.

- **Course Officer:** responsible for each course to be used for the event. The Event Promoter will normally select the location, but the Course Officer must agree that it is suitable and safe. The Course Officer will plan each course, ensuring they are the correct length, that start and finish areas are accessible and correctly marked and that all turning points are clearly visible to the swimmers and manned by appropriately qualified race judges.

ORGANISING TEAM RESPONSIBILITIES

The Organising Team are responsible for all aspects of the event including:

- site selection
- liaison with local authorities and services including the local hospital A&E unit
- authorisations to hold the event at appropriate level – local, county, district or national
- administration
 - promoter's conditions
 - budget control
 - entry forms
 - entry closing date
 - entry acceptance
 - preparation of start lists
 - results service
- event publicity, media briefing to press, TV and radio
- appointing technical officials
- managing the event on the day
- post event reports
- equipment (wrist bands, PA system etc)

PLANNING TEAM MEETINGS

Much of the work involved can be conducted individually once clear delegation of responsibilities has been given. However, team members must ensure that communication is maintained and a record kept of duties and actions that have been fulfilled. Whilst much of this work can be recorded using written communications, including e-mail, it is recommended that Organising Teams meet at least twice before an event. The first meeting will establish lines of communication and delegate responsibility. If the site is a new site it is advisable to hold the first meeting at the site. It will also result in a detailed plan covering the period up to and including the event day as well as any post event activities. A second meeting is advisable approximately one month before the event, or earlier, to ensure all local permissions and contingencies have been covered. It is recommended that if the Organising Team has not already visited the site this second meeting be a site meeting if at all possible. Local conditions can be viewed, intimate knowledge of the local authorities and services will be available and liaison established with boat owners, canoe clubs, accommodation providers, police, coastguard and medical services. See [Appendix G](#) for a fuller checklist. This checklist should be tailored for each event and the completed checklist will form part of the safety case.

The Event Promoter is responsible for calling meetings and issuing agendas and minutes. Agendas should be carefully planned in order to cover all aspects detailed in this guidance.

Following the event a final meeting should be called in order to confirm results, discuss procedures, event outcome and if the event is a national event a report should be made to the National Association Open Water Swimming Committee as soon as possible after the event. If all has gone well and the team have completed all their delegated duties this meeting will be short and it should be possible to hold the preliminary planning meeting for the next year event at the same time.

ADVANCE PREPARATION

› Permissions

Local enquiries need to be made to establish who has an interest in the chosen site and what formalities need to be observed in obtaining permission to run the event. Typically the local authority is the first point of contact, followed by the owner of the site and local emergency services (including hospitals and coastguard).

Preliminary notification of the event should include:

- proposed date and timing
- proposed venue
- safety considerations
- proposed start and finish areas
- proposed course and alternatives
- an estimate of the number of competitors

It is likely that the local authority already publishes an event planning guide. If this is the case that document should be followed but augmented with particular information that you decide should be included for the safety of your event.

COURSE PLANNING

Course Planning is one of the most important aspects and must be started early. A proposed course should be part of the initial notification provided when seeking authorisation for an event to be held. This is particularly important for sea swims and where coordination with other water users is required. Detailed planning must be conducted in conjunction with the Safety Officer and the record of the planning will form part of the Safety Case.

The course should be marked with buoys that are clearly visible when in the water. Turn buoys should be at least 1 metre high in the water. All markers should be fixed so they will not move in prevailing water conditions or tides.

COURSE MEASUREMENT AND MARKING

It is important that the course is determined following local advice and historical data and measured well in advance. This is to ensure that changes to the course can be made should weather or water conditions deteriorate. Consideration should be given to planning an alternative course that can be put into effect with the minimum of delay. Course measurement should be conducted using a GPS receiver where practical.

ON-SITE SURVEY

A detailed site survey is a very important task. It may be possible to conduct this at the same time as the planning meeting held one month prior to the event (or earlier), but only if the location is well known and has been used for events in previous years. For a new location the preliminary site survey should be conducted before any detailed planning commences.

Access to the area is very important as this will not only determine how each event should take place, but also, in the event of an emergency, how emergency services would gain access to the start and finish areas and to the course.

The start and finish areas should be clearly defined. The start should be wide enough so the proposed number of competitors can make a safe start free from interference from others. The finish area should be marked so that there is no confusion as to exactly where the finish is, and when the course is completed. If there are a high number of entries it may be necessary to start the event in 'waves' to accommodate the numbers safely.

ENTRY FORMS AND RACE INFORMATION

Competitors, as well as officials and other interested bodies need to have information about the venue, event and the course. This information needs to be as accurate as possible and included on the entry form or information pack. The basic information should include:

- **where:** event location
- **type:** open or restricted entry
- **race distance(s)**
- **event categories:** e.g. age groups, masters, county, district, national.
- **when:** events date(s) and entry closing date
- **times:** briefings, starts, presentations
- **entry fee**
- **water type:** fresh or salt, river or sea, still, tidal or river current
- **locations:** of registration, briefing, start, finish, presentations. Including directions, maps and information on parking, public transport and accommodation
- **refreshments:** before, during and after the event
- **health and safety information:** special local conditions, likely water temperature, amount of daylight, anticipated water conditions and for sea swims of high and low tide variations in water depth, tidal flow and off-shore currents
- **starts:** mixed, separate men and women, master's age groups etc.
- **declaration:** a declaration must be made on an individual's ability to complete the swim. It should be quite clear to the swimmer that they are declaring that they are not only fit enough and have the stamina to complete the distance, but also that the swimmer is medically fit to do so (see Competencies below)

Note: any pre-existing medical condition including medication and/or sensitivity to particular drugs should be included on the entry forms and notified to the Event Administrator of the course on the day. In the event of a pre-existing medical condition and/or sensitivity to a particular drug, then the form shall be forwarded to the event Medical Support Team.

Any alterations to the published information, including safety issues, will be posted in a prominent position at the event site and included in the competitor's briefing.

CATERING

Consideration should be given to the provision of food and drink for the competitors, technical officials, helpers and VIPs, either in the form of pre-packed meals if the officials are located away from the race headquarters or sit down or buffet type meals. Liquid is very important; water and, if possible hot drinks, should be provided. It may be possible to provide food and drink for spectators and coaches; in this case it is desirable to advertise this in advance with the entry forms and to indicate the costs.

PLANNING AN OVERSEAS OPEN WATER SWIM EVENT

Further information on overseas Open Water Swimming can be obtained from the Facilities Department on facilities@swimming.org. Organisers should be aware that this document refers to UK Legislation and therefore when participating in other jurisdictions other laws will apply, which are not covered in this document.







SAFETY MANAGEMENT

THE UK AND EUROPEAN LEGAL FRAMEWORK

Under UK **Common Law** liability to negligence may arise from the breach of a fundamental duty, known as the 'duty of care'. The duty is described as follows: a requirement that a person acts toward others and the public with watchfulness, attention, caution and prudence that a reasonable person in the circumstances would. If a person's actions do not meet this standard of care, then the acts are considered negligent, and any damages resulting may be claimed in a lawsuit for negligence

Owners, operators and occupiers of open water swimming sites must follow the general duties and responsibilities in the UK **Health and Safety at Work Act 1974** and the **Management of Health and Safety at Work Regulations 1999**. They are obliged to take all reasonable and practicable measures to ensure teaching and coaching activities are conducted safely and that any programmed events are managed in a safe and proper manner. They have the overall responsibility for every person on the site.

The UK **Occupiers Liability Act 1957 as amended 1983** imposes a duty of care upon the occupier to any visitors using the premises for the purposes for which they are permitted or invited to be there. Since it is not always possible to fence off much inland water and most coastal waters it is important to understand that the operator may be relieved of liability if a danger is clearly brought to the attention of all visitors attention, coupled with the operator's appropriate precautions.

The UK **Public Health Act 1936** is an enabling law offering local authorities the power to regulate water users through the creation of bylaws. Such bylaws may include:

- regulation of the areas in which, and the hours during which, public swimming, jet skiing, water skiing etc. shall be permitted
- regulations to provide lifesaving appliances
- regulations for the navigation of vessels

WHY EVENTS GO WRONG?

- complacency
- making assumptions
- insufficient research
- failing to seek advice
- lack of planning
- lack of resource(s) (financial and / or volunteers)

WATER SAFETY MANAGEMENT

The Competition Management can rarely, if ever, solve their problems by introducing 'one-off' measures following accidents or incidents (the reactive approach). This strategy normally fails to examine the causative chain of the accident and the underlying weaknesses in the operator's management systems or lack of them.

Another failure is to assume that just because a site has been accident free for a considerable time indicates a 'safe site'. Such a view rarely considers changes in the environment, competitors and event.

All Open Water event operators need to adopt a proactive approach to managing their event risks however they may arise and the starting point is to establish a safety management system, which requires an effective approach to **RISK ASSESSMENT**.

The Organising Team, in particular the Safety Officer, should prepare a plan for managing safety. This plan will form part of a Safety Case for the event. The following points should be considered:

- **swimmer safety:** the swimmers are the most important factor in any Open Water event. Some points related specifically to the competitors are:
 - swimmers must be identifiable with clearly marked numbers and brightly coloured swim hats, which may also be numbered. The promoter will normally provide swim hats;
 - maximum entry - safe number of swimmers to have in the water at any one time;
- **boats:** essential for all open water events. The number and type will depend on the location and type of event. Appendix E details the role of the different types of boats, essential equipment and the personnel they should carry;
- **number of officials and helpers and boats:** the numbers will be determined by the:
 - type of event;
 - experience and age of the competitors;
 - location;
 - proximity and number of water egress points;

Note: The ratio of boats to swimmers is a key consideration. For instance for a lake swim where swimmers are no more than 10 metres from a shore, you may wish to set a ratio of 1 boat to 20 swimmers, whereas for a sea swim where there is no easy access to a landing place away from the start and finish areas it may be better to allocate a ratio of 1 boat to every 6 or 8 swimmers;

- **communications:** the Safety Officer will establish the level of communications required when carrying out the risk assessment. The type of communications required and who should be included will be detailed in the Safety Case;
- **multi-tasking:** administrative pressure may mean that more than one official's role is undertaken by one person. In some cases such as the Starter this may be possible. However, under no circumstances should the Safety Officer, lifeguards and spotters have additional roles that may distract them from supervising the safety of the swimmers;
- **first aid cover:** provision of first aid cover is essential, consideration should be given to where this is located and whether there is a need for first aid expertise in the safety boats;

- **emergency procedures:** including the triggers for shortening the course or abandoning the swim. These triggers will include:
 - the maximum safe sea state,
 - maximum wind speed,
 - forecast of an imminent electrical storm
 - interference on the course by other boat users.
- **event cut off point:** the time after which all competitors must have left the water;

All decisions regarding the management of safety will be recorded in the Safety Case.

RISK ASSESSMENT

The circumstances and configuration of Open Water areas vary greatly: a standard solution to cover every open water area is not practicable, so risk assessment is the essential first step when organising an Open Water event.

Risk Assessment must:

- identify hazards
- assess risks
- indicate, as far as is practicable, the measures required to control these hazards and risks

These control measures should then be incorporated in written Open Water Safety Operating Procedures (OWSOP), which consists of a Normal Operating Plan (NOP) and an Emergency Action Plan (EAP). When preparing these, the Open Water area operator and/or the Event Manager should consult fully with swimmers and coaches, British Waterways, Local Water Board, local authority, coastal authority and coast guard service and/or any other appropriate regulatory or managing authority.

The OWSOP must clearly state the safety and supervisory requirements for all activities in the designated Open Water area.

Swimmers and Coaches must be familiar with and practiced in the relevant aspects of the OWSOP. This helps to ensure the consistency of standards.

SAFETY FACTORS IN RISK ASSESSMENT

Each designated Open Water area will have unique features that make particular demands on safety.

This section highlights six important factors.

› Open Water Area Configuration

- shape and blind spots
- type of entry and exit
- layout of the swimming course

- blind spots resulting from the position of natural features
- noise together with glare, reflection and lighting from the sun
- placing of turn buoys or boats
- underwater inlet/outlet sources
- placing of feeding stations

› Depth

Its importance in relation to the ability of the swimmers includes, but not limited to:

- the depth and extent of shallow water areas
- the extent of deep water areas
- the open water area floor profile, in particular sudden changes in depth, possible debris and type of floor material i.e. sand, rocks, seaweed etc.
- the possibility of being able to segregate the shallow water area and hazardous floor areas (e.g. roping off and using a boom)

WATER AND AIR QUALITY

The factors that need to be considered are:

› Water Temperature

The temperature of the water is a major factor in the safety of the swimmers. Temperatures both high and low can have serious effects on the swimmer and therefore recommendations for both maximum and minimum temperatures are explained and included.

› Minimum Temperatures

Currently, there are more existing standards surrounding minimum temperatures that swimmers should be allowed to swim in competition. The current FINA Rules state that a minimum temperature of 16°C to be achieved in order for the event to be run. For the National Associations this temperature is also 16°C with a minimum average temperature of 18°C for masters swimming.

Under the FINA Rules and National Association Laws and Regulations of Open Water Swimming, wet suits are not permitted, whereas in Triathlon events, where one third of the sport is the discipline of swimming, wet suits are allowed when the water temperature is below 20°C for open and elite category athletes and 22°C for amateur and age group athletes.

It is recommended that participants in an Open Water Swimming event, that takes place in water where the water temperature is below 16°C, should wear a wetsuit.

For low level Open Water Swimming events and mass participation Open Water swim events that are not linked to FINA or a National Association competitive structure, event

operators may wish to relax the prohibition of wet suits for safety reasons particularly in cold water environments. However, there is a danger when wearing wetsuits in hot water or warm air temperatures as there is the possibility of overheating.

There is a guidance document that suggests wets suits should and should not be worn within the following parameters.

The use of wetsuits is forbidden or mandatory if the following combinations of distance and water temperature are attained:

Swim Length	Forbidden Above
1500m	22°C
1501-3000m	23°C
3001-4000m	24°C

*Races where wet suits are worn will not count towards regional, national or international qualifying competition.

› Hypothermia (see also Facilities in case of Hypothermia below)

Hypothermia is a potentially fatal condition that occurs when the core body temperature falls below 35°C. The effects of the cold on the body are more significant in swimmers as the water acts as a major conductor of heat from the body and the effects of hypothermia can be accelerated when submerged in water. Heat conductance is 26 times greater in water than in air, therefore the speed with which the human body cools to dangerous levels is far more rapid.

› Maximum Temperatures

Currently there are no international rules stating an upper limit for the water temperature. However, there is a need for an upper limit of water temperatures and this is recommended for a number of reasons:

- Whilst it is comfortable to bathe in warm water, performing vigorous exercise is very different. The human body reacts to the ambient temperature surrounding it, and in higher temperatures it tries to sweat to maintain a core temperature of around 37°C. When the water temperature is high sweating becomes ineffective and the core temperature can begin to rise.
- In warm/hot water the body temperature begins to rise and the heart rate increases. When vigorous exercise is factored into the equation (as will be the case in competitive swimming events) the body temperature can raise to such a level that symptoms such as heat exhaustion and heat stroke can occur often leading to unconsciousness. In water this can be fatal unless a rescue is affected in a very short time scale.

The recommended maximum water temperature for the conduct of an Open Water Swimming event, irrespective of distance, is 28°C. If the water temperature is above 28 °C an event should not be held.

Where the water temperature exceeds 27°C (80.6°F) and the ambient air temperature is 5°C or more higher than the water temperature, the event, no matter the distance, will be postponed until the ambient air temperature has decreased by a minimum of 2°C.

Consideration should also be given to the timing of the event as water temperatures can fluctuate depending on when the temperature of the water is taken. For example, the water may be cooler in the morning than in the afternoon/evening.

› Overheating (see also Facilities in case of Overheating below)

A human body suffers heat stroke when the body temperature rises so high that it overheats the brain, causing unconsciousness. There is a higher propensity for this to occur when the body is subjected to exercise, particularly in hot weather, because food is converted to energy by a series of chemical reactions, each of which release heat. The sum of the reactions convert more than 80% of the energy into heat, while less than 20% is actually used to drive the body's muscles. That means that the higher the intensity of the exercise, the higher the body temperature can rise. Thus, the circulatory system has to work very hard to keep the body from overheating. During exercise, not only must the heart work harder to pump oxygen from blood in the lungs to the muscles, it must also pump heat in blood from the muscles to the skin where the body perspires and it evaporates to cool the body off.

Several factors increase the chances of developing a heat stroke such as when the outside temperature and humidity are high; the swimmers are not in shape; the swimmer takes certain medications; or is sick; or is dehydrated. Aspirin does not keep the body temperature from rising during exercise because aspirin lowers fever by making a person sweat. As previously highlighted exercise can make the body sweat, taking Aspirin will not encourage the body to sweat at an increased rate.

To protect swimmers from heat stroke when they are competing or training, they should start out slowly and gradually increase their pace. This gives the body time to circulate the heat to the skin where heat can be dissipated; this is much more difficult in hot water than hot air. They should drink fluids long before they are thirsty. However, in competitive Open Water events feeding stations are not permitted below 10km event. Consideration should be given for mass participation and long events to include feeding stations and also review the number of stations on a course for the event of 10km or over and the distances between them. Once someone is thirsty, they are already dehydrated, having lost at least 2 pounds of fluids. It is recommended to

drink whatever is preferred at least every 15 minutes and be aware of the symptoms of rising body temperature. It might not be possible to achieve this in a swimming event but it highlights the frequency with which hydrating should be considered. When the body temperature rises above 38.8°C the muscles often start to burn, when the temperature is over 40°C it usually results in shortness of breath and when your temperature rises above 45°C, signs of brain distress becomes apparent, such as a headache, blurred vision, ringing in the ears, dizziness, nausea and passing out.

It is important that the swimmer is identified prior to the later stages of brain distress. At this stage the activity should be stopped and the signal made to the nearest rescue vessel, kayak or life guard to perform a rescue and administer emergency first aid. Source: *Gabe Mirkin, M.D.*

› Existing guidance on temperatures for Swimming Pools in the UK

There is far more guidance about safe practice of swimming when in the environment of an indoor swimming pool. Although the temperatures in which we now swim have been steadily increasing over the years guidance still exists to recommend temperatures for different types of usage.

In the UK the guidance comes from the Pool Water Advisory Group in the form of a Publicly Available Standard 39 (PAS 39) published by the British Standards. Current guidance is as follows for the maximum recommended temperatures:

Recreational, adult teaching, conventional main pools	29°C
Leisure Pools	30°C
Children's swimming lessons, school swimming lessons	31°C
Babies, young children, disabled	32°C
Hydrotherapy Pools	35°C
Spa pools and Jacuzzis	40°C

› Measuring Water Temperatures

The water temperature should be measured by the Course Officer in the company of the Safety Officer at the start point and at each turning point along the course on the day before the race and checked again on the day of the race approximately 1 hour before the start. Preferably, the temperatures should be taken at 40cm depth.

› Air Temperature

Air temperatures are not as critical for Open Water Swimming as they are in an indoor swimming pool where they can affect humidity, cause condensation and corrosion.

The water temperature will generally be in balance with the air temperature and will be cold when the water is cold and warm when the water is warm. Therefore, concerns for the swimmer related to excessively warm or cold water apply equally to the air.

Hazardous variations can develop when the water and air temperature are out of synchronisation; for example where warm air above very cold water can cause vapour mist above the water causing poor visibility and lifesaver observation.

However, the main hazard in relation to air temperature is excessively high temperatures and solar radiation on the head of the swimmer that can cause heat stroke.

› Air Temperatures and Shade

The temperature of the air can affect the officiating staff supervising the event. Care must be taken to ensure that the staff has adequate shade to provide cover from the hot sun. It has been documented in previous literature, including *Managing Health and Safety in Swimming Pools*, (published by the HSE) that working in hot atmospheres can reduce the concentration of the staff member. Whilst this is referring to the indoor environment it applies equally if not more so to outdoor events. Feeding stations, turning boats, lifeguard and official stations should all be considered if excessive solar heat is a factor.

› Humidity

High humidity levels can cause discomfort and heat exhaustion and it is recommended that swimming in equatorial climates with humidity levels in excess of 70% should be restricted to shorter distances.

› Minimum Visibility Standards

Events should not take place where swimmers cannot see the next turning point and where lifeguards cannot clearly see all the swimmers within their zone of control.

› Water Quality

Water quality is of prime importance. Open Water event organisers must research the water quality of the designated competition area as advised by Defra. (See Appendix C).

The Environment Agency/National Rivers Authority/ Coastguards should be contacted before the event for advice on the area of water to be used. Water testing should be arranged and the results for competitors to view prior to the event and a copy of the water test certificate lodged in the Safety Case.

› Ice

Generally swimming in waters with formed ice is not recommended, neither is the breaking of ice to enter the water recommended. Obviously water with formed ice is significantly below the recommended water temperature for Open Water Swimming and the danger of accidentally slipping beneath the ice is potentially fatal.

It is recognised that some Open Water Swimmers specifically desire to swim in excessively cold water and although it is not recommended some guidance is available. This is specifically related to acclimatisation of the swimmers body to cold water and it is suggested that

swimmers who wish to swim in excessively cold water should immerse themselves in cold water every day so that the 'shock' to the system is minimised.

› Algae

Algae are a large and diverse group of simple, typically autotrophic organisms, ranging from unicellular to multicellular forms, such as the giant kelps that grow to 65 meters in length. The largest and most complex marine forms are called seaweeds.

When conditions are right for example in the summer months they have a habit of rapid growth, which can cause blooms across large areas.

While there have been no reports of long term illness or death, the toxins the algae produces can be toxic and can cause sickness.

When picking venues for Open Water Swimming events each venue should be chosen based on its environment and susceptibility to Algal Blooms and other potential causes of postponement or cancellation.

Although not always harmful it is a sensible precaution to avoid contact with blue-green algae, hence if large blooms do occur, the Event Organiser and the Safety Officer should look at postponement or cancellation for the safety of the swimmer.

› Bacteria

Bacteria are single-celled micro-organisms which can exist either as independent (free-living) organisms or as parasites (dependent upon another organism for life).

Open Water Swimming events are primarily concerned with bacteria that can live in water and that can enter the human system either through open wounds or by swallowing.

For example, faecal coliforms and faecal streptococci are types of bacteria found in sewage and animal excreta whose presence in high numbers indicates poor water quality. Although not necessarily disease-causing themselves, high levels of these indicator bacteria at a site indicate that disease causing organisms may be present.

A micro-biological water test can ascertain the level of harmful bacteria in the water sample and indicate whether an Open Water Swimming event is safe to take place.

› Leptospira

Leptospirosis (also known as Weil's Disease) is a bacterial disease that affects humans and a wide range of animals, including mammals, birds, amphibians, and reptiles.

Leptospirosis is a relatively rare bacterial infection in humans. The infection is commonly transmitted to humans by allowing water that has been contaminated by animal urine to come in contact with unhealed breaks in the skin, the eyes, or with the mucous membranes. Outside of tropical areas, Leptospirosis cases have a relatively distinct seasonality with most of them occurring August–September/February–March.

Any potential Open Water Swimming site that shows a widespread infestation of rats should be carefully screened for this bacterium.

› Tarry Residues

Tarry oil residues are dumped deliberately and accidentally in both inland and marine environments by ships, boats and industrial process. Signs of floating oil and petrol indicate an unsuitable swimming environment.

› The Maximum Safe Sea State

Current speed and direction can be very localised, varying greatly over short distances as bottom contours and shoreline configuration alter both the current's speed and direction of flow as well as spinning off eddies. The information the Open Water Swim Event Organiser needs is usually available from the Coastguard or British Waterways. A minimum current is desirable for an Open Water Swim event but is unlikely to be achieved in a river with a constant current and in off-shore swims. A circuitous course can cancel out the alternative effect of speeding up and slowing down the swimmer but generally swimming into a current or swimming at an angle to a current can be very tiring. The effects of waves and swell have similar effects and an event should take place at a sufficient distance from the shore to avoid undertows and riptides.

› Maximum Wind Speed

An Open Water Swim event should not take place in gale force wind conditions and it is certainly impossible to conduct an Open Water Swim event with waves in excess of 0.2m. Therefore, it is recommended that Open Water Swim events should not take place in conditions above the Beaufort Scale 2, unless the course is sheltered from prevailing winds. (See Appendix K)

› Forecast of an Imminent Electrical Storm

The weather forecast for the event day should highlight the possibility of electrical storms and this information should, be conveyed to the participants with the appropriate plans for curtailing the event. A visual warning of an impending electrical storm usually give at least 15 minutes warning of electrical discharges reaching the Event course and such a visual warning should immediately activate the evacuation procedures out of and away from the water.

› Interference on the Course by Other Boat Users

The course must be made safe from possible infringement from other boat users and in particular fast boats and jet skis. If required, security craft must be employed to prevent other water craft entering the event area. These security craft are not to be confused with swimmer safety boats whose sole responsibility is swimmer safety and welfare and security craft should not exercise a multi-purpose safety role.

PHYSICAL CONTAMINATION

› Glass

Discarded glass, particularly broken glass, can be a major hazard in shallow water and at the entry and exit points to Open Water Swimming events. The area must be searched and if necessary cleared before the event is allowed to go ahead.

› Plastics

Hard plastics are also capable of cutting skin and the same diligence as applied to glass should be observed. Soft plastics and polythene that floats can be an entanglement and a trawl of the swimming area should be undertaken prior to the Open Water Swimming event to remove any such hazards.

› Waste/Litter

In addition to glass and plastics the removal of all other hazardous waste should be ensured and in particular paper, cardboard, rubber products, tin cans and can pulls etc.

› Sewerage

Like oil, diesel and petrol ships and boats frequently discharge untreated sewerage into water. Visual signs of floating sewerage indicate an unsuitable swimming environment. Consider the following:

- pollution levels
- currents and tides

ENVIRONMENTAL CONDITIONS

The Risk Assessment will detail expected conditions and identify at what point a change in conditions should trigger some action by the Safety Officer. Deterioration in the weather or light conditions, a reduction in water temperature, change in tidal flow or wave height will all contribute to any decision by the Safety Officer to alter the course, curtail or cancel the event.

The minimum temperature should be taken as specified in the National Association or FINA Rules as appropriate. For all Open Water Swimming alternative plans should be made in case environmental factors make the swim unsafe – these plans will dictate whether the event is curtailed, postponed or cancelled.

OPEN WATER AREA ORGANISATION

The arrangements of the event must be considered:

- who has the responsibility for the Open Water Swimming area?
- is there exclusivity of use?
- is there shared use with other activities?
- if use is shared what are the implications? (e.g. lifeguarding responsibilities)

STAFFING

The skills and experience of staff and the ratio of swimmers to coaches (training) and lifeguards (training and competition) are important and consideration needs to be given to:

- competencies, qualification and number of coaches and lifeguards required;
- competencies, qualification and number of first aiders required;
- skill of coaches and lifeguards;
- degree of support and help provided by appropriate helpers;

SWIMMERS AND ABILITY

The factors to be considered include:

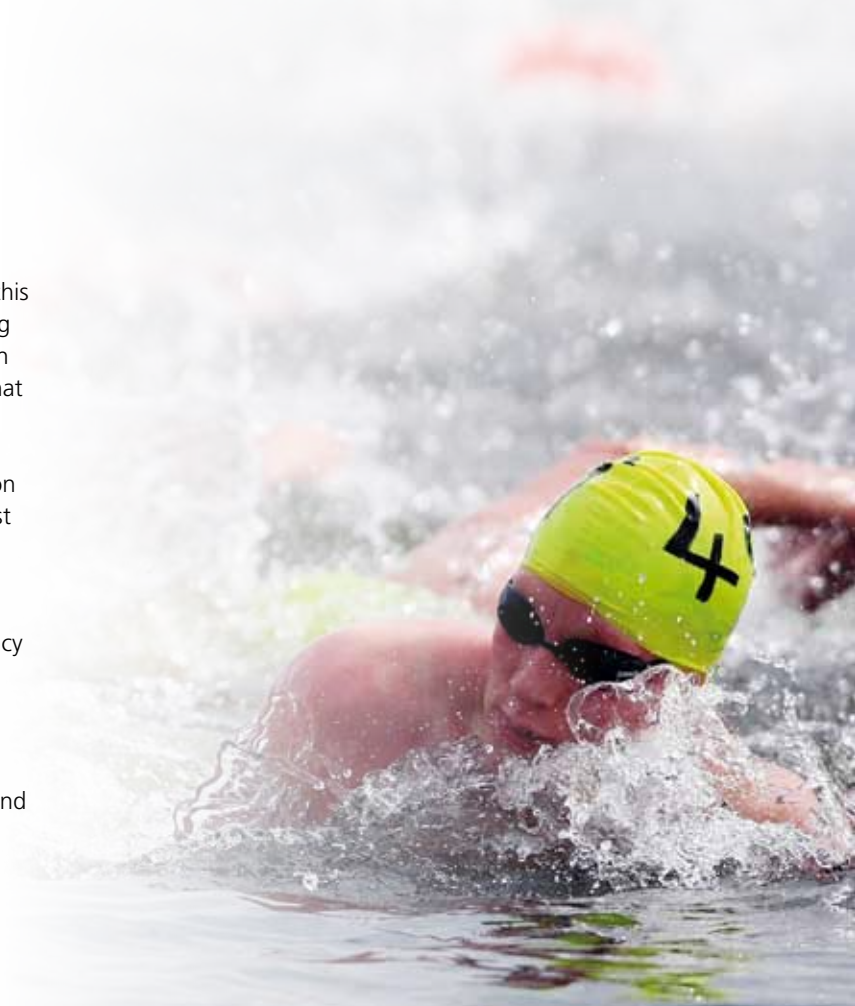
- age of swimmers;
- range of their swimming ability;
- ability of swimmers to comprehend instructions;
- number of swimmers;

A full Risk Assessment will be carried out. The results of this will be an integral part of the Safety Case. The Organising Team will make sure that the choice of water for an Open Water Swimming event is suitable for the purpose and that the competitors are not being placed in any danger due to the location or condition of the selected water. Before an area of Open Water is used for an event, depending on whether it is a sea, lake or river, the following points must be considered:


- **site conditions:**
 - access for competitors and officials and emergency services;
 - start and finish points – entry and exit hazards, particularly underfoot;
 - proximity of start and finish points to changing and briefing facilities;
 - provision of toilet facilities;

- emergency exit points – later exit points where swimmers can get ashore in emergency.
- **water conditions:**
 - temperature – likely temperature on the day and minimum / maximum acceptable temperature;
 - currents or tides;
 - water quality (to EEC standard);
 - clarity of water;
 - minimum depth – not less than 1 m at any point;
 - maximum water depth;
 - other water users.
- **weather conditions:**
 - normal weather for the time of the year;
 - likelihood of electrical storms;
 - wind, effect on the water conditions and risk of wind chill.
- **other hazards:** hidden, overhanging or underwater;

The Risk Assessment will form part of the Safety Case, which will also note results of consultations with regular users of the chosen water, including but not limited to – fishermen, lifeguards, canoeists, recreational boaters, divers, wind surfers, water skiers and jet skiers.







GENERAL SITE ISSUES

TRAVEL TO AND FROM VENUE

The Risk Assessment process for the day of the event must start with the accessibility of the event site. Open Water sites are often not easily accessible by conventional travel arrangements and can be quite remote from traditional traffic routes. Therefore, it is essential that the approaches to the site are well signposted by the Event Organisers and that there is sufficient space to accommodate car parking and coach parking at a reasonable distance from the event start/finish point. Volunteers may be required to man the car park and supervise traffic flows into and out of the site.

CONFIGURATION OF COURSE

The configuration of the course will be determined by the site geography and the distance of the event. Variations will include a traditional 'loop' course usually with a lap distance of 1,000 m. This has the advantage of the course being able to be adjacent to the bank or beach with land based lifeguards being deployed.

At the other end of the configuration will be the single linear distance swim, which can normally only take place in a very large lake, maritime bay or estuary. From a safety perspective this is the worst scenario to supervise as the swimmers can be at a considerable distance from land during the middle period of the event and only marine craft supervision is available.

ACCESS AND EGRESS

There will be a variety of available access/egress points for Open Water Swimming events. From a health and safety perspective the safest involve a wade into the water and an 'in-water' start; in this case a beach entry is often useful. However, this assumes that the bottom profile of the Open Water access point is a safe, solid and an unrestricted area. The availability of a jetty or 'pontoon' extending into the water may be an advantage for controlled starts.

A start that requires lowering or jumping into deeper water is more hazardous and the Event Organisers must be sure that the bottom profile of the event area is safe for this entry method to be employed (see Diving and Jumping into swimming pools and Open Water areas).

There must also be a suitable, safe and fair event finish point that allows times to be accurately recorded. FINA Rules refer to a vertical wall preferably 5 m wide but not less than 2.5 m wide. Video footage of the finish is also desirable.

Special consideration should be given to any water area between the finish point and the exit from the water as this may, by default, be an unsupervised water area.

Additionally at the start/end of the event there must be sufficient dry land area to manage the entry and exit control system.

SHALLOW WATER

Shallow water is generally a disadvantage as it increases the possibility of collisions with underwater obstructions. A water depth over the length of the course in excess of 2m is desirable. However, FINA Rules state that a minimum depth of 1.4 m at any point in the course is required. Alternatively, in the case of mass participation events and junior events it may be a positive advantage for swimmers to be able to stand when fatigued; therefore, it is important to be aware of the bottom condition and ensure they are not hazardous and provide a firm footing.

FEEDING STATIONS

Feeding stations must be securely fixed and not subject to tide, wind or other movements. Feeding poles are not to exceed 5 m in length. No objects, rope or wire may hang off the end of the feeding poles except national flags with a dimension of 30 cm x 20 cm. The swimmer, when feeding, may stand on the bottom if possible. Accordingly, it is essential that the depth around the feeding platform is indicated to the swimmers and that any shallow water area is safe and clear of debris.

The number and size of feeding stations will be determined by a risk assessment that will take into consideration the water and air temperatures, water conditions and the number of participants and their support coaches.

For example:

- **for races less than 5 km:** no feeding stations are required
- **for races between 5 km and 10 km:** a minimum of 1(one) feeding station is required.
- **for races of 10 km (or longer):** a minimum of 2 (two) feeding stations are required

EVENT ADMINISTRATION

Event administration must obviously comply with FINA Rules and/or the National Associations Laws and Regulations but in addition event administration must ensure that English Health and Safety Legislation or safety legislation of any other relevant authority or jurisdiction is complied with. The prime requirement is to undertake a written Risk Assessment of the event and the event site and administer the event within the parameters of the Open Water Safety Operating Procedures.

VACCINES

No compulsory vaccinations are required for Open Water Swimming in the UK but hepatitis A, polio, typhoid, and tetanus are recommended. Recommended vaccinations for other overseas sites are listed on the Foreign & Commonwealth Office website at www.fco.co.uk.

TRAVEL OVERSEAS

Travelling to events overseas can be effected in two ways; either with a recognised British Swimming Team, National Association or club team, or as an independent individual. Travelling with a recognised team may provide significant support to the swimmer and may provide administrative and safety support.

Travelling and entering an event abroad as an individual can often mean that the swimmer is left out of the briefing system.

HOW TO DETERMINE IF THE EVENT SHOULD PROCEED

The obvious responsibility as to whether an event should proceed or not is the responsibility of the Event Organiser in the persons of the Chief Referee, Safety Officer, Medical Officer and Course Officer who will normally make a decision collectively; although in the event of disagreement the final decision shall be made by the Safety Officer.

Decisions to abort an event will normally be made if the Risk Assessment of the event indicates that safety guidelines are not met and that the Operating Procedures cannot be adjusted to create a safe environment for the race. Advice given to the Event Organisers by local experts in the event site i.e. Coastguard, local Environmental Health Officer and Park Ranger should be given serious consideration and it would be normal practice to abort an event if such advice suggested that course of action.

It is understood that in various circumstances swimmers, team leaders and coaches may be uncomfortable with the Event Organisers decision to proceed with an event. This concern may be caused by a lack of communication or because the various parties disagree over the safety parameters of the event. For this reason it is important that the Operating Procedures for the event are clearly identified and that the Risk Assessment outcome is clearly recorded and available to view.

If a swimmer decides that the conditions for the event are unsafe even though the Event Organiser has decided to proceed; the swimmer is entitled to withdraw.

Equally due to a swimmer's desire to meet qualification standards, pressure may be applied to continue the race despite unsuitable and unsafe conditions; these pressures must be resisted.

At all times, the priority must be to safeguard the health and safety of participants. The outcomes of the event must never influence such decisions.

SAFE SUPERVISION

› Types of Supervision and Roles

Supervision of the Open Water event site can be achieved by a variety of methods but generally the closer and more personal the supervision the safer the swimmer is. For example, aerial supervision from a helicopter can give some startling and impressive views of the race and may well be used by television for major events but the ability to spot a swimmer in difficulties is poor and the means to affect a rescue even less.

› Land Based Lifeguard

If the location of the event permits, land based lifeguards are preferred because they are on stable ground can communicate quickly and easily with other lifeguards and event organisers, can be relieved easily and can be provided with equipment to assist their role. Zoning of the event area can be more logically defined with a better understanding by the lifeguard of his span of control.

› Supervisory Craft

Depending on the environment (off-shore or inland water) there can be a variety of safety craft stationed along the course. It is important that supervisory craft can reach a struggling swimmer quickly; so small, light boats are more useful as a first contact craft i.e. canoes of various types. However, the canoe or craft must be sufficiently robust and balanced to allow a swimmer at the very least to hold on securely whilst being taken to the shore.

› Spotters

A spotter is an unqualified helper assisting the lifesaving supervision personnel to observe the race participants. The spotters must be additional to the qualified and competent lifeguards and not be seen as a suitable replacement for lifeguards or as part of the calculation for adequate span of control of the event. The spotters should be supervised by an allocated competent lifeguard in his allocated zone.

› Safe Supervision

To achieve safe supervision of an Open Water Swim event there should be an adequate number of competent lifeguards. This can be interpreted as a ratio of **lifeguards to swimmers**; or **lifeguards to area**.

This is the defined span of control.

› Span of control & the number of safety staff

Lifesaver to Swimmer: the UK has several existing spans of control expressed in terms of lifesaver:swimmer these can

be found in the document "Safe Supervision for Swimming Teaching and Coaching" and these relate to programmed swimming activities in swimming pools. The most significant ratio refers to competent club and competitive swimmers being supervised by a coach/lifesaver at a ratio of 30:1.

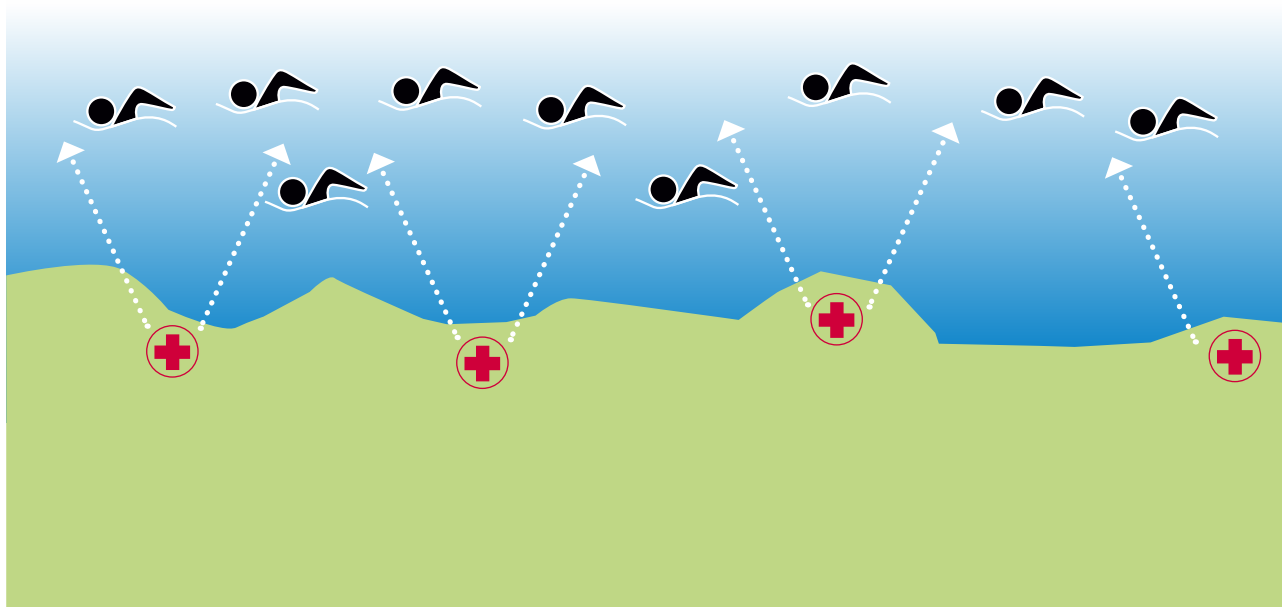
Lifesavers:Area: the UK has several existing spans of control expressed in terms of lifesaver:area. These can be found in "Managing Health and Safety in Swimming Pools" and these relate to un-programmed swimming activities in swimming pools. The most significant ratio refers to a swimming pool area of 1000m² and suggests a minimum lifeguard provision of 4 and a minimum number of lifeguards in busy conditions as 6.

It can immediately be seen that these spans of control are not appropriate for Open Water Swimming for two reasons.

1. the number of participants in an Open Water event far exceed any current lifesaver:swimmer ratio; and
2. an Open Water event generally takes place in an area no less than 50,000m².

Applying the logic as applied in swimming pools would suggest a lifesaving provision of 300 lifeguards per 5 km event!

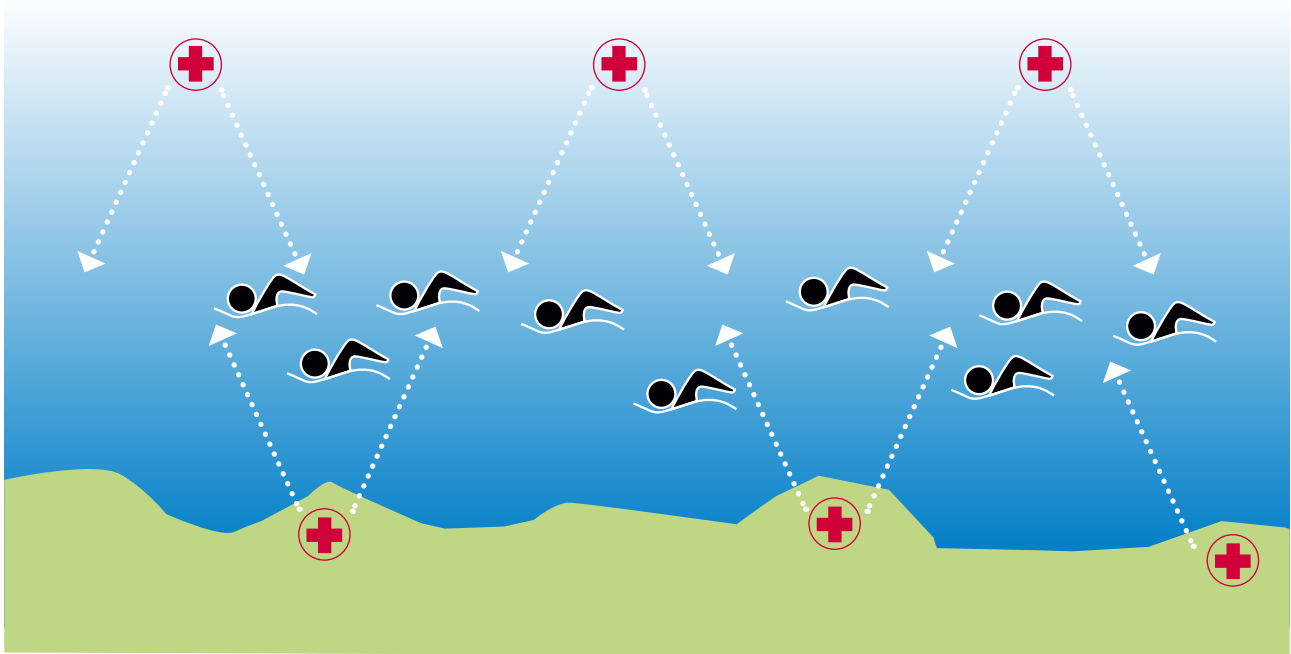
Logic dictates that the span of control must inevitably relate to area and the internationally recognized concept of 10:20 (A scanned supervision zone of 10 seconds and an incident response time of 20 seconds. However, although the 10 second zone scan is feasible the 20 second response time may not be due to the configuration of the Open Water course). The course must be zoned to create identifiable sections overviewed by the competent lifeguard. The size of these zones is open to interpretation as the conditions of the course will influence vision and reaction time.



An additional way to reduce the span of control to manageable proportions when a large number of swimmers are participating is to send the competitors away in waves, either by age grouping or sex. It is recommended that 'waves' should not exceed 100 swimmers in total and this should contain the number of swimmers in each supervised zone to manageable proportions.

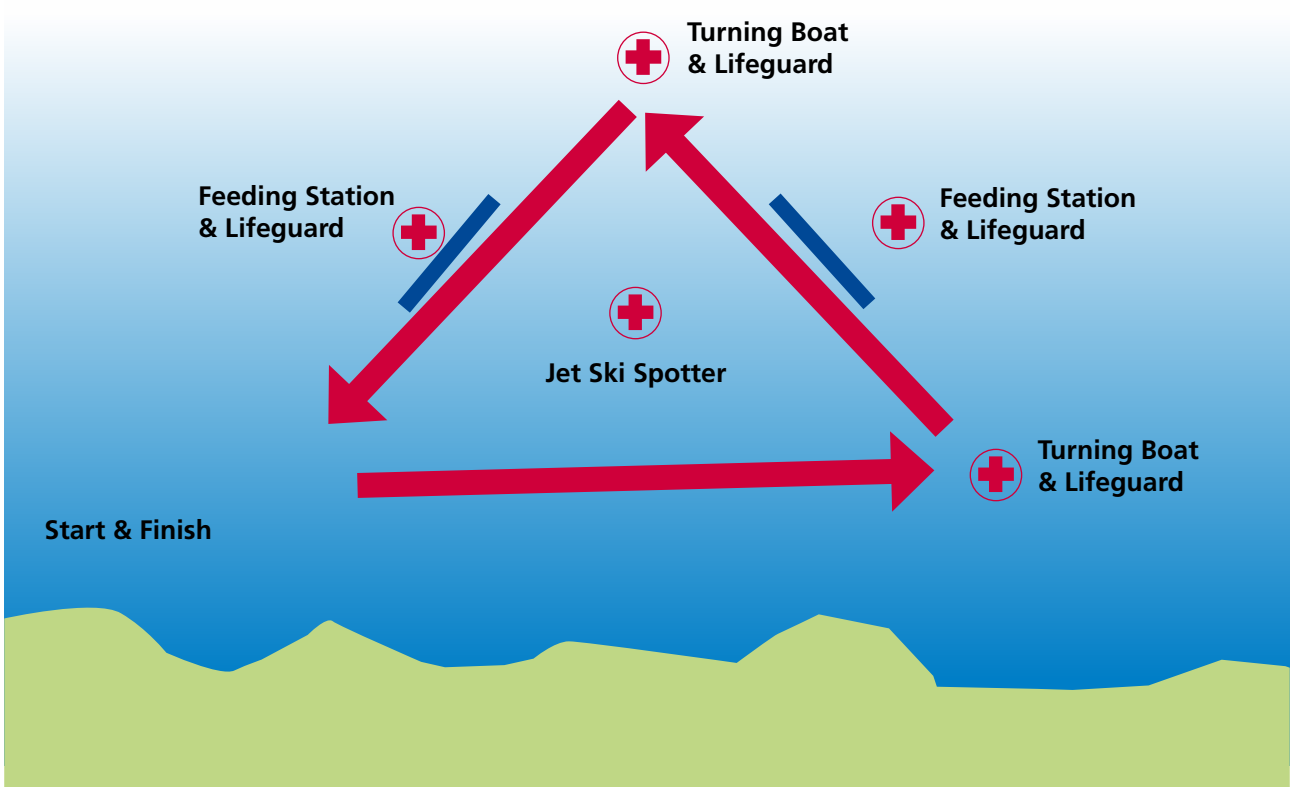
By using this assessment method a 1km course would need approximately 20 lifeguards spread along the course.

This shore lifeguard requirement can be reduced if kayak or jet-ski mounted lifeguards are placed on the opposite side of the course.



More complex course layouts would need to place lifeguards at appropriate points.

For example:



Spotters and lifeguards on boats will increase their supervision capacity by operating on interior lines where possible, thus reducing distances to swimmers.

› Competencies – Lifeguarding

As with the span of control there are indoor swimming pool lifeguard and lifesaving competencies that are not entirely appropriate for Open Water Swimming conditions. The most appropriate UK qualification is the RLSS Beach Lifeguard qualification but again it is primarily for un-programmed activities. Additionally, it is unlikely that sufficient lifeguards with the appropriate qualifications will be available for any individual event.

However, it is not inappropriate to utilise lifeguards with the RLSS National Pool Lifeguard Qualification for Swimming Pools, particularly in more benign inland lakes, and general RLSS Lifesaving qualifications that have sufficient rescue skills incorporated into their competencies.

Equivalent qualifications and competencies would expect to be applied for events in other countries by the agencies providing training in lifesaving.

› Response times

Rescue response times will vary based on the conditions on the course but the objective must be to minimise the response to a reasonable time. This is achieved where the land is far from the event course by the use of rescue boats and canoes.

PARTICIPANT PROFILE

Just like in major land based marathon races participants in Open Water events, especially the longer distance swims must accept that there is a greater element of personal risk and responsibility by the swimmer and this must be an important consideration when risk assessing the event and communicating the hazards to the swimmers.

As the profile of the participants is critical to the safety of the event it is necessary for the Event Organisers to take precautions by 'vetting' the participants to establish their suitability to take part.

› Age

FINA Rules require swimmers to be at least 14 years of age for any event.

ASA Regulation (410.4) requires the following minimum ages to apply for each event:

Events up to and including 1,000m	11 years
Events up to and including 2,000m	12 years
Events up to and including 10,000m	13 years
Events over 10,000m	16 years

› Competence – Participant

For certain events qualifying times from swimming pool time trials are accepted as an indicator that a competitor is competent to swim at the distance required. However, in mass participation events there is no such restriction. Promoters are advised to seek some indication of the swimmers capabilities prior to the event either by a self-certification process or by coach certification process.

It may be appropriate for the Event Organiser to stipulate a Condition of Entry. For example:

- By entering the 1 km swim, you will declare that you can swim at least 2000 m non-stop in a pool (the equivalent of 60 lengths in a 25 m pool)
- By entering the 5 km swim, you will declare that you can swim at least 75000 m non-stop in a pool (the equivalent of 240 lengths in a 25 m pool)
- By entering the 10 km swim, you will declare that you have already swum a 5 km event.

› Experience

A record of a swimmers experience at swimming Open Water distances is a good indicator of competence.

Open Water events do not have turns and short swim mentality i.e. 25 m & 50 m; organisers and swimmers should be aware that swimming a distance in a swimming pool and swimming the same distance in Open Water is not necessarily compatible and it is recommended that competitors should be able to comfortably swim double the open water race distance in a pool.

CONTROL OF SWIMMERS

An understanding of FINA Rules the National Association (ASA) Open Water Swimming Laws and Regulations is essential for officials, swimmers and coaches.

› Visual

The primary control of swimmers during an event will be visual by the Event Organiser's officials and lifeguards. The use of binoculars may be an essential tool to aid visual awareness. Additional controls can enhance safety such as the use of technology, the registration process and head counts at turning boats or feeding stations.

› The Use of Technology

Technology is a useful tool to control an Open Water event especially those with large numbers of participants. Obviously timing equipment is important and any electronic system that records the completion of the swim and exit of the swimmer from the water is a vital indicator of completion. Recording the entry and exit of swimmers from the water both at the start and finish but also at intermediate points where swimmers retire from the event.

› Registration

From a safety perspective it is important that the registration details are correct and that registrations, competitors and issued race numbers and hats correlate.

DURING THE RACE

› Start

The start of an Open Water Swim race can be from a fixed platform or from in the water, shallow water depth or deep water. FINA Rules and/or ASA Laws and Regulations do not stipulate the method of entry into the water by the swimmer, but from a safety perspective it is essential that the swimmers are aware of the depth at the start particularly if the start is from a platform and whether or not a dive is safe. Event Organisers should establish a safe method of entry and indicate this to the swimmers, coaches and team managers prior to the event.

› Finish

Where possible the finish should be a vertical wall at least 5 m wide and should be clearly marked by a row of buoys which narrow as they get closer to the finish wall.

Automatic Officiating Equipment used for timing competitions that include a transponder worn on the wrist of each swimmer is an additional safety feature that ensures all competitors are accounted for at the end of the event.

› Finish to Water Exit

Supervision of swimmers must continue across this area.

› Course

Wherever possible the course should be designed to maximise safe supervision, this would preferably permit both land based and water borne lifeguarding that minimises the span and zones of control.

› Entrance to/Exit from Water Procedure for not Finishing the Race

From a safety perspective swimmers that do not finish the race have an increased risk factor as the reason for not finishing the race may be due, for example, to fatigue and/or illness. The procedure must ensure that the Event Organiser records that the numbers in the water have reduced and this information should be relayed to the relevant lifeguarding personnel. A review of swimmers that do not finish the race should be undertaken post-race to build up a profile of swimmer issues and develop an awareness of difficulties that swimmers experience both with their own performance and the event course. This information may be invaluable for future events.

› Types of Equipment/Craft

The number of boats and their roles are defined by the course configuration, size and number of swimmers. In addition to the referee's boat, the race judge' boats and the turn and finish boats a number of allocated rescue boats and canoes are required to effect rescues of swimmers in trouble.

Boats used in Open Water competitions under the National Association Laws and Regulations can be identified by their roles. The three main roles are:

Safety Boat: has a remit covering the whole of the course and competitors. They will be used to carry event officials such as, referees, the course officer and race judges. In events of over 10km race judges in safety boats will be allocated to an individual swimmer and will carry out the roles of the escort safety boat.

Escort Safety Boat: a special type of safety boat used only in events over 10 km. It has the same functions as a general safety boat. However, it is dedicated to a single swimmer and will carry the swimmer's coach or representative as well as a race judge and the boat crew.

Rescue Boat: a fast boat capable of navigating the whole course quickly. The object will be to monitor the whole course and be capable of rescuing any swimmer, boat crew or spectator who may get into difficulty during the event. No race official with a duty of judging any technical aspect of the event should be carried on board.

Communications will be by radio, keeping in touch with the Safety Officer, referees and other bodies such as the coastguard. Personnel on the rescue boats should be competent lifesavers and it may be advisable to have at least one rescue boat with trained rescue scuba divers aboard to affect deep underwater rescue.

Boats carrying officials are usually powered craft and all boats should be navigated by a suitable competent person.

Kayak: In addition to dedicated fast rescue craft it may be desirable to employ kayaks manned by qualified canoe lifeguards. These can be deployed around the course at the direction of the Safety Officer. They will act as extra eyes and ears looking for actual or potential safety problems. They can be a distressed swimmer's first line of aid, providing buoyancy and the ability to tow the distressed swimmer away from the pack to a position where a rescue boat can take over. In events of 10 km and under, a kayak may be designated as escort safety craft. In this case the kayak becomes/acts purely as a guide, safety boat and first line of rescue.

Jet-Skis: Jet-skis have a poor reputation and are generally banned from swimmer areas; this is primarily because of a lack of competencies of the users and limited manoeuvrability. However, if the competencies of the jet-skiers can be verified they can be useful safety crafts and have the ability to tow floating stretchers. Single man jet-skis have limited value and it is recommended that the ideal jet-ski is a two man craft where the passenger can be a lifeguard who can affect a rescue if required. The jet-ski can then tow any tired or injured swimmer to the shore by use of a harness.

› Safety features of craft

See Appendix E – Boat Equipment

CHANGING

Changing and toilet facilities should be sufficient for the numbers involved and be safe and hygienic. There should be a suitable system of securing clothes and personal belongings, which are left at the risk of the owner.

MEDICAL

First aid and medical cover are essential. It is normal to provide first aid facilities on site whilst medical cover may be provided by an emergency call to a local hospital if located nearby. However, it is preferable to have a qualified doctor on-site.

The Safety Case should highlight a worst-case scenario and recommend a minimum number of competent first aid helpers. As a guide there should be at least one qualified first aider to 40 competitors and where conditions dictate this ratio should be reduced accordingly. It should be noted that RLSS NPLG Lifeguards have first aid competencies and contribute an effective support to the first aider complement. However, with mass participation events such a ratio is clearly unrealistic but it is absolutely essential in such events to have a qualified doctor and emergency services on site.

› Siting of Medical Facilities:

- first aid cover should be in close proximity to the finish area;
- additional first aid cover can be located at suitable points on the course if there is adequate access and the safety case has highlighted a potential risk area;
- it may be advisable to have a rescue boat with trained first aid staff on board. This is particularly likely in the case of a long sea swim which has no shore access apart from the start and finish;
- all first aid stations should have direct communication with the Emergency Services as well as the race control.

› Re-hydrating

The main reason for feeding stations is to maintain the swimmers energy levels and prevent dehydration. This is particularly important in both the lower and higher temperature range. The cold water environment can sap a swimmer's energy quickly and hot water and hot air temperatures can dehydrate a swimmer, neither condition is readily apparent to the swimmer. The role of the swimmer's coach is often vital in ensuring that the swimmer maintains an energy and fluid intake throughout the race. Re-hydration is often a tactical decision at elite level and must be handled by both the swimmer and coach carefully. Many swimmers at the elite level carry gel packs as an alternative or in addition to feeding.

› Facilities in case of Hypothermia and Overheating

Facilities for hypothermia should include adequate towels to dry the athlete, blankets to wrap and space blankets, warm drinks as well as appropriate medical equipment, such as a low reading digital thermometer. For overheating (a potentially very serious medical condition leading to hyperthermia/heat stroke with high morbidity/mortality) there should be facilities to re-hydrate, conductive cooling techniques with ice packs, use of fans/air conditioning and misting the skin with tepid water whilst avoiding vasoconstriction or shivering which will exacerbate the problem.

To prevent overheating is better than treatment and swimmers must be advised of the need to acclimatise, have adequate fluid input/hydration, keep cool with appropriate shelter/hats pre-race, tepid shower after and ensuring the race is not at the hottest part of the day.

COMMUNICATION

General efficient communication around the course between officials and safety staff is essential and is usually achieved by means of radios, although in some circumstances mobile phones are useful. There should be a technical briefing for the officials and staff and a race brief for the swimmers and coaches. These are separate meetings to ensure the information is kept concise and relevant to those attending.

› To Athletes

The timing of the briefings for competitors should be included on the entry form. The competitors briefing should take place in an area that allows the expected number of competitors and swimmers' representatives to gather and hear the information clearly. It should be held with sufficient time allowed for swimmers to complete their pre-race preparations and if necessary to travel to the start position. Any information updates can be passed on at the briefing. If necessary a public address system should be used. If the briefing is in the open air a PA system is essential. The referee will lead the briefing with assistance from the Safety Officer and the Medical Officer.

› Among Safety Staff

The safety staff should be made aware of the course layout, the normal and emergency procedures relating to the course. They should be aware of their duties and how the safe supervision of the swimmers is to be maintained. All the information related to the swimmers will also be given to the safety staff and officials. (See the Officials briefing)

› To Emergency Services

The emergency services that cover the location of the Open Water Swimming event need to be informed well in advance of the day of the nature of the event and the potential hazards and risks involved so that they can plan their response.

› Equipment/Control of Communication & Limits/ Barriers to Communication Language

In international events language may be a barrier. Although the official language of FINA events is English and French the possibility of briefings covering a multiplicity of languages is possible and swimmers and coaches must ensure that all safety aspects of the event are fully understood prior to the start.

› Lack of Competence to Use Equipment

All equipment used at an Open Water Swimming event should only be used by officials who are trained and competent in its use. This is of particular importance with regards to communication equipment and safety, medical and first aid equipment.

› Contingency Plans

The Emergency Action Plan for the event should include contingency procedures in the event of the swim not going according to plan.

RACE FACILITIES – SHORE SIDE

The following are some of the facilities that should be considered in the plan:

- parking for competitors, spectators and officials, suitably sign posted;
- registration area;
- briefing facilities;
- toilet facilities;
- changing facilities;
- secure area to stow clothes and personal belongings (at owner's risk);
- refreshment facilities for competitors, officials and spectators;
- doping control (if required).

DRUG TESTING

The Event Organisers may be informed that a doping control team will be present. The Organisation Team should provide additional personnel to assist and arrange for a suitable secluded area for doping control in accordance with the British Swimming Anti-Doping Rules. **Race technical officials should not be withdrawn from their duties to assist doping control.**

COMMUNICATIONS

Every Open Water event will have technical officials, boats and safety organisation spread out over a considerable area. It is essential that key personnel are able to communicate with each other. The following is a list of key personnel who may require to be provided with communications:

- referee(s);
- assistant referees;
- safety officer;
- course officer
- turn judges;
- race judges in boats;
- race judges on land at remote locations;
- race control;
- announcer;
- chief finish judge;
- chief timekeeper;
- first aid locations.

The Safety Case should identify the level of communication required. Mobile phones can be used, however, they are not ideal as the Safety Officer needs to be able to contact all key people quickly in the case of emergency or worsening conditions and that is not possible if they have to call each one separately. Radio communication is the preferred method. Small personal radios can be hired for the day or purchased for longer term use. Moreover, water proof casings should be obtained. During international events some teams choose their own radios to communicate with other team members. These radios should not interfere with the radio frequency of the event and if they do there may be a requirement to use race event radios or mobile phones only. In the event of teams using their own radios they will need to fit into the communication plan, and it may not be possible to use these radios to communicate with race officials, therefore the operator of the personally/team owned radio must be able to balance the communications to ensure they do not miss important race information.

› Setting up the System

Whatever communication method is chosen there is a need to ensure that it will work efficiently over the whole of the course. Small portable radios will not communicate successfully over a distance greater than 2-3km unless there is a booster station on the network. The site visit carried out by the Safety Officer, Course Officer and Promoter should carry out a survey of the area to identify any radio black spots or range limitations.

› Communications Plan

Prior to the event the Safety Officer will nominate all personnel who are to be using radios. A call sign will be allocated to each of them. A call sign list will be produced

and produce a call for all of them. This will be the communication plan (or complan). The complan will also note any important telephone numbers such as coastguard, hospital or police. Any key personnel who are willing to use their mobile phones can supply the number for inclusion on the complan. These will then ensure a backup facility in case of radio failure. An example of a complan is included with the sample safety case at [Appendix D](#).

› Public Address

Some means of making announcements to swimmers and spectators should be provided. This can also be used for briefings if these are held in the open air. A Public Address system can be hired for this purpose. Race commentary can also be broadcast over the PA system; the commentator should be a knowledgeable person who understands the sport, the swimmers and local personalities. A loud hailer/megaphone may also be used.

FINANCE

› Event Budget

The Event Organisers need a race budget. Without this it is not possible to calculate income, expenditure, committed funds or the balance of the account at the end of the event. A race budget will need to be approved in advance by the relevant governing officers and the financial responsibilities clearly delegated. Possible expenditure items include, but are not limited to:

- hiring the venue;
- hiring temporary competitor facilities (tents for changing, secure areas);
- hiring temporary spectator facilities;
- insurance;
- public address (PA) system;
- first aid helpers;
- boat hire;
- canoe clubs;
- communications network;
- police for traffic or crowd control;
- refreshments;
- swim caps;
- publicity;
- promotional material such as polo shirts for officials.

› **Entry Fees:** The setting of an entry fee is a decision made by the Organising Team.

› **Insurance:** In order for an individual to receive the benefit of ASA insurance (if the event is an ASA event) the individual must be a member of the ASA/SASA/WASA in full or as a temporary member.

Any Promoter staging an event should ensure they have the relevant and appropriate insurance in place for the event prior to running any event.

› **Sponsorship:** Important, as entry fees are unlikely to cover all of the expenses of staging a safe Open Water event.







RACE DAY ORGANISATION

REGISTRATION

The registration procedure should be included on the entry form or in an information pack. All competitors should know the procedure before the day of the event.

An area should be made available for registration that can cope with a number of entries. There should be a clearly defined entrance and exit point with marshals to ensure no undue delay occurs.

The registration officials should:

- check competitor information is correct;
- ensure that the declaration is signed, and includes relevant medical information and ability to swim the distance;
- check the competitor against list of entrants to determine starters;
- issue race numbers;
- issue race hats.

Note: The registration area is also a good place to have a race information board with race details and any last minute changes to the published programme.

EVENT BRIEFING – COMPETITORS

There should be a separate briefing for competitors and their coaches. Where only the coach is present he/she should be responsible for communicating the information to his/her athletes. The timing of the briefings for competitors and coaches should be included on the entry form. The competitors and coaches briefing should take place in an area that allows the expected number of competitors and swimmers' representatives to gather and hear the information clearly. It should be held with sufficient time allowed for swimmers to complete their pre-race

preparations and if necessary to travel to the start position. Any information updates can be passed on at the briefing. If necessary a public address system should be used. If the briefing is in the open air a PA system is essential.

The Referee will lead the briefing with assistance from the Safety Officer and the Medical Officer.

› **The briefing will cover:**

the race: the specific aspects dictated by the venue and the event including;

swimmer identification: the procedure for marking the swimmers with their race numbers should be clearly explained. This should be done after the competitors have changed but before they have applied any grease or sun oil;

acclimatisation: entry into the water before the race to acclimatise the body prior to the event start;

the start: all competitors should know the start procedure. It is worth rehearsing the procedure during the briefing to ensure that the particular requirements of the event are clear;

the course: the Referee should be satisfied that all competitors understand the route they will swim and what they are expected to do at turn points and the finish. Instructions should be simple if possible;

the finish: the layout and the approach to the finish should be explained;

after finishing: the procedure for leaving the finish area and the water. This is especially important if there are retirements from the race, and how they should be dealt with.

› **Environmental conditions:**

weather: current air temperature, sun, wind, forecast for changes throughout the period of the race;

water: temperature, current or tidal flow, waves, likely effects of the wind, water quality, and any health warnings related to the water quality. Forecast for changes throughout the period of the race;

safety: points that all should be aware of including the normal and emergency procedures;

medical: what medical provisions are in place?

(See the Swimmers briefing)

EVENT BRIEFING – OFFICIALS

Where possible, technical officials should be sent information packs explaining their duties (terms of reference) in advance of the event. This information should cover all officials, so that individuals are aware of how their duties interact with others. Copies of the officials' briefing notes should be given to all officials on the day, preferably laminated to make them waterproof.

The Referee will conduct the briefing on the day of the event with assistance from the Safety Officer and the Medical Officer. The briefing will cover the specific duties required by the venue and the event. Safety aspects that all should be aware of include the normal operating procedures and the emergency procedures plus the medical and other safety provisions that are in place. All technical officials and boat crews, including canoe lifeguards should be included in this briefing.

An example of a briefing format for both swimmers and officials is included in the Sample Safety Case at [Appendix D](#)

CLERKS OF THE COURSE

The clerks of the course are responsible for:

- marking the competitor's number prominently in waterproof ink on the shoulders, upper arms and backs of hands;
- checking that fingernails and toenails are clipped short;
- checking that no jewellery or watches are worn;
- calling the competitors to the water at the start - this is normally done in race number order - but competitors enter the water together;
- handing the competitors over to the Referee with a list of any registered swimmers who have not started;
- managing the welfare of swimmers who retire from the race until their coach or representative can take over;
- managing the welfare of all competitors at the finish until their coach or representative can take over.

STARTER

The starter should be aware of any constraints imposed by the start area and the precise procedure he will be following. This should include detail of how the start rope is to be deployed and where he will be located, ashore, or on the water. He/she should be aware of the respective duties of the clerk of the course and the referee with regard to the start.

TURN JUDGES

Turn judges will be allocated to a turn. They will be given written instructions regarding their duties, which will include:

- the exact location of the turn position;
- what time they should be in position and how they will be transported to that position;
- radio call sign and instruction on how to use the radio and the radio call procedures in use;
- recording swimmers as they pass the turn point, if possible this should be positive;
- identification of the swimmer by race number, where that is not possible they must be able to give an accurate head count;
- noting any infringement of the turn procedures on a record sheet;
- reporting infringements to the referee by radio;
- acting as race judge for the area of the course in their view;
- acting as a safety observer;
- handing the completed record sheets to the chief judge on completion of the event.

RACE JUDGES

Race judges will be allocated an area to patrol. They will be given written instructions regarding their duties, which will include:

- the exact location and range of their patrol area;
- what time they should be in position and how they will be transported to that position;
- radio call sign and instruction on how to use the radio and the radio call procedures in use;
- they should respond to specific directions from the referee;
- if allocated to a shore position – patrolling their designated area of beach or bank with a clear view of the swimmers;
- if allocated to a boat directing their boat to patrol the area allocated;

- they should observe swimmers in their sight at all times for compliance with the laws of racing;
- reporting any infringements of race laws or safety requirements to the referee immediately when they occur, preferably by radio;
- acting as a safety observer.
- where possible record competitor's number against their time to act as reference points for the Chief Judge;
- hand the completed time sheet to the chief timekeeper;
- keep their timers running until instructed by the chief timekeeper after all the competitors have finished.

CHIEF JUDGE

A chief judge will be appointed to:

- control the race judges, turn judges and finish judges;
- accept the pre-race reports from turn judges and race judges and report their readiness to the assistant referee;
- receive the turn judges report sheets on completion of the race;
- with the finish judges, place all competitors;
- decide the final placings;
- append the agreed times to each place;
- report to the Referee with the final placings and a report of any places he is unable to resolve.

FINISH JUDGES

A team of three judges, including the Chief Judge, will be appointed for each event. Each team will be allocated to their event. It may be necessary to have more than one team of finish judges if there are several events being conducted in one race, for example, the National Age Groups which combine 2000m, 1500m and 1000m events. Finish judges will:

- observe every swimmer in his allocated race as they finish and keep a record of the;
- placings by recording their race number;
- ensure that the finish count tallies with the other race judge at regular intervals in order that any discrepancies can be spotted and isolated early;
- on completion of the race passing his completed finish list to the Chief Judge.

TIMEKEEPERS

A chief timekeeper and at least two timekeepers will be appointed for each event. Timekeepers will be briefed to:

- be present at the starting point;
- start their timer on the start signal;
- ensure they have means of travelling to the finish area if this is a separate location to the start;
- record the finishing time of all competitors in their event using the split facility on their timer;







SAFETY CASE

A Safety Case will be a record of all relevant planning and preparation tasks and will specifically include the risk register complete with actions taken to mitigate identified risks. It will also include procedures to be followed in the event of an emergency. The document will be developed incrementally as planning progresses and authorisations are received. Typically, the Safety Case will cover the following topics:

- Planning:
 - organisation team details including contacts;
 - authorisations;
 - relevant local departments and emergency services;
 - results of a site survey;
 - risk assessment.
- Normal Operating Procedures;
 - promoter's conditions;
 - event site layout and procedures;
 - course details;
 - briefing notes for swimmers;
 - terms of reference, (role), for all officials;
 - briefing notes for officials;
 - list of safety boats to be used;
 - operating instructions for safety boats.
- Emergency Operating Procedures;
 - emergency roles for officials;
 - evacuation procedures;
 - emergency communications;
 - emergency medical procedures.

- List of Competitors
- List of Technical Officials and Other Helpers
- Communication Channels

It is normal for the authorising body to request a draft Safety Case at the time of granting permission for event planning to proceed. The Safety Case will be complete once the competition entries are closed and a final list of competitors in each event is known. The local authority may request a copy of this finalised Safety Case before giving the final go ahead on the day.

Any late changes, which affect the course or other safety aspects, will be briefed on the day of the event to the swimmers, swimmers' representatives and technical officials. Where possible printed amendments will be posted at the event headquarters and copies given to each safety boat.

A typical Safety Case is included at [Appendix D](#) as an example.





APPENDIX A: THE INCIDENT PREVENTION STRATEGY – WHY PEOPLE DROWN?

ACCIDENTAL DROWNING 2005 & 2009 (STATISTICS PROVIDED BY ROSPA AND WATER INCIDENT DATABASE WAID)

THE DROWNING PROBLEM

Drowning is a final and deadly condition. There is little chance for those that get into difficulties on or in water, especially water that is deep or fast flowing, and cold. Most of those who cannot swim will drown in a few seconds. Sadly those that can swim also drown close to the bank within a very short period of time after entering the water.

The number of accidental drowning deaths in the UK for 2005 is suspected to be 435. The figures peaked in June when 64 people drowned. A significant factor in the June fatalities was the flooding that occurred throughout England. Statistics for 2009 are similar showing that 405 people had a cause of death classified as drowning 48 of which were classed as swimming at the time and nearly a third of these casualties were in a river. August saw the highest incident level and the weekend being the most common day of occurrence.

STATISTICS

- based on a total UK population of 60.2 million, the suspected accidental drowning rate per 100,000 of population is 0.72
- deaths amongst the under 15's remained fairly static at 39 (previous figure for the last three years has been 40) and of this figure the total of 16 under 5's was only one less than the previous year
- accidental deaths are highest in the age range 36-60
- there are roughly 80 UK citizens that drown abroad every year (475 drownings between 2000 and 2005)

MALES AGED 15-45

- 31% of all accidental drowning
- make up almost 40% of inland water site drownings
- 137 died due to suspected accidental drowning
- 66% died at inland water sites
- under 19's make up the largest group drowning each year whilst swimming, with 13-18 year olds being the highest group
- deaths in males are three times higher than females

LOCATION (ALL AGES)

Inland	234
Coastal Zone	130
Residential Location	38
Sea	26
Swimming Pool	7

SUB-LOCATION

Bath	25	6%	River, stream, etc	137	31%	Inshore	76	17%
Garden Pond	6	1%	Lake	50	11%	Other	25	6%
Other	3	0.7%	Canal	44	10%	Dock/Harbour	18	4%
Swimming Pool	2	0.2%	Other	3	0.7%	Cliff	11	3%
Floods	2	0.5%	Reservoirs (included in lakes above)	10	2%			

BY ACTIVITIES/BEHAVIOUR

	At Sea	Coast/Shore/Beach	Harbour/Dock/Marina/Port	Drain/Well/Pit	River	Canal/Aqueduct	Lake/Lock/Lough	Dry Ground	Pond	Pool (Swimming)	Quarry	Reservoir	Bath (includes jacuzzi's, hot-tubs)	Stream/Ditch/Burn	Water Container	Total	Suicide Suspected
Angling	7	6	2		5		5					2				27	
Bath													19			19	
Climbing/Cliff		4						1	1		1					7	2
Commercial	11	2	2		1											16	
Flooding							5									5	
Jumping/diving in		3	2		5	1	2									13	65
Manually powered boats	2	2	1		7		3						1			15	2
Motor vehicle		4	1	2	4	1		1	3							17	2
Motorboating	2	1	2			4	3									12	
Person on ice												1		4		1	
Person/object in water, person of uncertain status	4	11	4	1	39	14	11	2	3			1				94	82
Person water craft					2											2	
Sailing	4	1	2		1		1									9	
Sub aqua diver	14	2					3				1					20	
Surfing	1	3														4	
Swimming	8	8	1		15		3		2	5	3	3				48	1
Walking/running	2	21	4	2	24	8	1	2	5		2	4		2	1	78	1
Waterside activity/in water play	1	3	3		3				2							12	
Windsurfing/Kitesurfing	1	4			1											6	
Total	57	75	24	5	107	28	32	11	16	5	7	11	19	7	1	405	
Suicide suspected	5	59	7		63	5	5	5	2	1		2		1			155

Notes

A: Count includes deaths by accidental and natural causes totalling 405 cases. **B:** In addition there are 155 cases where suicide is suspected or confirmed. These are shown in italics in the last column, and have been excluded from subsequent analysis. **C:** Excludes 132 incidents where information is currently too unclear to form an opinion on the intent of the deceased, their activity when the incident occurred, or whether there was criminal intent involved. **D:** The 11 cases categorised under dry ground referred to locations which are not normally watercourses such as flooded areas.

A PREVENTATIVE STRATEGY – THE DROWNING CHAIN

The most positive way of countering drowning is to prevent entry into the water in the first place. It is essential to counter one of the factors which contributes to drowning as soon as possible, and certainly before the stage of possible rescue is reached. These factors form links on what we refer to as 'The Drowning Chain', i.e. the possible combination of events that lead to drowning. Any plan to prevent drowning must aim to break one of these links and so avoid the ultimate fate.

THE LINKS IN THE CHAIN ARE:

- 1. Ignorance, disregard or misjudgement of danger**
An intervention is most successful if it breaks this first link in the drowning chain. Through education comes recognition and therefore avoidance of danger. The danger is then recognised, respected and avoided.
- 2. Unrestricted access to hazards**
The counter to the second link in the drowning chain is to deny access to the hazard. This may be done by warning of danger or by otherwise preventing potential casualties from entering into danger, for example, fencing.
- 3. Absence of adequate supervision**
Absence of adequate supervision can only be countered by more competent training and application. Those who guard the lives of others can only ever be totally vigilant.
- 4. Inability to save yourself, or be rescued**
If the drowning chain is still intact, and the victim has not been 'saved' while still out of the hazard, only the fourth and final link remains! Now only self-rescue, or rescue by another person, can avoid the worst consequences.

Although rescue is a poor option in any preventative plan, this does not mean that it should not be considered and encouraged where appropriate. Other options should have greater priority because they have more chance of success.

It can be seen that Open Water Competitive Events break the Drowning Chain effectively by preventing unrestricted access, providing adequate supervision and event management and assessing the competitor's ability.





APPENDIX B:

NATIONAL WATER SAFETY SIGNS

There are three main types of water safety signs around open water. Each one has its own meaning, but all of them work to the same system.

In addition to the water safety signs, you will also find **information** signs telling you where the toilets are or where you can get first aid. They will also tell you where the public rescue equipment is held.

Signs that warn you of danger are always:

- Triangle shaped
- Yellow background, with black symbols
- They are placed to help you spot a hazard that is not always obvious

They mean that you should be aware of something.

Signs that mean you should not do something are always:

- A red ring shape, with a line running through
- White background, red line and black symbols or shapes
- They inform you of things you are not supposed to do

These signs tell you that it would be dangerous to do something, or go in that place.

Signs that mean you should do something are always:

- Blue and circle shaped
- White symbols or shapes
- They inform you of things you need to do

These signs tell you that you should do something to be safe.

These signs should never be ignored unless an open water competition has secured the removal of the hazard i.e. the removal of surface craft from the designated competition area.

National Water Safety Signs

Prohibition



Prohibition Signs tell you not to do something.
Black and Red on White.

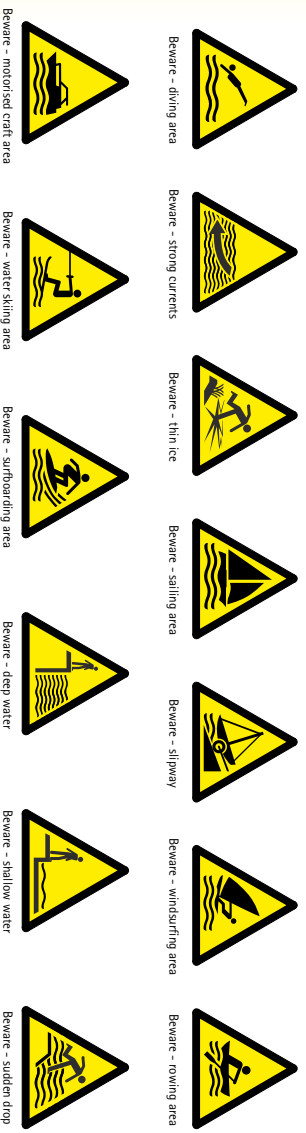


Prohibition

Hazard



Hazard Signs warn of potential hazards.
Black on Yellow.

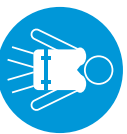


Hazard

Mandatory



Mandatory Signs give instructions to do something.
White on Blue.



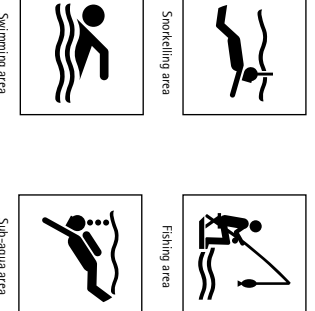
Mandatory action -
life jackets to be worn

Mandatory

Information



These are not safety Signs but give general information.
Black on White.



Information



Key dates for the introduction of the revised Directive are:

- **2011:** The Environment Agency will publish a profile for each bathing water in England and Wales
- **2012:** Signs must be in place at all bathing waters by the beginning of the bathing season. The Environment Agency will begin monitoring using the parameters of the revised Directive
- **2014:** Final bathing water report using the standards of the current Directive
- **2015:** First set of classifications using the new parameters will be published, based on the data set commenced in 2012
- **2016:** New classifications will appear on the signs using symbols that are being prepared by the EC

LEGISLATION AND ADMINISTRATION

The Bathing Water Directives are administered in England by Defra and in the rest of the UK by the relevant Devolved Administration. Bathing water enquiries in Scotland, Wales and Northern Ireland should be directed to the Scottish Executive, Welsh Assembly Government and Department of Environment Northern Ireland respectively.

The Directive is implemented in the UK by the following regulatory authorities:

- **England and Wales:** The Environment Agency
- **Scotland:** Scottish Environment Protection Agency
- **Northern Ireland:** Northern Ireland Environment Agency

Also forming part of the transposing legislation is the **Bathing Waters (England) Notice 2008**, issued by the Secretary of State for the Environment, Food and Rural Affairs on 26 September 2008. It revokes the notices given under section 83(1) of the Water Resources Act 1991 and under paragraph 3(1)(a) of Schedule 1 to the Bathing Waters (Classification) Regulations 1991 on 5 May 1992, 14 February 1997 and 13 June 2003.

BATHING WATER PROFILES

The revised Directive requires Member States to establish a profile for every bathing water based on the physical, geographical and hydrological characteristics of the bathing water and assessing the risks of pollution. The profiles will provide key information for inclusion in the general description of the bathing water on the signs. The Environment Agency will complete its work on profiles of bathing waters in England and Wales by March 2011.

The European Commission has produced an explanatory document, **Bathing Water Profiles: Best Practice and Guidance** (PDF, Europa website)
http://ec.europa.eu/environment/water/water-bathing/pdf/profiles_dec_2009.pdf

BATHING WATERS IN THE UK

During the 2010 bathing season 413 bathing waters were monitored in England, 80 in Wales, 82 in Scotland and 24 in Northern Ireland, making a total of 599 bathing waters across the UK. Of these sites 587 are coastal or estuarine waters and 12 are inland freshwater sites.

DESIGNATION OF NEW BATHING WATERS IN ENGLAND

The revised Directive aims to keep bathers well informed about water quality and encourages the participation of the public in its implementation, particularly in reviewing the list of bathing waters so that it includes all beaches and inland waters that are used by large numbers of bathers. A "large number" is regarded as a number considered to be large in relation to past trends or to infrastructure and facilities provided to promote bathing.

Information about how to apply for a beach or inland freshwater site to be identified as bathing water, including the contact details for the Bathing Water team at Defra.

The current list of bathing waters in England can be found here:

- **Bathing waters in England in 2010** (PDF, 40 KB)
<http://archive.defra.gov.uk/environment/quality/waterquality/bathing/documents/list-of-bathing-waters-2010.pdf>

BATHING WATER MONITORING RESULTS IN ENGLAND AND THE UK 2010

The bathing water monitoring results for the 2010 season in England and the UK were announced on the 15 November 2010:

- **2010 results summary tables** (PDF 189 KB)
<http://archive.defra.gov.uk/environment/quality/water/waterquality/bathing/documents/bathing-water-results2010.pdf>
- **Information bulletin** (15 November 2010)
<http://www.defra.gov.uk/news/2010/11/15/bathing-news/>

A detailed summary report of mandatory compliance results for UK bathing waters for all parameters under the Directive is available here:

- **2010 summary report for UK bathing water monitoring results** (PDF 370KB)
http://ec.europa.eu/environment/water/water-bathing/pdf/profiles_dec_2009.pdf

MANDATORY STANDARDS

Meeting the mandatory water quality standards of the Bathing Water Directive (76/160/EEC) is the minimum legal requirement. Mandatory standards are given for 10 parameters: total coliforms, faecal coliforms, salmonella, enteroviruses, pH, colour, mineral oils, surface active substances (detergents), phenols and transparency. The Directive also sets the minimum frequency at which bathing waters should be sampled.

Cases of non-compliance with the physio-chemical parameters are extremely rare so compliance in the UK each year is normally determined by the extent of pollution by total and faecal coliform bacteria.

To comply with these standards, bathing waters must not exceed values of 10,000 total coliforms per 100ml and 2000 faecal coliforms per 100ml in 95% of samples.

In 2010, 97.6% of bathing waters in England complied with these microbiological standards, with 10 of the 413 waters failing to meet the minimum standards of the Directive.

The table below shows percentage compliance with the mandatory standards for total and faecal coliforms in England only and in the UK over the last decade.

YEAR	ENGLAND % COMPLIANCE	UK % COMPLIANCE
2001	97.8	95.3
2002	98.5	97.8
2003	98.8	98.4
2004	98.3	97.7
2005	98.8	98.4
2006	99.5	99.5
2007	97.8	96.5
2008	96.1	95.8
2009	98.3	97.7
2010	97.6	97.3

GUIDELINE STANDARDS

The Bathing Water Directive also sets more stringent guideline microbiological standards that Member States must endeavour to observe.

To comply with the guideline standards, bathing waters must not exceed values of 500 total coliforms per 100ml and 100 faecal coliforms per 100ml in 80% of water quality samples, and 100 faecal streptococci per 100ml in 90% of samples taken.

In 2010, 72.5% of all bathing waters in England met this tighter standard. This is the guideline standard that constitutes the water quality criterion of the international Blue Flag award scheme.

The table below shows percentage compliance with the highest guideline standards for total coliforms, faecal coliforms, and faecal streptococci in England only and in the UK over the last decade.

UK GUIDELINE COMPLIANCE

YEAR	ENGLAND % COMPLIANCE	UK % COMPLIANCE
2001	69.2	65.7
2002	76.4	73.8
2003	91.8	81.9
2004	78.5	78.3
2005	83.8	82.5
2006	79.7	79.2
2007	78.3	75.6
2008	70.5	68.3
2009	80.2	79.3
2010	85.5	82.3

See the Environment Agency website for more detailed information on bathing water quality results in England and Wales, including compliance results for individual bathing waters.

UK COMPLIANCE COMPARED WITH OTHER EU MEMBER STATES

The UK's bathing water results are reported to the European Commission each year to inform its annual report.

The report indicates that the UK's compliance rate with mandatory standards was slightly above the EC average but compliance with the more stringent guideline standards remained below average. The report for the 2010 bathing season will be published in May or June 2011.

The EU bathing water report assesses guideline compliance using the same standards as the UK guideline for total and faecal coliforms but does not take the parameter for faecal streptococci into account. The table below shows percentage compliance with the EC guideline standard for England only and for the UK over the last 10 years.

EC GUIDELINE COMPLIANCE

YEAR	ENGLAND % COMPLIANCE	UK % COMPLIANCE
2001	69.2	65.7
2002	76.4	73.8
2003	81.8	81.9
2004	78.5	78.3
2005	83.8	82.5
2006	79.7	79.2
2007	78.3	75.6
2008	70.5	68.3
2009	80.2	79.3
2010	85.5	82.3

PROJECTED CLASSIFICATIONS UNDER DIRECTIVE 2006/7/EC

The Environment Agency has used the new standards and four years of water quality monitoring data (2007 to 2010) to assess the compliance rate that might be expected in England and Wales under the revised Bathing Water Directive.

It is important to appreciate that these assessed results assume that no further action is taken to improve water quality. The projected classifications using current data for each bathing water in England and Wales are available:

- **Projected classifications at bathing waters in England and Wales under the revised Bathing Water Directive** (PDF 200 KB) - October 2010
<http://archive.defra.gov.uk/environment/quality/water/waterquality/bathing/documents/projected-rbwd-classifications.pdf>

The assessment for England is based on 407 bathing waters because it excludes those that have been designated since 2007 or have been closed to samplers and the public during the relevant period. It shows that 88% of bathing waters would meet at least the "sufficient" classification, compared with 97.6% that met mandatory standards in 2010. 48 bathing waters are predicted to be classified as "poor".

Number of bathing waters in England assessed to be in each classification category under the revised Bathing Water Directive (based on current water quality results):

CLASSIFICATION	NO. OF BATHING WATERS ASSESSED IN ENGLAND	% OF BATHING WATERS ASSESSED IN ENGLAND1
EXCELLENT	209	51
GOOD	99	24
SUFFICIENT	51	13
POOR	48	12
TOTAL	407	100

Over the coming years Defra and the Environment Agency will be working closely with stakeholders to determine the most appropriate course of action to be taken at bathing waters, particularly those at risk of failing the new standards.

Open Water Competition Organisers must research the water quality of the designated competition area as advised by Defra.



A photograph of two swimmers in the water. The swimmer in the foreground is wearing a white swim cap and goggles, with their mouth open as if shouting or breathing. The swimmer behind them is wearing a blue swim cap and goggles. The water is splashing around them. In the background, a large orange inflatable ring is visible.

APPENDIX D:

SAMPLE SAFETY CASE

EVENT TITLE

DATE & VENUE

SAMPLE SAFETY CASE

REPORT PREPARED BY

DATE OF REPORT:

INTRODUCTION

This sample case gives examples of the procedures and hazards that should be considered when planning an event. It is not exhaustive and cannot be used as it stands. In all cases a proper risk assessment and hazard analysis must be carried out for the venue, which is to be used for the event.

A copy of the Safety Case format can be obtained from the Secretary of the Swimming Technical Committee or downloaded from the Open Water section of the Swimming Website.

A1. BACKGROUND

[A few paragraphs giving the background to the event, when it was inaugurated and what distances are swum etc].

A2. ORGANISATION

A2.1. NATIONAL/DISTRICT/COUNTY GOVERNING BODY

Contact details:

A2.2. LOCAL AUTHORITY

Contact details:

A2.3. OPEN WATER SWIMMING COMMITTEE

TITLE	NAME	ADDRESS	TELEPHONE NUMBERS	EMAIL
SECRETARY & MEET DIRECTOR				
CHAIRMAN				
SAFETY OFFICER				
LOCAL CO-ORDINATOR				

A2.4. EMERGENCY SERVICES

Liaison has been established with the following local services:

- ambulance service;
- hospital A&E dept;
- fire service;
- police;
- coastguard

All need to be told of the date and time of the event, the length of the course, the estimated number of competitors and the age range of competitors. On the day of the event the information should be confirmed with a nominated contact. Some of these organisations may request a copy of the safety case including the risk assessment.

A2.5. SAFETY ORGANISATION

The Safety Officer is responsible for all aspects of the safety organisation. The final assessment of the conditions and safety organisation on the day of the event will be made by the Safety Officer who will recommend to the Referee that the event shall go ahead if he considers that it is safe to do so. The Referee can decide to overrule a positive recommendation from the Safety Officer, however, a negative recommendation from the Safety Officer i.e. the Event cannot go ahead, cannot be overruled. *[Extend this paragraph to include the complete safety organisation in place for your event]*

A3. NORMAL OPERATING PROCEDURES

A3.1. BOATS

The number of boats and their roles should be defined here. In this example the numbers in italics should be adjusted according to the requirements of your own risk assessment.

- three rescue boats under the direction of the Safety Officer;
- referee's boat;

- safety officer's boat;
- two race judges' boats;
- two anchored turn boats with two turn judges aboard each (one boat per turn);
- one anchored finish boat with finish judges aboard;
- six to ten canoes crewed by qualified BCU canoe lifeguards.

Each safety boat is to carry the designated list of safety equipment as detailed in equipment matrix. All boats (except the canoes) will be in radio contact with the referees and safety officer.

A3.2. RACE OFFICIALS

The safety officer will be responsible for appointing sufficient officials to enable the event to be held safely. A briefing pack containing details of duties and all relevant event and safety information will be provided for each official prior to the start of the event. A full list of Official's appointments is included with this safety case.

A3.3. RADIOS

The Safety Officer is responsible for providing radios to those officials designated. He will allocate call signs and will brief all users on correct radio procedure. A communication plan is included with the information pack for all appointed officials.

In the event of an emergency the Safety Officer will invoke a procedure to minimise radio traffic. The message that will be used to initiate this procedure is "All stations – Minimise". Following this call all normal radio calls will cease and only calls that are related to managing the emergency will be allowed. The safety officer will be in charge. When the emergency is resolved normal radio procedures will be resumed following the message "All stations – cease minimise".

A3.4. MEDICAL COVER

The local St. John's Ambulance or the Red Cross will provide an Ambulance, which is to be situated close to the First Aid tent with ready access to the main road. The local St. John's Ambulance or the Red Cross will provide medical cover.

A backup to the St John's Ambulance or Red Cross will be the Ambulance Service on call via the normal 999 procedure. The local hospital A&E unit will have been informed of the date and time of the event during the planning.

In addition there will be a qualified Medical Doctor on site.

A.3.5 EVENT HEADQUARTERS

The District Council has granted permission to hold the event at and to position a race administration area close to the old landing stage" (OS Grid TA689803). The administration area will include:

- a Race Control caravan incorporating the public address system
- an ambulance with ready access to the road
- the erection on race day of up to five tents on the shingle close to the promenade

These tents will be used as follows :

When writing your Emergency Operating Procedures you can use these notes as guidelines, but they must be tailored to your own venue and circumstances.

A4. EMERGENCY OPERATING PROCEDURES

The following events are foreseen as emergencies; action is to be taken as indicated.

A4.1. SWIMMER IN DANGER OF DROWNING

The nearest boat is to go to the aid of the swimmers;

- a radio call is to be made immediately informing the Referee and the Safety officer of the situation;
- a fast rescue boat is to be called in to get the swimmer to medical assistance quickly;
- the safety officer will decide whether it is safe for other swimmers to continue.

A4.2. WARNING OF IMMINENT ELECTRICAL STORM

The safety officer halts race immediately by making a radio call;

- boat crews move to inform swimmers advising them to leave the water or taking them aboard their boat as appropriate;
- all actions are to be carefully considered, hasty actions lead to accidents;
- once the water is clear of swimmers, the boats are to return to the moorings and the crew to disembark as soon as possible;
- all personnel are to get under cover as soon as possible.

A4.3. OFFICIAL OR HELPER IN NEED OF TREATMENT

- ensure the person receives first aid as quickly as possible;
- assess the seriousness of the injury and whether local medical assistance is sufficient;
- make arrangements for transport to the hospital if required. Use local transport if appropriate. If it is an emergency call the emergency services and request an ambulance or coastguard helicopter depending on the urgency;
- always follow up to find out condition of the person once they have left your jurisdiction;
- write a report in the incident log.

A4.4. SAFETY OR RESCUE BOAT ACCIDENT

- call the dedicated rescue boats to the scene
- if the accident is serious and is beyond the first aid capabilities of the rescue boats call the coastguard or the local emergency services as appropriate
- the first priority must be to any humans involved;
- write a report for the incident log

A4.5. INCREASE IN WIND OR SEA STATE

- the safety officer will call for reports from his officials around the course in order to determine whether the change is affecting all areas;
- based on these reports and his judgement the safety officer will assess the conditions and make a decision on whether to continue with the event, shorten the course or alter the course

THE RISK ASSESSMENT

The findings and actions taken to reduce and manage risk identified in this risk assessment should be reviewed after the event so that reasonable adjustments can be made to future events. This Risk Assessment should be forwarded to the ASA Events team at the SportPark, Loughborough ([see Appendix N](#))

	CONSIDERATIONS	HAZARD IDENTIFIED AND WHO IS AT RISK I.E. SWIMMER, OFFICIAL ETC	RISK FACTOR HIGH/MEDIUM/LOW	ACTION TO REDUCE AND/OR MANAGE RISK
VENUE				
	Car parking Access for emergency vehicles Obstructions getting onto and off the site Access to water			
ENVIRONMENT				
AIR TEMPERATURE	Average for time of year Predicted maximum and minimum Expected change during event timescale			
	Average for time of year Predicted maximum and minimum Expected change during event timescale			
	High water time Low water time Tidal range Direction and strength of tidal flows throughout the time of the event			
WIND CONDITIONS	Prevailing direction Expected wind strengths			
WEATHER	Expected weather for time of year Possibility of electric storm			
WATER	Type of water (river, lake, sea)			
	Depths throughout the course Change in depth due to tides			
	Risk of Jellyfish in the area Hazard from sea or water birds			
	Effect of wind on the water Waves, Swell, Breakers			
	Underwater obstacles			
	Water and sewage Outlets Water intakes			
THE COURSE				

REGISTRATION AREA	Is registration area of sufficient size to accommodate the swimmers?			
ASSEMBLY AREA	Exposure to the elements Conditions underfoot			
START	Access to the water Conditions underfoot			
THE COURSE AREA	Distance between marker buoy Visibility of turns Tides or currents around turns Effect of tides on each leg of the course Location of the finish Visibility of the finish			
FINISH	Exit from the water Proximity of swimmers equipment and coaches/ parents			
EXIT	Is the water exit area sufficiently large enough to prevent congestion?			
SAFETY SUPPORT SYSTEMS				
COMMUNICATIONS	Radio contact with RNLI Coastguard Local Hospital St John's Ambulance or Red Cross			
	Radio Coverage over complete course			
EMERGENCY SERVICES	Ease of contact Ease of access to site Possible delay points on route: Works entrance/exit points) Schools Road works Normal traffic situation. Rush hour times Alternative routes			
BOATS	throughout event Qualified boat operators Propeller guards fitted Safety equipment available			
	Means of landing retired swimmers: Pontoon Jetty Shelving beach			
LIFEGUARDS	Are they competent?			
	Are numbers sufficient?			

	Have they been briefed?			
	Are they supervised?			
SWIMMERS				
	Registered			
	Numbered			
	Record of individual swimmers support systems?			
	Medical disclosure?			
	Competency disclosure?			
	Disclaimer			
SPECTATORS				
	Separated from swimmers?			
	Safe viewing area?			
	Numbers likely to attend?			
	Is steward control required?			
	Are separate facilities required?			
LEGISLATIVE REQUIREMENTS				
FIRE SAFETY	<p>Is staff trained in fire prevention and escape procedures?</p> <p>Are storage areas neat & tidy?</p> <p>Are smoke free regulations enforced?</p> <p>Is all equipment installed and used as per manufacturer's instructions?</p> <p>Has adequate means of escape been considered in the event of a fire?</p>			
EMERGENCY PLANNING	<p>Has an emergency plan been created?</p> <p>Does all staff know their roles in an evacuation?</p> <p>Have all likely emergency scenarios been considered?</p> <p>Fire-Bomb-Public Disorder-Rescues-Assault on officials-Power failure.</p>			
SAFETY SIGNS	<p>Do safety signs comply with the regulations?</p> <p>Are they clear & accurate?</p>			
FIRST AID	<p>Special requirements (i.e. breathing apparatus, resuscitation equipment, spinal board etc).</p> <p>Competencies?</p> <p>Adequate first aiders?</p> <p>1st Aid reporting procedures.</p>			

YOUNG PERSONS AT WORK	Are young persons' adequately supervised by adults?			
NEW & PREGNANT MOTHERS	Have all pregnant officials, worked and swimmers been individually risk assessed as safe to carry out the tasks allotted or the swim?			
LONE WORKERS	Is geographically remote staff adequately supervised?			
MANUAL HANDLING	Is all equipment safely handled and weights suitable so as to not cause harm when moved?			
WORK EQUIPMENT	Is all equipment suitable for purpose? Is all equipment in good order and safe to use? Is the electrical power supply suitable? Is all portable electrical equipment installed correctly and with the required 'trip out' fittings for use near water? Is all electrical cabling and wire secured safely to ensure they are not a trip hazard?			
ASBESTOS	Is there any asbestos on site? Is there an Asbestos Plan? Is the site safe to use?			
WORKING AT HEIGHT	Are all ladders, podiums etc that involve working at height suitable for purpose and in good condition?			
DOMESTIC WATER	Is any domestic water supply suitable to drink? Is it suitably signed?			

COMPETITORS LISTS

5KM MEN'S CHAMPIONSHIPS

NO.	NAME	DOB	CLUB
1			
2			
3			
4			
5			
6			
7			
8			
9			

5KM WOMEN'S CHAMPIONSHIPS

NO.	NAME	DOB	CLUB
1			
2			
3			
4			
5			
6			
7			
8			
9			

BRIEFINGS

› Swimmers Briefing – Sample

A **roll call** of all swimmers will be taken ensuring that all know their allocated race number.

Race numbers will be marked on by the clerks of the course on the shoulders and backs of the hands in large clearly read figures. Numbered hats may also be provided. You are permitted to wear one swimming costume, which may be of the body suit type, two swimming hats can be worn but the numbered hat must be on the outside. No rings, watches or jewellery of any kind may be worn. Fingernails and toenails must be trimmed short and will be inspected by the clerks of the course.

The **course** will be explained, with visual aids:

- length of course;
- how many laps for the particular race distance;
- direction of race (e.g. clockwise or anti-clockwise);
- position of the start and the finish;
- depth of water in front of a start pontoon if a diving start is permitted;

- position and marking of turn boats and turn marker buoys;
- position of course marker buoys;
- position and marking of finish boat and finish funnel;
- the number of officials' boats, safety boats and canoes;
- water temperature;
- water quality;
- air temperature.

Be aware of the power of the sun and ensure sufficient waterproof sunscreen is applied to shoulders, backs and legs before entering the water, (but after the race numbers have been marked on).

The start procedure:

The clerks of the course will give a countdown of time to the start and at 5 minutes to go will muster competitors close to the start. A further roll call will be taken and you will be asked to either enter the water as your name and number is called or take up position on a start pontoon.

You will start in the water lined up in front of the start line or on the pontoon. Follow the directions of the referee and the starter. The referee may blow a whistle to help martial you into the correct starting position and when satisfied he

will raise a flag and point it towards the starter. The starter will then raise his flag and when he is satisfied that the swimmers are correctly positioned he will lower the flag and simultaneously sound an air horn.

After completing the required number of laps swim into the finish funnel and touch the finish boat where the indicated.

If you wish to retire from the race then turnover onto your back, wave an arm in the air and wait for a rescue boat to assist. You may swim to the shore to retire, but you must ensure that the nearest judge on the beach knows of your retirement so that the referee is informed without delay.

A head count will be maintained at all times by the referees, turn judges, course officer and safety officer.

The **cut-off time** will be 30 minutes after the first swimmer comes home in that event. After the cut off time the referee will decide whether the surviving swimmers are to be instructed to leave the water.

In the event of inclement weather the race may be stopped or shortened by the referee as advised by the safety officer.

If a thunderstorm is forecast to be imminent the safety officer will advise the referee to clear the water of all swimmers and officials. Swimmers must not leave the designated safety area, (race headquarters) until instructed by the Safety Officer.

First Aid facilities are available in a tent staffed by St. John Ambulance. There will also be a medical doctor in attendance.

› Officials Briefing – Sample

All race officials will have received a briefing pack informing them of what duties they will perform and what the roles of the other officials will be. This pack will include a description and diagram of the course, normal and emergency operating procedures and instructions on what clothing and equipment is required.

On the day the briefing will consist of confirmation of duties and expectations, in addition a final entry list will be handed out and any changes to written instructions that were in the briefing.

Radios with a call sign card will be distributed to the nominated officials. A listening watch must be maintained during the event.

Where appropriate to your duty, maintain a head count of swimmers in the water.

If a swimmer retires it is imperative that the referees and safety officer are notified immediately by radio, quoting the swimmer's race number and position on the beach or in which boat he/she is being brought ashore. To prevent further exposure, ensure the swimmer is covered by a blanket and an orange survival bag.

Beware of the possibility of sunburn and use sunscreen.

Be aware of the location of the First Aid tent.

Observe the radio procedures detailed on the reverse of the call sign list.

In the event of an emergency the safety officer will order you to minimise radio calls, only radio traffic essential to the emergency will be allowed. Maintain a listening watch in order to respond to any instructions.

The safety officer will brief boat crews, including any canoe lifeguards, on the course, safety procedures and radio operation/call signs and draw their attention to the safety boat instructions included with their briefing packs. **Lifejackets will be worn when embarked in a boat.**

The safety officer will also brief all those with radios on the correct way to use the equipment and the correct call procedures. Radios are an item of safety equipment and must not be used for race commentary or idle chatter.

In the event of **inclement weather** the race may be stopped or shortened. If a thunderstorm and/or lightning are imminent the safety officer will advise the referee to clear the water of all swimmers and officials. All officials will assist in clearing the water as detailed in the emergency operating procedures.

OFFICIALS APPOINTMENTS

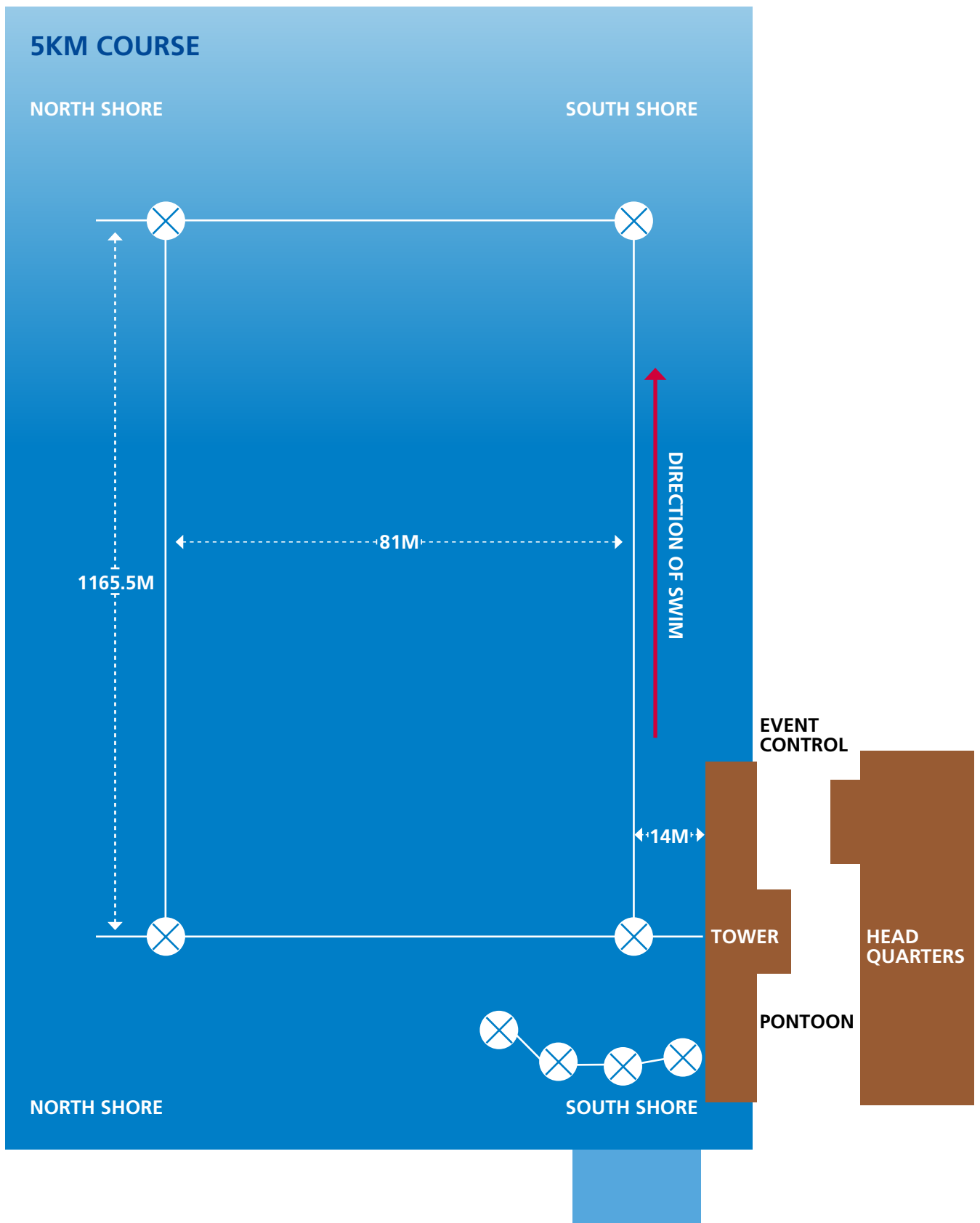
ROLE	NAME	RADIO
MEET DIRECTOR		
LEAD REFEREE		
ASSISTANT REFEREE 1		Y
ASSISTANT REFEREE 2		Y
SAFETY OFFICER		Y
COURSE OFFICER		Y
STARTER		Y
CHIEF JUDGE		Y
TURN JUDGES		Y
		Y
RACE JUDGE – ASHORE		Y
		Y
RACE JUDGES – AFLOAT		Y
FINISH JUDGES		
MEN'S RACE		
LADIE'S RACE		
CHIEF TIMEKEEPER		Y
MEN'S RACE		
LADIE'S RACE		
CLERK OF THE COURSE		
ASSISTANT CLERK OF THE COURSE		
REGISTRATIONS/RECORDER		
CANOEIST COORDINATOR		Y
ANNOUNCER		Y

BOATS

Compile a complete list of the boats that are to be used, their role and crew including technical officials. Include a separate set of emergency procedures for the boat crews to execute if the Safety Officer activates a water evacuation or rescue. This section will also contain a list of the mandatory equipment that is to be carried on the boats.

(See Appendix B)

COURSE MAP







APPENDIX E: BOATS AND EQUIPMENT

BOATS

Boats used in open water competitions under the Home Federation Laws and Rules can be identified by their roles. The three main roles are:

Safety Boat: has a remit covering the whole of the course and competitors. The safety boats will be used to carry event officials such as, referees, the course officer, and race judges. In events of over 10km race judges in safety boats will be allocated to individual swimmers and will carry out the roles of the escort safety boat.

Escort Safety Boat: a special type of safety boat used only in events over 10km. It has the same functions as a general safety boat; however it is dedicated to a single swimmer and will carry the swimmer's coach or representative as well as a race judge and the boat crew.

Rescue Boat: a fast boat capable of navigating the whole course quickly. The object will be to monitor the whole course and be capable of rescuing any swimmer, boat crew or spectator who may get into difficulty during the event. No race official with a duty of judging any technical aspect of the event should be carried on board. Communications will be by radio, keeping in touch with the safety officer, referees and other bodies such as coastguard.

In addition to these three types of boat it is usually possible to improve safety by utilizing canoe lifeguards in kayaks.

SAFETY BOAT

› Role

A self-propelled boat dedicated to a race official. They are used for all race officials afloat. These include referees, course officer, safety officer, (if afloat); turn judges, starter, finish judges and race judges. The individual craft will either be securely moored (e.g. turn boats, start and finish boats) or patrol the course as specified in the race procedures and directed by the referee. In the case of events over 10km

extra safety boats will be allocated to escort individual swimmers, these will be designated escort safety boats.

Propulsion can be by motor, oars, or paddles and the boat must be seaworthy and powerful enough to navigate the course according to its role. The risk register for each boat should identify the worst conditions the craft is expected to experience.

› Personnel

Race Official(s) plus competent boat crew sufficient to handle the craft under all identified water conditions.

Note: Boats used for turns and at the start and finish, which are securely anchored or moored, can dispense with separate boat handling crew, however the number of occupants of the boat should never be less than two.

› Safety Boat Equipment

(See equipment matrix)

ESCORT SAFETY BOAT

› Role

A safety boat that is dedicated to a single swimmer, only required for events over 10km but can be used for shorter events if the Safety Officer so dictates. An Escort Safety Boat has the same functions as a General Safety Boat; however it is dedicated to a single swimmer and will carry swimmer's coach or representative as well as a race judge and the boat crew. The Escort Safety Boat will navigate the full course acting as the swimmer's pilot boat and first line of rescue. No contact may be made with the swimmer and the boat must navigate so as not to foul other swimmers. The swimmer's representative may offer coaching and tactical advice to his swimmer and he will provide equipment for feeding the swimmer; this equipment must be such as to ensure that the swimmer does not have any contact with the boat or its occupants.

Propulsion may be by motor, oars, or paddles. The boat must be seaworthy and powerful enough to stay alongside the swimmer at all times and in all expected conditions including the worst conditions identified in the risk register.

› Personnel

Race judge allocated to his craft by random draw, swimmer's coach or representative plus competent boat crew sufficient to handle the craft under all identified water conditions.

› Escort safety boat equipment

(See equipment matrix)

RESCUE BOAT

› Role

A fast powerboat that is dedicated to all safety aspects on the water. The rescue boat must not carry race officials but must have radio contact with the safety officer, referee and the local safety organisation, (i.e. coastguard or lake safety authority.)

› Personnel

A competent boat crew sufficient to handle the craft under all identified water conditions, plus at least one able bodied passenger trained in water safety and able to direct operations when rescuing a swimmer. The crew must be RYA qualified to an appropriate level for the event, including first aid. It may be advisable to have one rescue boat with trained divers aboard. The safety officer will decide this requirement after completing his risk assessment.

› Rescue Boat Equipment

(See equipment matrix)

KAYAKS

In addition to dedicated fast rescue craft it may be desirable to employ kayaks manned by qualified canoe lifeguards. These can be deployed around the course at the direction of the safety officer. They will act as extra eyes and ears looking for actual or potential safety problems. They can be a distressed swimmer's first line of aid, providing buoyancy and the ability to tow the distressed swimmer away from the pack to a position where a rescue boat can take over. In events of 10km and under a kayak may be designated as escort safety craft. In this case the kayak becomes/acts purely as a guide, safety boat and first line of rescue. Only those items of equipment identified as safety related need to be carried.

BOAT TYPE & FUNCTION	SAFETY BOAT	ESCORT SAFETY BOAT	RESCUE BOAT
Safety Related equipment			
Propulsive power	Engine or oars	Engine or oars	Engine
Alternative means of propulsion	Oars or paddle	Oars or paddle	Engine or oars+
Spare fuel (if appropriate)	■ ■	■ ■	■ ■
Lifejackets for all personnel	■ ■	■ ■	■ ■
Spare lifejacket	■ ■	■ ■	■ ■(2)
Whistle	■ ■	■ ■	■ ■
Flares	■ ■	■ ■	■ ■
Torch and spare batteries	Desirable	Desirable	Desirable
First Aid kit (contents appropriate to conditions)	■ ■	■ ■	■ ■
Flag Alpha	■ ■	■ ■	■ ■
Blankets (in sealed packets)	■ ■	■ ■	■ ■
Survival bag	■ ■	■ ■	■ ■
Throw line	■ ■	■ ■	■ ■
Means of removing swimmers from the water	■ ■	■ ■	■ ■
Race Official equipment			
Radio	■ ■	■ ■	■ ■
Whistle	■ ■	■ ■	N/A
Timer	Desirable	Desirable	N/A
Binoculars	Desirable	Desirable	N/A
Pens and pencils	■ ■	■ ■	N/A
Clipboard	■ ■	■ ■	N/A
Event log, used to record observations and incidents	■ ■	■ ■	N/A
Programme of events	■ ■	■ ■	■ ■
List of entries	■ ■	N/A	N/A
Chart or plan of the course.	■ ■	■ ■	■ ■
Radio call sign list	■ ■	■ ■	■ ■
Copy of approved radio procedures	■ ■	■ ■	■ ■
Copy of race procedures	■ ■	■ ■	N/A
Copy of emergency plans	■ ■	■ ■	N/A
Compass	Desirable	Desirable	N/A
GPS (course officer only)	Desirable	N/A	N/A
Message board for writing instructions to swimmer	■ ■	■ ■	N/A
Means of cleaning message board	■ ■	■ ■	N/A
Red & yellow warning cards	■ ■	■ ■	N/A
General for all boat occupants			
Food and water	■ ■	■ ■	■ ■
Sun protection (High factor sun cream)	■ ■	■ ■	■ ■
Hats (plus means of attachment)	■ ■	■ ■	■ ■
Protective clothing for all conditions	■ ■	■ ■	■ ■
Toilet provision (desirable)	Desirable	Desirable	Desirable
Mobile phones (desirable)	Desirable	Desirable	Desirable





APPENDIX F:

RADIO PROCEDURE

The use of two-way radios is a vital tool to enable an open water event to be run safely. To meet this requirement it is necessary to establish some simple operating procedures.

These should include:

- what radio cover is needed;
- what coverage is like over the whole course;
- identify any radio black spots;
- who should have access to a radio and thus;
- how many handsets will be required;
- procedure and calls in the case of an emergency – designate the call to be used to warn all radio stations;
- radio complan which contains the channel allocations and call signs.

Radios and spare batteries must be fully charged before the event. If time allows it is worth testing the state of the batteries to establish if they are holding their charge.

On the day of the event issue radios, spare batteries, call signs and procedures and brief all radio operators.

Carry out a radio check before each event.

CHECKING RADIO RECEPTION

The Safety Officer will conduct a check before the event starts.

All stations this is Safety officer. Radio check, stations to respond individually when addressed, over.

The safety Officer will then commence to call each station individually

Station. x.. this is Safety officer – Radio check, over.

The individual stations will then respond **Safety Officer this is Station.x.. – received loud and clear.**

After all the messages have been received the final message will be:

All stations this is Safety Officer: - All stations loud and clear, radio check complete.

There will be other calls if any of the stations fail to respond or are not receiving loud and clear. Throughout the radio check the Safety Officer is in charge and the other stations should only respond when asked to.

SAFETY MESSAGE

A safety message is used to alert all stations that an emergency has occurred and to stop all routine radio calls. The safety officer will make the call and from that point radio calls should then only be made if they relate to the emergency. The safety officer will be in charge. When the situation has been resolved the safety officer will transmit the message that returns radio communications to normal operations. The form of the safety messages will be as agreed in the safety case and briefed to all operators. The example terminology given below is that used by the British Armed Forces:

- to alert the network that an emergency situation is developing **“all stations – minimise”**
- to revert to normal operation **“all stations - cease minimise”**

TO SEND A MESSAGE

Check the radio is on and that you are using the correct allocated channel, the battery level is ok and that the volume level is set.

- press the transmit button,
- pause,
- send your message, (ensure that you speak clearly and slowly),
- pause,
- release transmit button.

The pauses are necessary to ensure that the start and finish of your message get transmitted properly; the duration need be no more than 1-2 seconds.

Wait for response; repeat your message if necessary.

Your message should always start with the identity of the person you are calling followed by your identity. For example if you are the referee calling the safety officer - **“Safety officer this is lead referee”**.

It is usual to wait for a response from your target before you send the body of your message.

Do not hold the transmit button down any longer than necessary as this activates your microphone and blanks all other radio calls.

Always check that nobody else is transmitting before you start your call.

PROCEDURAL WORDS

There are several procedural words used in radio communications, the most important to remember are:

Over: the invitation to reply

Out: the end of working

Received: used to acknowledge receipt of a message

Say again: repeat your message.

Say again all after xxx: repeat your message from xxx onwards

Note: it is never correct to use Over and Out!

PROCEDURAL NOTES

- keep messages brief and to the point
- always use the call signs - avoid personal names
- avoid using slang, abbreviations or swear words
- break a long message into easily managed smaller messages
- never transmit sensitive personal information over the radio
- use the phonetic alphabet to spell out names when asked
- radios are only to be used for event related information
- some teams may have their own radios and this needs to be taken into account when allocating wavelengths to ensure the safety radios are not interfered with

EXAMPLE MESSAGES

Rescue boat one calls the safety officer	Safety Officer this is rescue one	Alerts Safety Officer and warns other stations to remain silent until this exchange is complete
Safety Officer replies	Rescue one this is Safety Officer	Establishes the two way communication
Rescue one sends message	Safety officer this is rescue one - I have two swimmers who have retired, numbers 24 and 53	
Safety Officer replies	Rescue one this is Safety Officer – received	The normal simple reply, however In this case there is important safety information and it is advisable to repeat the important details to confirm your understanding
Alternative, clearer message	Rescue one this is Safety Officer – received - understand that swimmers 24 and 53 have retired and are safely aboard your boat	Ensures that the important safety information has been received correctly. Other stations will take note of the information
Safety Officer	All stations – minimize	Safety message
Safety Officer	All stations – cease minimize	
Safety Officer	All stations this is Safety Officer – Radio check	Alerts all stations to the need to respond
Individual stations	Safety Officer this is -----, received loud and clear	Stations respond individually as requested
Safety Officer	All stations this is Safety Officer: - All stations loud and clear, radio check complete	Safety Officer confirms Radio Check is complete and allows normal radio traffic to commence

THE PHONETIC ALPHABET

LETTER	WORD
A	ALPHA
B	BRAVO
C	CHARLIE
D	DELTA
E	ECHO
F	FOXTROT
G	GOLF
H	HOTEL
I	INDIA
J	JULIET
K	KILO
L	LIMA
M	MIKE
N	NOVEMBER
O	OSCAR
P	PAPA
Q	QUEBEC
R	ROMEO
S	SIERRA

T	TANGO
U	UNIFORM
V	VICTOR
W	WHISKY
X	X RAY
Y	YANKEE
Z	ZULU

NUMERAL	SPOKEN WORD
1	WUN
2	TOO
3	TREE
4	FOW-ER
5	FIFE
6	SIX
7	SEV-EN
8	AIT
9	NIN-ER
0	ZERO

CALL SIGN	POSITION	NAME	MOBILE NO
Referee	Referee's boat		
Assistant Referee 1	Ashore		
Assistant Referee 2	Ashore		
Safety Officer	Safety Officer's Boat		
Course Officer	Course Officer's Boat		
Safety Boat 1	Race Judge afloat		
Safety Boat 2	Race Judge afloat		
Turn A	A Turn Boat		
Turn B	B Turn Boat		
Chief Judge	Finish		
Chief Timekeeper	Finish		
Race Control	Announcer's Caravan		
Recorder	Beach		
Race Judge 1	Beach		
Race Judge 2	Beach		
Race Judge 3	Beach		
Race Judge 4	Beach		
Rescue 1	Rescue Boat 1		
Rescue 2	Rescue Boat 2		
Chief Lifeguard	Canoe Lifeguards		



APPENDIX G:

EVENT TIMESCALES

This is a sample template for planning an open water event. Use the entries as a checklist when drawing up your own requirements. Remember to always allocate an individual to carry out the action and set a target date for completion.

Task	Actions	Target date	Notes
12 to 6 months			
Set up Organising committee			
Identify location			
Gain support from local Council			
Propose possible event dates			
Check for clashes with other events local and national			
Fix event date			
Carry out initial risk assessment			
Draft event budget			
Book facilities (pool, sports centre, etc)			
Inform local services including police, hospitals and first aid organisations			
Apply for road closures if applicable			
Identify parking options			
Design courses			
Gain sponsorship			
Identify key technical officials and check availability			
Enrol help from local swimming clubs, canoe-lifeguards and boat owners			
6 to 3 months			
Identify race timings, measure and finalise courses			

Finalise risk assessment			
Send copy of draft safety case to local authority or landowner			
Prepare and distribute event publicity (e.g. posters, web-site entries)			
Prepare and distribute entry forms			
Prepare draft safety case			
Book medical services			
Identify suppliers of necessary equipment such as radios, swim hats or t-shirts.			
Book accommodation			
Update budget			
Arrange site meeting			
Source an announcer			
Order medals/certificates			
Arrange venue dressing i.e. signage			
Book PA system			
3 to 2 months			
Plan event site layout			
Order equipment as necessary (e.g. radios, survival bags, timing equipment)			
Confirm availability of all technical officials and other helpers			
Prepare event programme			
Produce accreditation (if restricted access)			
Organise parking stewards			
Source fencing/crowd barriers			
Organise catering			
1 month			
Accept entries and dispatch competitor information packs			
Prepare technical officials duty list			
Send out briefing packs to technical officials			
2 weeks			
Brief emergency and medical services as required			
Update Local Authority			
Prepare commentators notes			
Prepare start list			
Print off event documentation			
Produce a contract card			
1 week			
Final meetings as required			
Final equipment/supply checks			

2 days			
Equipment arrival			
Distribute equipment			
1 day			
Course check			
Marquee erection			
Set up doping control if required			
Prepare all registration			
Test race communication equipment			
Issue equipment to key personnel			
Begin registration if possible			
Pre-race conference with Organising committee			
Race Day			
Officials briefing			
Mobilise officials and other helpers			
Race registration			
Check course/s ready			
Check are in place			
Compile final start list			
Brief competitors			
Start race			
Judge race and monitor safety			
Finish race			
Check and print results			
Announce results			
Present awards and prizes			
Retrieve equipment issued to officials			
Strike camp and clean up			
Prepare press release and issue to media			
Debrief Organising committee and key officials			
De-brief from Dope Control			
Post-Race Day			
Finish clean up			
Check and return equipment			
Post results and unclaimed awards			
Prepare post event report for the ASA			



APPENDIX H:

EVENT CHECKLIST

EVENT DATE:	VENUE:	MAX. NO. COMPETITORS: LEVEL: NOVICE/EXPERIENCED AGE RANGE:
CO-ORDINATOR:	TYPE OF WATER:	

Criteria/Action	Complete	Comments
Administration & Organisation		
Confirm date		
Confirm venue		
Local authority licence/approval		
Event team selected		
Named officials specified		
Confirm Event Co-ordinator		
Pre-event course survey		
Event advertised		
Entry form completed		
Entry disclaimer signed by entrant		
Event information pack		
Closing date		
Specific medical considerations		
Insurance		
Public Liability		
Event authorised to proceed:		
By whom?		
Medical/safety		
Pre event briefing		
To officials		
To competitors		
Presentations post events		
Post events site clearance		

Officials		
As per Home Federation/FINA Laws		
Inter-Service Liaison		
Local Authority Safety Officer		
Coastguard		
Harbour master		
RNLI		
Police		
Ambulance service		
Local hospital A&E		
Local media		
Water Users representative		
Fisherman's representative		
Owners representative		
Lifeguards		
Fire service		
Independent rescue		
Venue		
Event history		
Course history		
Changing facilities		
Showers & toilets (Hot/Cold Water)		
Bad weather contingency		
Access for emergency vehicles		
First aid station		
Refreshments		
Hot Food		
Towels & blankets		
Hot water bottles		
Sleeping bags		
Rescue boats launching facilities		
Specific shore side pollution		
Swimmers water access		
Swimmers water egress		
Emergency rescue points		
Feeding stations		
Public access to course		
Other water based users		
Historical weather data		
Historical temperature data		
Historical water quality data		
Water quality certificate obtained?		
Location of water's origin (if applicable)		
Minimum water temperature		
Maximum water temperature		
Maximum air temperature		

Water obstruction data		
Weils Disease present?		
Tides & Currents data		
Daylight hours data		
Timing of event		
Check entry and egress from water for pollution/hazards		
How will the swimmers enter the water?		
If from a jetty; is it safe?		
Signage		
Are blue algae a problem?		
Do you have a chart of the facility?		
Is wildlife a problem?		
Post-Event refreshments		
Parking		
Feeding stations		
Observation tower		
PA System		
Accommodation		
Course Design		
Data from surveys		
Course marking		
Obstacles marked		
Map of course		
Spectator viewing areas		
Alternative venue		
What is the criterion?		
Pollution, weather		
Safety Considerations		
Motorised rescue boats		
Brief team		
Numbers required		
Swimmers escort		
Kayaks		
Boat per person?		
Numbers required		
Lifeguards available?		
Competence of safety boats crews		
Event medical response team		
First Aid at Work Certificates		
Event Medical support		
Major Incident Plan		
Radios		
Emergency channel?		
Batteries charged?		
Batteries spares?		

Mobile phones		
Radio blank spots		
Designated evacuation points		
Up to date weather forecast		
Restriction to other water users		
Danger of sudden water changes		
Danger of sudden climatic change		
Depth of water		
Temperature variation due to low temperature inversion		
Visibility of whole course		
Jellyfish		
Prevailing winds		
Availability of sub-aqua (Rescue)		
Loud hailers		
Log of event and appoint recorder		
Insurance		
Identification of swimmers		
Nominated hospital/A&E Unit		
Finishing procedures		
Cut of time		
Recording and reporting of accidents to the ASA		
Safety briefing to competitors and officials		
Safety briefing to other staff		
Recording apparatus		
Training of rescue craft drivers		
Competence of rescue craft drivers		
Training/competence of rescue kayaks		
Swimmers identified by hat and numbers		
Brief competitors		
Compulsory wearing of hats		



APPENDIX I: SAMPLE EVENT CONDITIONS

EVENT INFORMATION

Date:

Venue:

Venue Facilities: EXAMPLE

Changing Facilities

Toilets and showers

Wetsuits for hire (£3.80 each)

Café

Car Parking (£3)

Locker tokens – 50p

INSERT MAP

Entry Fee: £15

To enter the event, please click here: []

EVENT SCHEDULE

Wave	Registration	Briefing	Warm up	Start
1	08:30 – 09:30	09:45	09:50	10:00
2	08:30 – 09:30	10:00	10:05	10:15
3	08:30 – 09:30	10:15	10:20	10:30
4	09:00 – 10:00	10:30	10:35	10:45
5	09:00 – 10:00	10:45	10:50	11:00
6	09:30 – 10:30	11:00	11:05	11:15
7	09:30 – 10:30	11:15	11:20	11:30
8	10:00 – 11:00	11:30	11:35	11:45
9*	10:00 – 11:00	11:45	11:50	12:00
10*	10:30 – 11:30	12:00	12:05	12:15

* Wave 9 and 10 will only be available if all other waves reach full capacity.

CONDITIONS

1. Swimmers must be a registered member of the ASA/ SASA/WASA to take part in the event. Temporary memberships are available at an additional cost of [£].
2. You must be [] years or older on the day of the event to enter.
3. [Wetsuits are compulsory for the 1km swim if you are aged [] on the day of the swim. No swimmer aged [] will be allowed in the water without a wetsuit on. We recommend wearing a swim-specific wetsuit i.e. suits designed for swimming, which will provide extra buoyancy and warmth.
4. If the water temperature falls below [] degrees on the day of the event, wet suits will be compulsory for all participants. We recommend wearing a swim specific wetsuit i.e. designed for swimming, which will provide extra buoyancy and warmth.
5. [By entering the 1km swim, you will declare that you can swim at least 1500 metres nonstop in a pool (the equivalent of 60 lengths in a 25m pool)]

GENERAL INFORMATION

› Age Restrictions

To be eligible to take part in the event you must be at least [] years old on or before the day of the swim.

› Waves

There will be approximately [] swimmers in each wave.

› Car Parking

Car parking is [£] and is paid on arrival at the entrance gate. Car parking is available in the café/courtyard car park and on the grass verges on the way down to the water sports centre. Please follow directions from the car parking stewards.

› Facilities

There are toilet and shower facilities available in the water sports centre and lockers available at 50p.

› Camping

Camping is available at [] and can be booked through the park office on []. This must be booked by the [] prior to the event date. Tents: £6.50 and Caravans / Camper Vans £8.50

› Registration

Please register at the registration desk in the courtyard at the time shown for your wave on the event schedule. You will be given a swim cap and wristband; please do not swap these with your friends!

› Briefing

Briefings will take place before each wave on the edge of the lake at the time specified for each wave on the schedule.

› Safety

A safety information pack will be available to download from the event page closer to the event which will include important information regarding your swim. Please ensure you spend the time reading through this document before arriving at the event.

› What to Bring

We strongly recommend wearing a wetsuit. Wetsuits are compulsory for anyone aged [] and for everyone if the water temperature drops below []. You will also need to bring goggles.

› Wetsuit Hire

The water sports centre has a limited number of adult and child wetsuits of various sizes to hire at £3.80 each. Wetsuits will be hired out on a first come first serve basis.

› Medals

You will receive a medal on completion of your swim.

› Catering

There will be a number of catering units on site and you will also receive free soup and a roll after your swim to warm up! This will be served from the marquee on the green.

› Medical Cover

The Red Cross will be onsite providing medical cover.

› Medical Conditions

It is important that you inform us of any medical conditions upon registration or by emailing [] and that you have read and considered the Pre-Exercise Review.

› Withdrawals

If you wish to withdraw from the event please email [] with your name and ASA Number. No refunds will be given for this event.

› Further Info

If you need any further information please contact [] on [].

PRE-EXERCISE REVIEW

Has your doctor ever said you have a heart condition (such as coronary heart disease, congenital heart disease or valvular heart disease)?

Yes / No

Do you feel pain in your chest, shortness of breath or dizziness when you undertake physical activity?

Yes / No

In the past month have you had chest pain when you are not doing physical activity?

Yes / No

Do you lose your balance because of dizziness or do you ever lose consciousness?

Yes / No

Is your doctor currently prescribing drugs for blood pressure or a heart condition or take any medication that may affect you when taking part in physical exertion?

Yes / No

Are you pregnant?

Yes/No

Do you suffer from epilepsy?

Yes/No

Do you suffer from diabetes mellitus and need to take insulin?

Yes / No

Do you know of any other reason which may affect your ability to take part in physical activity?

Yes / No

If yes please state why:

If you answered NO to all questions you can be reasonably sure that you can be physically active. If you answered YES to one or more questions you should consult with your doctor before embarking on physical exercise.





APPENDIX J: QUALIFICATIONS AND EXPERIENCE

DOCTOR

Any attending doctor to national O.W.S. event should have:

- i. Adequate post graduate training and experience of several years duration - minimum 3 years;
- ii. Relevant certified resuscitation skills (certified annually) and ability to cope with the common medical problems encountered in the sport;
- iii. Have good background of aquatic disciplines and knowledge of O.W.S.

ROLE OF THE DOCTOR

› Pre Race

- Ensure current medical history of each athlete is known with particular emphasis to long term medical conditions such as epilepsy, diabetes mellitus etc and necessary immunisations for OWS are up date
- Ensure own medical equipment is easily accessible and up to date to cope with common medical eventualities
- Make race organisers and race C.M.O. aware of any specific medical issues pertaining to British swimmers
- Check medication taken by any athlete on the team and ensure any necessary T.U.E.'s are up to date
- Assess fitness to swim of each athlete with reference to any intercurrent infection or injury that has arisen since the medical declaration was completed in liaison with team physiotherapist
- Ensure adequate medical provision is available by the organising authorities and check the medical room has the necessary resuscitation equipment and for management of hypothermia and other medical emergencies

- Check that there is both ambulance provision and location of nearest hospital in the event of a medical emergency
- Liaise with the head coach/NPD regarding all of the above and be involved in any fitness to participate decisions

› During the Race

- Pay careful attention to the progress of any British athlete during the race and have means of communication to team staff in close proximity with the swimmer
- Be immediately available in the event of a swimmer being withdrawn before the conclusion of the race for medical reasons

› Post-Race

- Be immediately available at the conclusion of the race to check there are no medical problems and attend to these and when necessary
- Accompany any athlete selected for Doping Control to the facility and act as their representative during the procedure
- If necessary accompany any unwell athlete back to the team hotel but if not stay at the event location until the last athlete departs in case of delayed problems
- On the return to the UK follow up any medical problems that may have arisen with home coach, GP and or EIS Sports Physician

SAFETY OFFICER

Any attending Safety Officer to national O.W.S. event should have:

- i. Adequate qualifications and experience in risk assessment, safety planning, procedures and implementation;
- ii. Have good background of aquatic disciplines and knowledge of O.W.S.;
- iii. Previous Experience in the role of Safety Officer;
- iv. Desirable to have formal H&S qualifications.

ROLE OF THE SAFETY OFFICER

› Pre-Race

- Be responsible to the Referee for all aspects of safety related to the conduct of the competition
- Check that the entire course, with special regard to the start and finish areas, is safe, suitable, and free of any obstruction
- Be responsible for ensuring that sufficient powered safety craft are available during the competition so as to provide full safety backup to the escort safety craft
- Obtain knowledge of water and tidal conditions in a variety of water sources (i.e. lake, rivers, sea and estuaries) of event concerned
- Provide prior to the competitions to all swimmers a tide/current chart clearly indicating the time of tide changes on the course and showing the effect of tides or current on a swimmer's progress along the course
- In conjunction with the Medical Officer advise the Referee if, in their opinion, conditions are unsuitable for staging the competition and make recommendations for the modification of the course or the manner in which the competition is conducted
- Distribute two-way radios
- Check the weather forecast and ensure any changes in weather are planned for and actioned communicated to the officials/referees
- Ensure that all safety personnel and positions highlighted in the safety documentation and race plan are present and briefed
- Check all communication equipment according to rules and communication procedure

› During the Race

- Monitor the race boats and supervision of all swimmers to ensure they are being controlled in safe manner
- Monitor weather conditions and be prepared for any remedial action to be put into place as a result of any major changes
- Ensure on-going athlete checks/head counts are being performed and all athletes are identified

› Post Race

- Ensure all athletes are accounted for
- Ensure all officials and safety personnel are accounted for
- Collect two-way radios and obtain safety de-briefs of safety personnel of the event and report any findings to race promoter and Race referee

APPENDIX K:

BEAUFORT WIND SCALE

BAUFORT NUMBER	DESCRIPTION	WIND SPEED	WAVE HEIGHT	SEA CONDITIONS	LAND CONDITIONS
0	Calm	< 1km/h	0 m	Flat.	Calm. Smoke rises vertically.
		< 1 mph			
		< 1 km	0 ft		
		< 0.3 m/s			
1	Light air	1.1-5.5 km/h	0-0.2m	Ripples without crests.	Smoke drift indicates wind direction and wind vanes cease moving.
		1-3 mph			
		1-2 km	0-1ft		
		0.3-1.5m/s			
2	Light breeze	5.6-11 km/h	0.2-0.5m	Small wavelets. Crests of glassy appearance, not breaking.	Wind felt on exposed skin. Leaves rustle and wind vanes begin to move.
		4-7 mph			
		3-6 km	1-2 ft		
		1.6-3.4 m/s			
3	Gentle breeze	12-19 km/h	0.5-1 m	Large wavelets. Crests begin to break; scattered whitecaps.	Leaves and small twigs constantly moving, light flags extended.
		8-12 mph			
		7-10 km	2-3.5 ft		
		3.4-5.4 m/s			
4	Moderate breeze	20-28 km/h	1-2 m	Small waves with breaking crests. Fairly frequent whitecaps.	Dust and loose paper raised. Small branches begin to move.
		13-17 mph			
		11-15 km	3.5-6 ft		
		5.5-7.9 m/s			
5	Fresh breeze	29-38 km/h	2-3 m	Moderate waves of some length. Many whitecaps. Small amounts of spray.	Branches of a moderate size move. Small trees in leaf begin to sway.
		18-24 mph			
		16-20 km	6-9 ft		
		8.0-10.7 m/s			

6	Strong breeze	39-49 km/h	3-4 m	Long waves begin to form. White foam crests are very frequent. Some airborne spray is present.	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult. Empty plastic garbage cans tip over.
		25-30 mph	9-13 ft		
		21-26 km			
		10.8-13.8 m/s			
7	High wind, Moderate gale, Near gale	50-61 km/h	4-5.5 m	Sea heaps up. Some foam from breaking waves is blown into streaks along wind direction. Considerable airborne spray.	Whole trees in motion. Effort needed to walk against the wind.
		31-38 mph	13-19 ft		
		27-33 km			
		13.9-17.1 m/s			
8	Gale, Fresh gale	62-74 km/h	5.5-7.5 m	Moderately high waves with breaking crests forming spindrift. Well-marked streaks of foam are blown along wind direction. Considerable airborne spray.	Some twigs broken from trees. Cars veer on road. Progress on foot is seriously impeded.
		39-46 mph	18-25 ft		
		34-40 km			
		17.2-20.7 m/s			
9	Strong gale	75-88 km/h	7-10 m	High waves whose crests sometimes roll over. Dense foam is blown along wind direction. Large amounts of airborne spray may begin to reduce visibility.	Some branches break off trees, and some small trees blow over. Construction/temporary signs and barricades blow over.
		47-54 mph	23-32 ft		
		41-47 km			
		20.8-24.4 m/s			
10	Storm, Whole gale	89-102 km/h	9-12.5 m	Very high waves with overhanging crests. Large patches of foam from wave crests give the sea a white appearance. Considerable tumbling of waves with heavy impact. Large amounts of airborne spray reduce visibility.	Trees are broken off or uprooted, saplings bent and deformed. Poorly attached asphalt shingles andingles in poor condition peel off roots.
		55-63 mph	29-41 ft		
		48-55km			
		24.5-28.4 m/s			
11	Violent storm	103-117 km/h	11.5-16 m	Exceptionally high waves. Very large patches of foam, driven before the wind, cover much of the sea surface/ Very large amounts of airborne spray severely reduce visibility.	Widespread damage to vegetation. Many roofing surfaces are damaged; asphalt tiles that have curled up and/or fractured due to age may break away completely.
		64-72 mph	37-52 ft		
		56-63 km			
		28.5-32.6 m/s			
12	Hurricane-force	> 118 km/h	> 14 m	Huge waves. Sea is completely white with foam and spray. Air is filled with driving spray, greatly reducing visibility.	Very widespread damage to vegetation. Some windows may break; mobile homes and poorly constructed sheds and barns are damaged. Debris may be hurled about.



APPENDIX L:

ATHLETE'S OPEN WATER COMPETITION SAFETY CHECK LIST

Event Admin	Is there a dedicated Safety Officer? (If no safety officer is present, who makes decisions in regard to safety? If no one nominated the risk is increased.)	
	Is there a dedicated Medical Officer?	
	Who is responsible for decisions on changes to the event?	
Conditions	What is the minimum depth of water at any point on the course (This should be 1.40 m)	
	What is the water temperature? (This should be a minimum of 16°C) (Preferred minimum 18°C, if below this figure what is the likelihood for temperature decrease? Maximum temperature to be 28°C action to be taken to reduce risk. Either shorten length, increase supervision to a level where each swimmer is monitored. Or postpone to a time when ambient and water temperatures are reduced and the race can be run safely.	
Safety Boats	How many safety boats are on the course?	
	Do all boats have a safety guard on their propeller? (All boats on the course should have propeller guards, however if they don't then procedures should be in place to mitigate risk, provide guidance on the minimum distance to keep from the swimmers. Propeller guards to in place on safety boats and procedures of how to manoeuvre amongst swimmers for safety boats and any kayaks on course.)	
	Are there lifeguards on the safety boats? (If life guards or medical support proficient in water rescue and resuscitation then there is an increased risk, however, the need is to be defined on a site by site basis as it may prove this support may be applicable from the shore.)	
Medical	What medical back up is available at the competition? (This should be included in the NOP and detail what facilities are included (provision for hypothermia and hyperthermia should be considered)	
	Is there an ambulance on site? (A vital element of the EAP. There should be an ambulance in place, if not what is the explanation and procedure for emergency response?)	
Event Admin	Is there a dedicated events Director?	
Start	How deep is water at the start? (Minimum 1.40 m) - (If below this depth it should be an in water start. Below 1m find an alternative start point)	
	Are there currents on the field of play?	
	What are those currents? Direction/ strength etc? (Are these clearly identified in the appropriate places, this communicated to the athletes and team management and strength of current deemed acceptable to swim in.)	

Conditions	What is the tidal information? (A lack of information would constitute an increased risk. Information on currents, speed and direction provided and measures have been put in place to identify areas of current, procedures to manage and increased supervision on the course would all constitute a reduce level of risk.)	
	What are the expected weather conditions? (Increases or decreases in temperature, increase in winds or electrical storms all pose potential increase to risk. If the forecast has been taken into consideration and actions to reduce risk are apparent it would suggest a reduced level of risk associated with this element.)	
	Have we seen a copy of the certificate of suitability for use of the venue issued by the appropriate local health and safety authorities?	
	Is there a lead boat? (For both men and women if swimming 10/15 mins apart?)	
Safety Boats	Where will the safety boats be positioned?	
	Are there lifeguards on the shore? (If life guards or medical support proficient in water rescue and resuscitation then there is an increased risk, however the need is to be defined on a site by site basis as it may prove this support may be applicable from the shore.)	
	Are there any other boats allowed on the field of play? (All boats on the course should be for a given purpose and given instructions of operation as indicated in the NOP.)	
	If so, how many and what are they? (All boats on the course should be for a given purpose and given instructions of operation as indicated in the NOP.)	
Medical	Where is the medical back up situated? (The further from the course the medical back up is the greater the risk. If a dedicated spot is not part of the procedures risk is increased further.)	
	Can the doctor speak English? (Steps should be taken to ensure that communication is understood. The official language of most international events is English. If the medical support cannot speak English and interpreter should be provided so that no delay is incurred in administering medical treatment.)	
Start	Where is the start?	
	Is the start a dive or in the water?	
	If a dive start, how much space is allocated to each competitor?	
	If an "in water start", is this behind a rope, holding onto a rope or other?	
	Is the positioning for the start drawn or a free for all?	
	What is the start signal?	
Buoys	How many buoys are there on the course?	
	Where are the buoys positioned on the course?	
	Which of those buoys are compulsory?	
	What colour, shape and size are the compulsory buoys?	
	What colour, shape and size are the directional buoys?	
	What distance apart are the buoys? (Both compulsory and directional)	
	Are there referees/ judges present at each compulsory buoy?	

Finish	What is the finish? Flat finish/ swim through finish?
	Is the final approach to the finish clearly defined with markers of a distinctive colour which narrow as they get closer to the finish wall?
	Will the finish be filmed and recorded by video system with slow motion and recall facilities including timing equipment?
	Are swimmers being allocated with transponders?
	If so, one or two?
	What is the race timeline?
	Men start time?
	Women start time?
	Numbering for both?
	Transponder issue for both?
What is the time frame from call room to start gun (i.e. swimmers introductions etc)?	
Feeding Stations	How many and where are the feeding pontoons?
	What time do coaches/ team managers need to report to the feeding pontoon?
	Where will 'feeding pole checks' take place?
	What time will coaches/ team managers be taken off the feeding pontoon?
	Are the feeding pontoons fixed?
	Are the feeding pontoons indicated with buoys?
	What height are the feeding pontoons from the surface of the water?
	Are places allocated on the feeding pontoon?
	Are the feeding pontoons directional or is the race side compulsory?
Are there facilities on the feeding pontoon?	
Race Control	Who is the referee for each race?
	Will finger nail/ jewellery checks be done in the call room?
	Will a suit check be done in the call room?
Medical	Where is doping control?
	Do they need passports or photographic accreditation in the call room? Transport to and from the course?
Accreditation	Is the accreditation photographic? If not ensure that passports are required.





APPENDIX M:

REFERENCE LIST

- FINA Handbook (latest Edition)
- The ASA Handbook (latest Edition)
- Diving and Jumping into Swimming Pools and Open Water Areas ISRM ISBN 1 900738 60 0
- THE DIRECTIVE 2006/7/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
- Managing health and safety in swimming pools HSE HSG179
- Guidelines for safe recreational water environments World Health Organisation ISBN 92 4 154680 8
- Swimming Pool Water – Treatment and quality Standards for Spas and Pools PWTAG ISBN 0951 1700766
- Health and Safety at Work Act 1974 www.hse.gov.uk
- Management of Health and safety in the Work Place Regulations 1999 www.hse.gov.uk
- The Directive 2006/7/EC of the European Parliament and Council (The Bathing Water Directive) www.eur-lex.europa.eu
- The Bathing Waters (England) Notice 2008 www.defra.gov.uk
- European commission – Bathing Water Profiles Best Practice and Guidance www.ec.europa.eu





APPENDIX N: CONTACTS

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