



Aquatic Safety Management Services:

RECOMMENDED MINIMUM GUIDELINES FOR OPEN WATER SWIMMING EVENT SAFETY

BACKGROUND

- a. There are an increasing number of public entry events that have an open water swimming component. These include aquathons, triathlons, multi-sport and open water swimming events.
- b. There is a wide range of environments where open water swimming events are held and, within event fields, a wide range of swimming capability.
- c. While water safety practices in New Zealand are of a high quality, the coronial inquest into the drowning of Mr. Fraser Moors in the Harbour Crossing Swim in Auckland on 5th November 2005 led to a number of organisations seeking to establish minimum guidelines for open water swimming events.

1. INTRODUCTION

All of the participating groups and individuals recognised the many benefits to human health and safety derived from events, contests and races held in open water environment.

In the interests of safety for all participants in such events these minimum guidelines have been developed to assist permitting authorities, aquatic safety providers, sanctioning bodies, sponsors and race or event promoters overseeing events open to the general public in bodies of water other than swimming pools.

It is stressed that these are recommended MINIMUM guidelines which should be applied in accordance with local conditions and past experience. It is understood that the broad national guidelines cannot fully address the circumstances in every locale. It is understood that variances in local conditions, environment and organisation may require that these minimum recommendations be exceeded.



2. DEFINITIONS

- 2.1 **RECOGNISED LIFEGAURD TRAINING ORGANISATION (RLTO):** A nationally recognised body which sets standards for the training of lifeguards and aquatic rescuers such as Surf Life Saving New Zealand (SLSNZ)
- 2.2 **TRAINED LIFEGUARD:** A lifeguard currently a member of SLSNZ, trained and certified to provide aquatic safety in water conditions consistent with those where the event will take place by a RLTO.
- 2.3 **WATER SAFETY COORDINATOR (WSC):** The person directly responsible for aquatic safety at the event. The person will be a trained lifeguard with supervisory experience or a person with management level experience overseeing aquatic safety services involving trained lifeguards, either of which in the environment where the event will take place (e.g. open water, surf beach).
- 2.4 **PERSONAL ESCORT:** An individual with a boat or similar equipment with the competence to easily shadow a swimmer and provide immediate aid until a trained lifeguard can assist.

3. MANAGEMENT

- 3.1 The WSC provided by the Surf Life Saving Club, will work independent of the Race Director. All aquatic safety issues should be assigned to the WSC, who should have the authority to ensure that aquatic safety directives are observed. In cases where there is an overall Event Safety Coordinator (ESC), such as in a triathlon or multisport event, where there are other disciplines where safety is a consideration, the WSC should coordinate with the overall ESC. The WSC will be responsible for reporting any issues that compromise safety to the Race Director and/or the ESC and taking necessary, mitigating actions to ensure adequate levels of safety. The WSC must be present at the swim event and must be acting solely as the WSC [i.e. not as a swimmer or a lifeguard].
- 3.2 Aquatic Safety Management Plan (ASMP): The Race Director and the WSC should meet with all providers of public safety for the event to develop a pre-event ASMP which will include emergency action plan for a range of possible 'worst case' scenarios. Pre-event swim cancellation criteria and plans should be developed with clear lines of authority that priorities safety. The emergency action plan should include rules and processes under which the swim will be terminated.
- 3.3 Every 'agency' involved and the Race Director (Organiser) should meet immediately following the event to conduct an operational debrief of the event.



4. LIFEGUARDS

All lifeguard personnel should be a current and appropriately qualified member of a Surf Life Saving Club, trained and certified by a RLTO to provide aquatic safety in water conditions consistent with those where the event will take place. Rescue craft operators should be appropriately trained and equipped in accordance with a RLTO and/or in accordance with the relevant national standards.

5. LIFEGUARD LEVELS

5.1 Determining the appropriate lifeguard levels is critical to event safety. There are many variables that should be considered in this determination, and no single benchmark will be appropriate in every case. The appropriate level for each event can and should be adjusted in accordance with a variety of factors. These include, but are not limited to:

- Past experience for the same or similar events
- Geography of course location
- Number of participants
- Length of the swim course
- Design of the swim course
- Proximity of the swim course to shore
- Anticipated surf/wave size
- Swimming ability of the participants
- Presence or absence of a pre-qualifying swim
- Beach and light conditions
- Surf and surface conditions
- Water temperature
- Use of wetsuits
- Whether participants are required to have a personal escort
- Currents
- Actual and anticipated weather conditions – including wind and fog

5.2 For events that require the competitor to swim more than 1km from land, an assessment needs to be made within the safety planning as to the specific needs of each swimmer relative to lifeguard ratios and/or increased support crews.

5.3 On the day of the event the WSC should make an evaluation as to whether the pre-planned provisions for water safety are still appropriate for the existing conditions. For example, weather, currents, surf conditions or water temperature may cause a need for an increase

in the provision of water safety relative to the number of swimmers in the water at any one time.

5.4 The ASMP will outline the allocation of the rescue response capability along the course to ensure continual observation of all swimmers and immediate response to the need for assistance.

5.5 The ASMP will make provisions to ensure that the course swimmers will take remains safe distance from boaters or other intrusions.

6. MEDICAL SERVICES

6.1 An Event Medical Director (EMD) should be assigned to oversee planning and on-site oversight of the event. This person should, at a minimum, be a currently qualified paramedic.

6.2 All lifeguards assigned to the event should be currently trained by an RLTO in CPR and First Aid.

6.3 No less than one Ambulance Officer (AO) should be available for every 250 swim participants. Each AO should have access to appropriate emergency medical equipment.

6.4 Radio communication between the WSC and EMD should be maintained throughout the event.

6.5 A designated medical area should be established with a tent or other means to shelter patients from the environment and to maintain patient privacy. Medical evacuation from the water to land based emergency medical services assigned to the event should be able to be conducted in ten (10) minutes or less. There should be a dedicated water/land transfer point that remains free from any congestion of swimmers or spectators, and is within very close proximity to emergency medical services.

6.6 At least one advanced life support ambulance must be made available on-site or within a five (5) minute response time for the purpose of evacuating patient(s) to a hospital. Additionally, at least one (1) ambulance should be immediately available at all times throughout the race. This additional ambulance can be certified as either advanced life support or basic life support. Where a hospital emergency room is more than thirty (30) minutes away, air evacuation procedures should be planned or an on-site physician should be staffed.

7. EQUIPMENT

7.1 **LIFEGUARDS:** Each Lifeguard along the swim course should be equipped with an observation platform which the lifeguard is trained and competent to use, e.g. a lifeguard tower, a rescue board, a surf ski or a rescue craft. All lifeguards should also have a rescue



flotation device. All rescue equipment used by lifeguards should meet the relevant specifications of the RLTO.

- 7.2 RESCUE CRAFT:** For all swim events that will extend more than 50 metres from shore, particularly where surf or currents are present, motorised rescue craft (IRB and RWC) should be available and staffed by trained operators. The ASMP should include provisions for summoning additional rescue craft, such as the police or harbour patrol, as needed in major emergencies.
- 7.3 ADDITIONAL SAFETY EQUIPMENT:** The ASMP should also make provisions for any additional equipment the rescue vessel/s should carry due to the specific needs of a particular event. i.e. navigation lights or flares
- 7.4 COMMUNICATIONS:** A dedicated race control communications system should be employed and be available for all event functions. A public address system capable of reaching the swimmers at the start and finish line should be available.
- 7.5 CONTROL CENTRE:** A control centre should be established that functions as a central point for communication, decision making and contact.
- 7.6 SWIMMER IDENTIFICATION:** Swimmers should be required to wear bright (fluorescent preferred) coloured swim caps. All swimmers should be individually numbered (hand, cap or shoulder/leg if non-wet suit) for identification during the event.
- 7.7 COURSE:** A large course map should be able to be viewed by swimmers on site prior to the event. This map will include the location of land based sites such as the medical assistance and race control.
- 7.8 WETSUITS:** Potential participants should be advised of anticipated water temperature in advance. The wearing of wetsuits should be encouraged if swimmers are not acclimatised to local water temperatures. If the water is below 15 degrees and the swim is longer than 400m then wet suits should be required for all swimmers.

8. SAFETY PROCEDURES

- 8.1 LIFEGUARDS:** A safety briefing should be given to all lifeguards prior to the event. The WSC will take all the lifeguards through details of the race including advising the lifeguards of their responsibilities during the race. This briefing will include information on how to communicate during the race and emergency procedures. There should be a de-brief meeting of all lifeguards as soon as practical at the completion of the event.
- 8.2 RESCUE CRAFT OPERATORS:** Should be briefed to operate in close but safe proximity to the swimmers while making every reasonable effort to avoid allowing fumes or expended petroleum, or any wash generated by the rescue crafts movement affecting participants.



- 8.3 **EVENT MEDICAL TEAM:** A meeting of all first aiders should be conducted by the EMD prior to the race. This will provide each medical technician with an outline of their responsibility, procedures in the case of an accident or injury and methods of communication. There should be a de-brief meeting of all medical technicians as soon as practical at the completion of the event.
- 8.4 **SWIMMERS:** A comprehensive safety briefing should be given to all swimmers. Swimmers should be briefed on potential hazards and instructed on how to identify themselves to the lifeguards should the need arise. Whoever delivers this safety briefing (the Race Director or WSC) is expected to read the briefing from a pre-written outline and wherever possible make a copy of this outline available to each swimmer.
- 8.5 **SWIMMER IDENTIFICATION:** In order to quickly identify a missing swimmer an accountability system should be rigidly arranged and coordinated by the Race Director. The system must be able to tabulate the number of swimmers entering and exiting the water, to ensure that all persons are safely ashore. The ideal system will include identification of each race participant by number and name. Identifying the exact person missing is extremely helpful in conducting an efficient search, which includes contacting the person's residence to make missing person notification and to ascertain whether they may have simply departed unannounced.
- 8.6 **COURSE CHECKING:** The course should be inspected for hazards, obstacles and other problems immediately before the race. A bottom survey should be conducted at entry and exit points and the results should be part of the safety briefing for swimmers. Water temperature, water conditions and weather forecasts should be evaluated to ensure they are within the ASMP guidelines.
- 8.7 **COURSE MARKING:** The course to be swum should be appropriately marked with adequate buoys or markers and anchor systems to ensure clarity of course for the swimmers, to avoid swimmer misdirection and ensure the lifeguards can remain focused on swimmer safety. The first turn of the swim event should be located an adequate distance from the start to ensure that swimmers are spread out enough prior to the turn to reduce the chance of collisions.
- 8.8 **SAFETY BRIEFING:** Participants should be advised in all safety literature and announcements that diving into shallow water is dangerous and strongly discouraged. The start should ideally be in deep enough water to prevent shallow diving.
- 8.9 **STARTS:** Wave starts are strongly recommended to reduce congestion, collisions and other body to body contact. This should be discussed and decided prior to the event.



9. WATER QUALITY

The water body should be assessed as appropriate for recreational water contact, based on recommended Department of Health standards and local government assessment procedures as close to the start of the event as possible for results to be available prior to the start of the event. Results of water testing should be made available to all participants and cancellation or relocation should occur should the water quality be unacceptable. Rain or other environmental changes may cause the need for immediate retesting or cancellation of the swim.