

Safety Guidelines For Open Sea Swims

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Summary

Role of Safety Officer

The safety officer should undertake or delegate the following:

- Carry out a risk assessment of the swim location
- Put in place an Emergency Action Plan for each swim location
- Arrange safety boat cover
- Arrange lifeguard cover
- Arrange canoe cover
- Put in place a rescue operations plan for the event
- Carry out pre – swim safety / rescue briefing
- Take charge of the overall rescue cover during the swim
- Advise relevant parties of details of swim event
- In conjunction with the race organiser and representative from the Open Sea Committee make the decision whether or not to run the event on the day.

Safety Boat Cover

- Type of boat most suitable is a Rigid Inflatable Boat or an inflatable
- Minimum recommended number of boats is three
- Minimum recommended crew per boat is three
- Crew should be suitably qualified under the ISA National Powerboat training Scheme or equivalent
- Boats should be fully equipped as per checklist in Appendix 3
- Proper marine communications should be available to each boat
- Safety Boats must have proper insurance for safety cover work

Cancelling or Postponing an Event

Should an event have to be cancelled or postponed this should be done jointly by:

- Event Safety Office
- Race organiser
- Representative of the OSC

The following should be taken into consideration when making a decision to cancel or postpone an event:

- Availability of sufficient safety boat, shore safety and first aid cover
- Prevailing weather conditions
- Prevailing wind speed and direction
- Prevailing sea state with particular attention to wave height

Introduction

This document is intended as a guideline to assist safety officers to plan, prepare and run open sea swims in a safe manner. It is not in itself a risk assessment and procedure document for a specific event. It is important to note that each event will have different risks associated with the specific area and must be evaluated separately, resulting in an individual plan for each event.

On the day of the swim, responsibility for safety lies with the safety officer. Therefore, each safety officer should ensure that there is a full plan and reporting procedure in place so that he/she is aware of any issues that may arise, or if any part of the agreed plan and procedure is not adhered to. Where the safety officer delegates work from these guidelines he/she must ensure that it is carried out in accordance with his/her instructions.

Consideration should be given to a reliable means of recording each swimmer on entering and again on exiting the water, for example, the use of numbered wristbands. This will ensure that all competitors are accounted for at the end of the event.

Proper recording of the risk assessment and management process is important. Should an investigation ensue after an accident or incident, clear records will show the levels of planning and preparation, and highlight the procedures in place to ensure the safe running of the event.

Samples of forms, which may be useful, are included in appendices attached to this document

As with any document dealing with safety practices, there will always be room for further development. It is recommended that a formal re-evaluation of safety and operational procedures be carried out annually, if not on a more regular basis.

Where an event is run in the same location every year, the first risk assessment will require the most work, subsequent risk assessments should only require updating to take into account any changes in the location, unless there are significant changes which would require a completely new risk assessment.

Role of the safety officer for open sea swims

The safety officer should undertake or delegate the following:

- Carry out a risk assessment of the swim location
- Put in place an Emergency Action Plan for each swim location
- Arrange safety boat cover
- Arrange lifeguard cover
- Arrange canoe cover
- Put in place a rescue operations plan for the event
- Carry out pre – swim safety / rescue briefing
- Take charge of the overall rescue cover during the swim
- Advise relevant parties of details of swim event
- In conjunction with the race organiser and representative from the Open Sea Committee make the decision whether or not to run the event on the day.

Risk assessments

Using the phrase “we swim there every year” is not sufficient and would never stand up in defence, following an accident. Best practice is to carry out a full risk assessment for the event and the swim area every time the event is held. Relying on a risk assessment carried out in the past may not take into account any changes in the area or the circumstances surrounding the event.

In order to carry out a risk assessment of the swim area, it is advisable to look at the site on a matching tide. This would normally be two weeks before the event, but the safety officer should consult local tide tables and seek expert local knowledge from for example local Irish Coast Guard, RNLI, or Irish Water Safety personnel.

Starting with the entry point consider whether the swimmer’s marshalling area has enough room for all the swimmers. If not, who will manage this and how will this be managed. Check the area for slippery surfaces, weed, tripping hazards, objects that could cause potential injury (rusty or broken railings etc). Check the depth and whether or not there are underwater obstructions. Where a swim is held at high water, a check for obstacles could be carried out at low water, if the area dries out sufficiently. Plan how to handle the above, and who will carry out the plan. If the swim is going ahead where sea conditions are not smooth, is there an alternative entry and exit point. Such areas will have to be included in the risk assessment.

It is a legal requirement for anyone on board a boat under 7 metres to wear an appropriate personal flotation device. In the promotion of water safety, it is recommended and best practice, for any official involved in the event to wear a personal floatation device when on *or near* the water, for example working at the entry or exit points. This is an issue that the safety office must consider in the risk assessment.

Put in place an emergency action plan (EAP)

Ask all the “what if” questions. These questions should be applied to participants, supporters, spectators, officials and those providing safety cover.

Devise a plan to deal with any potential emergencies. It is vital that everyone involved in the organisation of the event is fully aware of the EAP and knows what is expected of them should the plan be implemented.

Arranging safety boat cover

The minimum recommended number of safety boats required is three, but depending on the expected numbers of participants, the number of boats required may be more than three.

In an ideal situation the local inshore RNLI or Coast Guard boats would provide excellent safety cover. However, for operational reasons, these may not always be available as it may entail too long a time away from station and reduce cover in the event of a Search and Rescue incident.

Civil Defence, sailing and diving clubs can provide well-suited boats and crew. In most of these clubs there is usually a safety officer in charge of the boats, who is normally the best person to approach. Due to their own club’s commitments, it is best to approach them early in the season. In some clubs requests for use of their club boats will need to come before their committee. The boat should be available 1 _ hours before the swim starts, to lay markers and for a safety briefing.

It is important that the boat and crews are covered by insurance. The level and type of cover should be established prior to the event. The safety officer should have sight of a copy of the insurance certificate. The amount and levels of insurance will differ from club to club and will usually consist of two separate insurance policies, one for hull insurance and one for liability. In some cases, club’s insurance may not cover the hull or liability for non-club events. This should be established early in the event planning stage and additional insurance arranged if required. If its own insurance cover covers the swimming event, it may be possible to include the safety boats under this insurance. Where private boats are being deployed, it is essential that the safety officer checks that the owner’s insurance covers the boat for such use, and that sight of the insurance documents is sought.

Details of club contacts in each area can be obtained from the Irish Sailing Association on 01 2800239 or from the Irish Underwater Council on 01 2844601.

Shore Observers

Where possible, shore observers should be appointed and deployed at vantage points from where all parts of the course can be observed. Shore observers should be fully versed in the communication structure and be able to communicate directly (preferably by radio) to the Safety Officer and the senior safety boat crew.

Safety briefing

The safety officer or a person he/she has appointed will need to give a safety briefing to everyone providing safety cover. This should take place one hour before the swim, which will allow sufficient time for safety personnel to take up their places on the water before the start of the swim. It will also allow the safety officer know that all his/her safety cover is in place, and who is missing.

The briefing should cover:

- The rescue plan for the day
- Emergency Action Plan
- Radio working channels
- Lifeguard allocation to rescue boats
- Chain of command – one person nominated to communicate with outside
- First aid points
- Deal with any issues arising
- Agreed verbal, visual and sound communications (VHF, hand signals, use of horns)
- End of day procedure, how to ensure all involved are accounted for

In order to keep the briefing short, all details clearly laid out on sheets that are laminated or in plastic sleeves, and enough copies to go to everyone involved in these briefings

The rescue plan of the day

A rescue plan needs to be devised for each swim; however, in most cases the outline of the plan will be the same for all swims. Local factors will influence the finer details. The purpose of the rescue plan is to have clearly set out the duties and responsibilities of all involved in the safety cover of the swim, such as:

- Where the boats & paddlers will be stationed
- Who is in command
- Reporting and communication procedures
- Reporting of swimmers brought ashore or retired
- Casualty landing points
- When to intervene and remove a swimmer from the water
- Emergency Action Plan (each person's role)
- Who has authority to implement Emergency Action Plan

Again, in order to keep the briefing short, all details clearly laid out on sheets that are laminated or in plastic sleeves, and enough copies to go to everyone involved in these briefings

Who to advise of event

The following should be advised of details of the event:

- Local authority or venue owner if private property
- Gardai
- Coast Guard
- Local RNLI
- Ambulance service (if dedicated ambulance not in attendance)
- Other water users in area
- Port Authority if swimming in port area (e.g. Dublin Port for events held anywhere between Baily lighthouse and Sorrento Point, Dalkey).

Irish Coast Guard

The Coast Guard would like to be aware of any events such as sea swims, which might impact on their operation. If they are aware of the swimming event, they can take it into account if another incident occurs, or if any person involved in the swimming event needs assistance, fore knowledge of what is taking place is always helpful. The following information should be given:

- Location of the swim
- Time of the swim
- Person in charge and their contact numbers (mobile) and back up number
- Call sign of the controlling safety boat and marine VHF channel it is listening on
- Advise when event is completed and all participants and support craft are ashore.

The safety officer would be advised to take on board any advice offered by the Irish Coast Guard relating to running the, such as whether prevailing or expected weather conditions may affect the safety of participants.

Recommendations for Provision of Safety Boat Cover

When arranging safety boat cover, the following should be considered. Where boats and crew are being requested from other organisations such as Sub Aqua Clubs, Sailing Clubs etc, it is recommended to request that the boats and crew meet the following criteria.

Type of Boat

For open sea swims, a Rigid Inflatable Boat (RIB) or a fully inflatable boat will probably provide the most effective cover. They are fast and manoeuvrable, have a low freeboard (important for ease of recovery of a person from the water), and have relatively low running costs.

Crew

Ideally there should be a crew of 3. This allows the helmsman to stay at the controls and have 2 crew available to assist a person aboard. Where possible the crew should be at the following levels of competency.

- Helmsman: ISA (Irish Sailing Association) Safety Boat or CFT (Irish Underwater Council) Dive Boat Cox level
- Crew 1: ISA Powerboat Level 2 (can take over driving if required)
- Crew 2: Qualified rescue lifeguard equipped with rescue tube and swim fins
- At least one of the crew should be qualified to operate VHF radio
- At least one of the crew should be a qualified in first aid.

Boat Equipment

Ideally, the safety boats should include the following equipment:

- Anchor, warp and chain
- Spare rope
- Oars or paddles
- Boat hook
- Fire extinguisher (for engine and fuel)
- Spare fuel if expected to be afloat for long periods
- Air horn
- Killcord, which must be worn by helmsman, and a spare killcord
- Personal floatation device for helm and crew (must be worn at all times)
- Spare personal floatation devices for persons brought aboard (legal requirement)
- Bailer or bucket
- VHF radio
- Torch (even if not intended to be out after dark, evenings get dark quickly)
- 2 orange smoke flares, if likely to be in fading light, add 2 red hand held
- First Aid kit, to include thermal protective aids
- Compass
- Personal protective clothing should be worn by all crew
- Emergency water / fruit juice
- Knife (may have to cut a person free if tangles in weed, nets, lines etc)
- Towels, hats, clothing for casualties

The boat equipment checklist in Appendix 3 should be copied to any boat being used in the event.

Risk Assessment

The risk assessment process can be divided into four parts:

- Identify the potential hazard or risk
- Assess the severity of such an event occurring
- Assess the likelihood of such an event occurring
- Put in place procedures to eliminate or minimise the risk of hazard

Any risk assessment and risk management should include the following areas:

- General Location – observations and local information
- Map or diagram of area outlining course, safety craft locations etc is useful
- Venue owner's permission – liabilities and responsibilities
- Fitness of area for purpose
- Entry points
- Exit points
- Alternative entry and exit points
- Depth of water
- Quality of water
- Water temperature
- Tidal conditions on the day
- Weather conditions on the day
- Sea state
- Times of scheduled high speed craft operating in the area (e.g. HSS)
- Proximity of swim area to other users (e.g. personal water craft, water skiers, sailing boats, etc.)
- Tripping or slipping hazards
- Safe spectator area
- Number of support craft (RIBs, canoes, boards) required
- Suitability of crews manning support craft – qualifications, experience, maturity
- Safe access for carrying equipment, launching support craft (manual handling)
- Availability of qualified first aiders
- Provision of suitable first aid kit / first aid centre for large events
- Suitable ambulance access
- Availability of reliable telecommunications and back up – location of public phone
- Means of accounting for competitors
- Levels of ability of competitors

Recommendations for Cancelling or Postponing an Event

The following is intended as a guideline and is not an exhaustive list of considerations, which may vary depending on the location of the event.

Persons required to make the decision to cancel or postpone

The Safety Officer, Race Organiser and Representative from the OSC together should make the decision to cancel or postpone the event in consultation with the senior safety boat helm present on the day. The decision should be based on the following:

Provision of safety cover

The minimum recommended number of safety boats for any event should be three. Where there are a large number of participants, the number required may be greater. The event should be cancelled or postponed where the minimum deemed suitable for the event is not available, or if the senior boat helmsman deems the operation or transport on the water of safety boats unsafe or inadvisable. In any case, the opinion of the senior safety boat helmsman should be sought before making any decision. In addition, provision of sufficient shore safety and first aid cover should be taken into account

Wind strength

Where the Meteorological Service has issued a Small Craft Warning (expected wind strength of Force 6 or above), then the event should be cancelled or postponed.

The direction of wind in relation to the event area will also have an effect. Generally, in a sheltered area, onshore winds will result in larger waves than offshore winds of the same strength. For this reason wave height should also be considered for wind strengths below Force 6.

Wave Height

Wave height will affect the visibility of a swimmer and as such is a safety consideration. The possibility of seeing a person in the water is greatly reduced where conditions are such that one can only see the person in the water half the time. Where the wave height is such that one is only likely to see a head above water for 50% or less of the time, then the event should be cancelled or postponed.

Visibility

It is important for swimmers and safety boat personnel to be able to see the whole of the course, therefore where visibility is less than the distance of the course, the event should be cancelled or postponed

Timing of decision

The timing of the decision will vary from event to event. In some cases it will not be possible to make the decision until arrival at the event location. At other times, for example where the weather forecast is such that the event should be cancelled, it may be possible to make the decision earlier.

Appendix 1 – Sample Event Planning Checklist

Event:	
Date:	

Event Organiser (Contact name):	
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Task	Yes	No	Comments
Venue owners permission			
Number of participants			Number:
Risk assessment completed			
Number of support craft required			Number:
Contact support craft providers			
Emergency Action Plan completed			
Safety Plan for the day completed			
Safety Briefing prepared			
Tidal information received			
Weather forecast received			
Irish Coast Guard informed			
Other local organisations informed if required (clubs etc so they can avoid swimming area)			

Appendix 2 – Sample Risk Assessment Form

Location:	
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Who is at Risk:	Participants, organisers, support crews, spectators, (list others):
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Location	Yes	No	Comments
Venue owner's permission			
Entry points inspected			
Exit points inspected			
Alternative entry and exit points identified and inspected			
Depth of water checked			Depth: M
Quality of water checked			
Tidal conditions on the day			Height of tide: Speed and direction:
Weather forecast received			
Tripping or slipping hazards			
Safe spectator area			

Support Services:	Yes	No	Comments
Number of support craft checked			No. of craft attending
Certified crew			
Boat checklist completed			

Emergencies:	Yes	No	Comments
First Aiders / First Aid centre			
Suitable ambulance access			
Provision to call emergency services			

Lifting	Yes	No	Comments
Safe access for carrying equipment, launching support craft			
Assistance available			

Sketch Map of Swim Area

Please draw a sketch map of the area in which the swim is to take place. Include entry and exit points, first aid stations, ambulance access, location of phones, direction of tide, wind direction (can be added on the day) and any other relevant details.

Sample Form

Appendix 3 – Sample Safety Boat Checklist

Boat Type: _____ Boat Provider: _____

Name of Insurer: _____

Insurance Certificate seen: Yes No

Crew Name:		Qualification (cert seen)
Helm:		
Crew 1:		
Crew 2:		

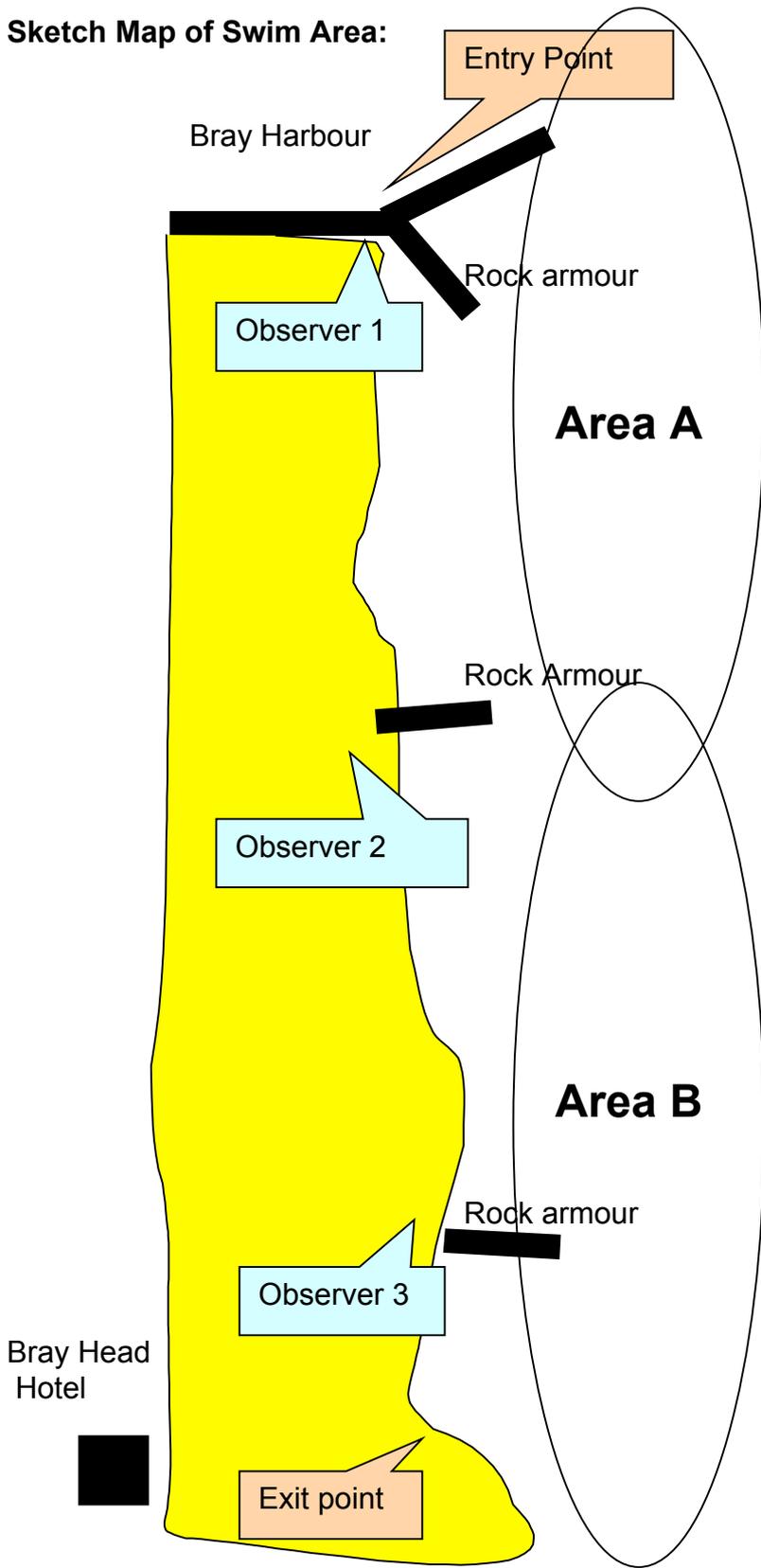
Equipment List:		
Anchor, warp and chain		
Spare rope		
Oars or paddles		
Boat hook		
Fire extinguisher		
Spare fuel if expected to be afloat for long periods		
Kill cord		
Air horn		
Lifejacket for helm and crew		
Spare lifejackets for persons brought aboard		
Bailer or bucket		
VHF radio		
Torch		
2 orange smoke flares, 2 red hand held (if required)		
First Aid kit, to include thermal protective aids		
Rescue throw line		
Compass		
Personal protective clothing		
Emergency water / fruit juice		
Knife		
Additional floatation devices to assist swimmers		
Fuel tanks full		
Oil checked		
Helm conducted pre-launch checks and reported back		

Sample Form

Appendix 4 – Sample Rescue Plan

Event:	Kilmartin Swim
Location of swim	Bray Harbour to Bray Head Hotel
Date	July 2002
Time	Ladies 7.00pm Men 8.00pm
Map of swim area	See attached
Time of HW	9.00pm
Time of LW	3.00pm
Position of Safety boats etc	See map
Position of shore observers	See map
Person in Charge of Entry Control	A N Nolan
Person in Charge of Exit Control	A N Smith
Communication	Shore radio Ch 2, Marine VHF Ch 73
End of swim tally of competitors	A N Murphy
Rescue 1	Boat in charge – Bray Sailing Club 1
Rescue 2	Bray Sailing Club 2 – patrol area A (see map)
Rescue 3	Bray Sailing Club 3 – patrol area B (see map)
Canoe 1	Sea Scout 1 – entry point and back markers
Canoe 2	Sea Scout 2 – lead swimmers
Canoe 3	Sea Scout 3 – middle swimming area
Paddler 1	RLSS 1 – entry point and back markers
Paddler 2	RLSS 2 – lead swimmers
Paddler 3	RLSS 3 – middle swimming area
Observer 1	Back of harbour wall
Observer 2	Band stand area
Observer 3	Bus terminus area
Recording of Retirals	A N O'Toole
Persons authorised to activate EAP	Safety Officer, Bray Sailing Club 1, Observer 1
Notify Irish Coast Guard at end of event	Safety Officer

Sketch Map of Swim Area:



Sample Map

Appendix 5 – Sample Emergency Action Plan

Incident	Location	Action Required	Personnel Required
Collapse case	Entry Point	<ul style="list-style-type: none"> • First Aid Intervention 	<ul style="list-style-type: none"> • Attending Ambulance crew
Fall resulting in injury / in water	Entry Point	<ul style="list-style-type: none"> • Remove from water • First Aid Intervention 	<ul style="list-style-type: none"> • Lifeguard team • Attending Ambulance crew
Spinal injury in water	Entry Point	<ul style="list-style-type: none"> • Stabilise • Secure • Remove from water 	<ul style="list-style-type: none"> • Full lifeguard team • Attending Ambulance crew
Collapse case	Mid swim area	<ul style="list-style-type: none"> • Remove from water • Provide first aid (ABC) • Bring ashore entry/exit point? • Pass to ambulance crew 	<ul style="list-style-type: none"> • Nearest Safety Boat • Nearest paddler • Attending ambulance crew
Severe fit	Mid swim area	<ul style="list-style-type: none"> • As for collapse 	<ul style="list-style-type: none"> • As for collapse
Poor visibility due to mist / fog / heavy rain	Mid swim area	<ul style="list-style-type: none"> • Postpone swimmer entry • Marshal all swimmers to shoreline • Parallel search off shoreline 	<ul style="list-style-type: none"> • Entry marshal • Rescue paddlers (surf skis and canoes) • Safety Boats
Collapse case	Exit Area	<ul style="list-style-type: none"> • As per entry area 	<ul style="list-style-type: none"> • As per entry area
Fall resulting in injury	Exit Area	<ul style="list-style-type: none"> • As per entry area 	<ul style="list-style-type: none"> • As per entry area
Spinal injury	Exit Area	<ul style="list-style-type: none"> • As per entry area 	<ul style="list-style-type: none"> • As per entry area
Sever laceration of feet	Exit Area	<ul style="list-style-type: none"> • Remove from water • Provide first aid 	<ul style="list-style-type: none"> • Lifeguard team • Attending ambulance crew

Unaccounted Swimmer	Exit Area	<ul style="list-style-type: none"> • Advise Coast Guard • Advise Safety Boat in Charge • Safety Boats carry out search pattern • Shoreline Search • Defer control to on-scene commander if Emergency Services attend incident 	<ul style="list-style-type: none"> • Safety Officer • Safety Boats • Senior Safety Boat to decide most appropriate search pattern • Shoreline Observers • Emergency Services (RNLI, Coast Guard, etc)
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Note:

1. This is a notional outline emergency action plan and is intended for guidance in drafting a dedicated emergency action plan for a specific event.
2. Where reference is made above to a paddler, this refers to surf ski or canoe paddlers.

Considerations:

The success of any emergency action plan depends on pre-planning and forethought. For the plan to be effective, all parties involved in it's implementation and operation must be fully aware of their role and the role of every other person involved. All those involved must act and communicate in a calm and controlled manner. "Blue light syndrome" is common amongst inexperienced safety crews and must be avoided at all cost.