

Swimming Risk Analysis

ASSESSING THE LEVEL OF RISK

Once risks are identified, they are evaluated on a 2 dimensional matrix using a qualitative rating of the likelihood of the event occurring and the scale of the possible consequences. When risks have been identified, they are analysed by combining the consequences and likelihood to produce a level of risk. This form of evaluation provides a good graphical representation of how serious the risk is or where it lies within a group of risks. The risk analysis provides information critical to determining what risks need to be treated and what risks are accepted.

The following matrices have been utilised for the assessment process;

Table 1. Primary Risk Category. (the primary risk is the most immediate or likely risk). Risks may technically fall under several categories eg. A student who has their leg trapped under a falling mast on a sailboard may suffer a physical injury (primary Risk), such as a broken leg, however there may be legal action at some point in the future (secondary risk).

Primary Risk Category	Brief Risk Description
Physical	Injury risk to person - including <ul style="list-style-type: none"> ➤ Participants ➤ Instructors ➤ Community members
Property and Equipment	Damage risk to Swimming and Aquatics centre and/or community property/equipment.
Environmental	Includes risk factors that may impact upon the activity. <ul style="list-style-type: none"> ➤ Climatic eg. Thunder and lightening, strong winds. ➤ Marine eg. Tidal or current flow. ➤ terrain
Medical and Disease	Includes risk factors associated with: <ul style="list-style-type: none"> ➤ Pre-existing medical condition eg. Epilepsy, asthma. ➤ Loss of required medication eg. Asthma inhaler. ➤ Disease transmission. From person or environment eg. Influenza.
Psychological	Risk associated with trauma or fear/stress.
Legal, Moral and Ethical	Risk associated with: <ul style="list-style-type: none"> ➤ Legal action and/or litigation. ➤ Breach of legal obligations. ➤ Damage to DECD reputation. ➤ Criminal activity.

Table 2: Likelihood Matrix

Level	Descriptor	More Detail
A	Almost certain	Will occur. Expect frequent/regular occurrences.
B	Likely	The event will probably occur more than once
C	Possible	The event might occur at some time
D	Unlikely	The event is not expected to occur
E	Rare	The event may occur only in highly exceptional circumstances

Table 3: Consequence Matrix – relate to the **most probable** outcome. Eg. A fall from a windsurfer is most likely to result in no or minimal injury and therefore be rated as 1-2 ie. insignificant/minor.

Level	Descriptor	More Detail	Injuries	Potential Financial Impact	Potential Operational Impact
1	Insignificant	Low Impact, no injuries/damage, low profile.	None	<\$100	Student still able to participate. Little impact <30min
2	Minor	Minor Injuries/damage sustained. Low impact, possible public embarrassment.	First Aid Treatment	<\$1-1,000	Student able to participate after treatment. Low impact <30min
3	Moderate	Significant injuries/damage sustained. Public embarrassment possible.	Medical Assistance Required	<\$100-\$50,000	Student unable to continue with activity. Instructor impact whilst treatment given.
4	Major	Extensive injuries/damage sustained. Loss of instructional capabilities, public embarrassment, 3 rd party action, high news impact	Extensive Injuries. Medical Treatment	<\$50-\$150,000	Loss of instructor/s whilst treatment/medical aid given. Extended rehabilitation of injury/damage repair.
5	Catastrophic	Public embarrassment, 3 rd party action, high news and media impact.	Deaths	+\$150,000	Loss of instructor/s, closure of centre whilst investigation conducted.

Table 4: Level of Risk – consideration of both likelihood and consequence.

Consequence						
Likelihood		1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
	A Almost Certain	High	High	Extreme	Extreme	Extreme
	B Likely	Medium	High	High	Extreme	Extreme
	C Possible	Low	Medium	High	Extreme	Extreme
	D Unlikely	Low	Low	Medium	High	Extreme
	E Rare	Low	Low	Low	High	High

Note: Following the identification and implementation of risk management control measures it is assumed that all Risk Descriptions will be reconsidered as having a “low risk” factor.

Table 5. Risk Priority – an indication of how quickly/frequently an identified risk needs to be addressed and/or monitored.

Rating	Description
Low	Low priority.
Medium	Medium priority.
High	High Priority. Requires immediate action to redress risk. Additionally, risk should be closely monitored to ensure management strategies to reduce risk are effective.

Table 4 : Risk Register/Risk Management

Compiled by:.....

Date:.....

Reviewed by:..... Date:.....

Function/Activity: **Water Safety (Swimming)**

Activity Description: Water Safety (swimming) instruction is conducted on the beach and in the sea at Port Noarlunga. Students will receive instruction commensurate with program length and student age/maturity on the following: Personal equipment: Wetsuit/PFD/ hat. Weather/wind and wave conditions and direction. Information on how to stay safe in, on and around water. Instruction and practice of safety strokes (elementary backstroke and sidestroke.) and how to stay afloat in different situations. Students will be shown how to correctly fit a personal flotation and will practice swimming wearing a pfd. Students will take part in discussions concerning different scenarios and how to stay safe in different situations. Students will use a variety of equipment – body boards, small surf boards, kick boards, rescue tubes, noodles, snorkels

General Safety consideration: A powered rescue craft will be accessible at all times when swimming is happening at Port Noarlunga. Known hazards will be identified to all participants. Students will be required to wear wetsuits, hat (when walking to the swimming site) and sunscreen. All instructional staff will hold a current Auzzswim qualification. A knowledge and understanding by instructional staff of local water conditions (such as tidal variations, current flow), and climatic conditions specific to each location (such as strong off-shore winds). A knowledge and awareness by instructional staff of additional local hazards such as general community water craft activity, the presence of marine hazards and under water and fixed structures. All instructional staff and students will be aware of the centres emergency procedure and protocols. . All student participants will have completed a detailed medical form to be considered and checked by staff prior to the commencement of any activity. All student participants with pre-existing medical conditions (such as asthma) will carry or have available their medication at all times. Staff and participating students must be clearly and easily identifiable.

Primary Risk Category (Refer Table 1.)	Risk description. What and how can it happen	Likelihood (Refer Table 2)	Consequence (Refer Table 3)	Level of Risk (Refer Table 4)	Management. Including existing Control measures to eliminate or reduce the risk. Note: Once the risk management measures listed below are followed all risks described in column 2 will be reconsidered as having a Low – “Level of Risk”	Priority
1. Physical	Injury due to slip fall at beach entry/exit point to the water. <ul style="list-style-type: none"> Cuts and abrasions 	C	2	Medium	<ul style="list-style-type: none"> Entry/exit points carefully considered with safe alternative options identified. Entry/exit from rocks identified as potentially very dangerous and not attempted. Instructor to enter first and clearly demonstrate safe entry technique/route. 	Medium
2. Physical	Hypothermia/Hyperthermia	C	2	Medium	<ul style="list-style-type: none"> Instructional staff to be aware of weather forecast for the day and plan accordingly. Students to dress appropriate to the conditions and season. Cold Conditions: Wetsuits preferable, regular breaks to warm up. Hot conditions: students to wear long sleeved shirts, hats and sunscreen applied at regular intervals. Regular hydration breaks. 	Medium

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3. Physical, psychological	Student swallows water causing panic.	C	2	Medium	<ul style="list-style-type: none"> Instructors closely monitored to identify students “in difficulty”. Assist student from the water. Calm and reassure and allow student to recover on shore. Closely monitor student for signs of difficulty breathing or evidence that water may have entered the lungs. If this is suspected urgent medical support required. If fully recovered and no suspicion of water entering the lungs, encourage trying again with close supervision to overcome panic. 	Medium
4. Property and Equipment, Physical	Damage to equipment through incorrect use. Poor/inappropriate student behaviour. <ul style="list-style-type: none"> Wetsuits Boards PFD’s Snorkels 	C	2	Medium	<ul style="list-style-type: none"> Correct use of all equipment is demonstrated and reinforced through supervision. Correct fit of all personal equipment (eg wetsuits) to avoid “over stretching” or damage. Student behaviour expectations and consequences are clearly established prior to the commencement of the activity and reinforced throughout instruction. Poor or unsafe student behaviour – student returned to shore for a period of time as determined by the instructor. Referral to school supervising teacher if required for further discipline. 	High
5. Physical	Beach site access: Injury to feet whilst walking to swimming site from objects such as glass, splinters, shells, rocks or hot pavement.	C	2	Medium	<ul style="list-style-type: none"> Students to wear footwear as required whilst moving to the beach site if a potentially hazardous route is involved Injuries sustained such as splinters and minor cuts, are treated promptly to reduce the likelihood of infection. 	Medium
6. Physical	Student suffers sunburn. <ul style="list-style-type: none"> When not in the water 	B	2	High	<ul style="list-style-type: none"> Students briefed at the commencement of the session re. Sunsmart SPF 30+ is made available by both the Aquatics Centre and the school, with regular breaks provided to reapply when not in the water. Students to wear shirts (preferably long sleeved) and hats when walking a significant distance to the surf beach/site. Rashie vests to be worn if students are not wearing wetsuits. 	Medium

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7. Environmental	Students unable to hear instruction/commands due to wind direction, sound of the surf or distance.	B	1	Medium	<ul style="list-style-type: none"> Students briefed in the initial safety address regarding appropriate signalling method prior to entering the water. This may include the use of a whistle, flag or arm signals/visual commands. An emergency evacuation procedure and signal must also be established at this safety address. Students encouraged to look to the instructor regularly to receive feedback relating to either performance or safety. The use of boundary indicators on the beach (such as beach flags or markers) to ensure/assist in keeping the group in a manageable area to facilitate better communication. Instructors to stay as close as practical to the students at all times to assist with instruction and on-water communication. 	Medium
8. Environmental	Thunderstorm/lightning.	D	4	High	<ul style="list-style-type: none"> Instructors to monitor weather forecasts for thunderstorm/lightning and remain vigilant for rapidly deteriorating weather or approaching storms. In the event of seeing lightning apply the “International 30/30 rule”. That is; if the time between “flash and bang” is less than 30 seconds, immediately exit the water and seek safe shelter. This should be a solid structure, building or hard top motor vehicle. Do not allow students to shelter under large single trees or unsubstantial buildings such as tents or shelters. If caught on an open beach, seek a depression or low ground, crouch down with feet together and cover ears. Remove any metal objects such as jewellery. Avoid using apparatus such as telephones if possible. In an emergency keep calls very brief. Once the storm has passed wait at least 30 minutes from the last thunder clap before re-entering the water or continuing the activity. 	High
9. Physical Psychological	Caught in a rip or unable to get back to shore.	C	2	Medium	<ul style="list-style-type: none"> Beach site is assessed by staff prior to students entering the water. Students briefed prior to entering the water as to how to identify a rip and the safest response to this situation. Remain calm and swim parallel to the shore until out of the rip and then swim in. Instructor to assist student in difficulty. 	Medium

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10. Physical	Student suffers or is effected by exhaustion/fatigue/soft tissue injury eg. Muscle strain or cramp	B	2	High	<ul style="list-style-type: none"> All instructional staff to continuously monitor students and be alert for students showing signs of fatigue, minor injury or cramp. Instructors create frequent rest/recovery breaks commensurate with the age/skill level of the group. Students instructed as to the most appropriate method of signalling for assistance if required. A rescue board is positioned on the beach to enable instructors to assist a student in difficulty. Affected student to be promptly returned to shore for rest/recovery and/or further treatment. 	Medium
11. Legal, moral, ethical	“Stranger danger”.	D	3	Medium	<ul style="list-style-type: none"> If using public/community change rooms or toilets, primary age students who wish to go to the toilet should be accompanied by a teacher/instructor if facilities are out of line of sight of instructors (or with a “buddy” for secondary age students). Regular scheduled breaks should be structured into all sessions to facilitate safer group access to toilets. Staff to remain vigilant for people loitering in the area, particularly around public/community change rooms/toilets, and if appropriate contact police or Centre I/C for assistance. Photographs of students only taken if permission from parents obtained. 	High
12. Property and Equipment	Theft of student/staff personal items whilst surfing.	D	1	Low	<ul style="list-style-type: none"> Students encouraged to leave valuable items at home or back at the aquatics centre. Items such as towels, shoes, sunglasses should be left in a central location on the beach where on-shore instructors can monitor them. 	Medium
13. Environmental/psychological	Student goes missing	D	3	Medium	<ul style="list-style-type: none"> Instructors conduct regular checks and head counts Students aware of instructional area boundaries and procedure if outside of this area 	Medium

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14. Physical Psychological	Marine creature danger. <ul style="list-style-type: none"> Sharks Jelly fish stingrays 	D	3	Medium	<ul style="list-style-type: none"> All Centres should have a carefully considered and documented shark sighting protocol that is known and reviewed by all instructional staff. Instructors to remain vigilant for marine creature hazards and evacuate students from the surf at the first sign of danger. (If a possible shark sighting occurs it may well be appropriate to avoid using the word “shark” to prevent student panic unless a positive/confirmed sighting has been made and danger is extremely close. Dolphin sightings are common along our coast!). Students should not re-enter the water until instructors have declared the beach to be safe. If a confirmed sighting of a large shark it would be prudent to cancel the activity for the day. All students and staff are aware of the Emergency evacuation signal (whistle/hand signals) and the procedure to exit the water (including assembly/meeting point) as quickly and safely as possible. If jellyfish are present in large numbers students should be removed from the water. If small numbers, monitor students for signs of stings and treat accordingly. Wet suits should be mandatory for all forms of water safety to help reduce stings. If a stingray is observed in the area (or immediately adjacent) students should be removed from the water until it has moved away. 	High
15. Environmental	Storm/wind squall	C	3	High	<ul style="list-style-type: none"> Instructional staff to be aware of daily forecast and the likelihood or probability of such an event and modify/cancel on-water activities if necessary If necessary limit number of students on the water At the first sign of rapidly deteriorating weather instructors seek immediate access to appropriate shelter for their group. (This may not necessarily be back at the “base” for that aquatics Centre) 	Medium

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16. Environmental/ Disease transmission	Water contamination eg. due to algal bloom, storm water run-off	D	2	Low	<ul style="list-style-type: none"> Advice is sought from appropriate authorities re. safety. Eg SA Water, Marine and Harbours. If level of contamination is high/dangerous, then on-water activities should be cancelled If low levels of contamination, students are warned to avoid unnecessary capsize, or swallowing of any water if capsize occurs 	High
17. Medical	Student suffers from a medical condition, (pre-existing eg. Asthma attack or developed eg. Nausea, sea sickness) whilst conducting an activity on the water.	B	3	High	<ul style="list-style-type: none"> No student is permitted to be involved in an activity unless a medical form has been completed and sighted by centre staff. All instructional staff is aware of the location of completed medical forms for their group/school. Medication for pre-existing conditions is carried with/by the student in a water-proof container. Instructional staff carry (or have ready access to) a suitably equipped first aid kit, including spare asthma inhaler. Students with known medical conditions are more closely monitored by both Aquatics Centre staff and supervising school staff. Students diagnosed with Epilepsy must have 1:1 supervision. Appropriate first aid is sought as a matter of priority once a medical emergency has been identified. Rescue craft used if a rapid transfer is required. Where an activity is conducted some distance from the main, 2-way radio/mobile telephone contact be maintained with the aquatics centre/I/C or nominee). 	High
18. Physical	Instructor fatigue. <ul style="list-style-type: none"> Physical or voice fatigue 	C	2	Medium	<ul style="list-style-type: none"> Instructors encouraged to stay hydrated so their vocal chords are not strained and develop an effective method of hand signals to communicate with students where possible to avoid excessive use of their voice. Instructors to keep students close to them when talking about features on the reef so as to maximise normal voice use and avoid having to strain the vocal chords 	High
19. Physical	Twisted ankle in shallows	C	3	High	<ul style="list-style-type: none"> Instruct students of safe water entry procedures including walk only Advise students of possible hazard from holes and care required when walking in shallow water 	High
20. Environmental	Sudden drop in air temperature	A	2	Medium	<ul style="list-style-type: none"> Modify/Cancel session if weather conditions deteriorate Students to wear appropriate clothing for conditions 	Medium

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21. Physical Psychological	Harassment during the lesson period	D	4	High	<ul style="list-style-type: none"> SA child protection policy enforced Children visit the toilet with a buddy or known adult If any touch is required it must be explained first and student’s consent obtained. 	High
22. Psychological	Loss of group control	B	2	High	<ul style="list-style-type: none"> Class ration kept within guidelines Students provided with immediate feedback, support and encouragement Instructor attempt to ensure all group members are experiencing some success and enjoyment 	Medium
23. Legal	Unqualified Instructor	E	4	High	<ul style="list-style-type: none"> Only instructors with a current SA Flat Water qualification together with current certificates in first aid, rescue, resuscitation and police check are employed 	High
24. Psychological	Verbal abuse by individual	B	3	High	<ul style="list-style-type: none"> Everyone to move away from individual being abusive Class to stay together as one group IC informed Emergency services contacted if necessary 	Medium
25. Physical/ Legal	Problems arising from intoxication	D	4	High	<ul style="list-style-type: none"> Ensure department’s no alcohol and drug policy is enforced before the start of each session Exclude anyone under the influence of alcohol or drugs 	Medium
26. Physical/ Legal	Physical abuse by individual	E	4	High	<ul style="list-style-type: none"> Emergency procedures initiated to keep everyone safe Emergency services contacted if needed 	High