

Risk Register & Hazard ID | 2024

Mountains to Sea Conservation Trust | Marine Risk Assessment Form - Part 2

Reviewed by H & S representatives - approved by Poutokomanawa/Co-director (marine lead). Next review due July 2025.

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Risk Matrix			IMPACT				
			Insignificant	Minor	Medium	High	Extreme
			1	2	3	4	5
PROBABILITY	Rare	1	Low	Low	Low	Moderate	Moderate
	Unlikely	2	Low	Low	Moderate	High	High
	Possible	3	Low	Moderate	High	High	Extreme
	Likely	4	Low	Moderate	High	Extreme	Extreme
	Almost certain	5	Moderate	High	High	Extreme	Extreme

Marine (EMR)

Risk Index: L = Low, M = Moderate, H = High, E = Extreme

Hazard/Risk A situation or thing with the potential to cause death, injury or illness	Potential Harm	Risk Rating How serious is this?	Controls How can it be prevented? First try to eliminate (e), then minimise (m) the risk	Residual risk after controls	Responsibility of EMR	Responsibility of School/group
People						
Drowning	Death	E	m) Observer (check in and out) based on shore m) Pre-existing medical conditions known m) Adequate supervisions and ratios m) Clear briefing to participants and supervisors	M	Snorkel leaders to keep control of the entire group during snorkel	Check in and out observer based on shore. Comply with EMR instructors directions while in water
Existing medical conditions	Incident, injury, death	H	m) School collects medical conditions and informs EMR snorkel leader m) Collect supervisor medical conditions via supervisor form m) Precautions taken for pre-existing medical conditions such as increased supervision, boundary restrictions and specialised equipment such as personal floatation devices.	M	Pre-site assessment and supervisor forms complete Initiate any precautions required Event registration forms	Collect medical conditions – disclose to EMR

Separation (missing person)	Incident, injury, death	H	m) Boundaries, snorkel route and entry and exit points made clear. m) Snorkel leader to keep control of the group by using a dive flag for participants to follow and whistle to keep groups attention m) Snorkel leader may identify a suitable supervisor/assistant to follow at the back of the group. m) Students to stay in immediate proximity of designated adult buddy (one arm's length away). m) Supervisors keep head count of buddy group m) Parents, supervisors and teachers to comply with instructors' directions while in water. Adult observer based on shore, ready to attend to any emergencies, with first aid, emergency plan, medical records, medication and cell phone (or location known of nearest land line). m) Number check before and after snorkel via check in & out form m) Snorkel leader will emphasise that groups must stay with the main group and FOLLOW snorkel leaders	M	Clear boundaries and control of the group Missing person procedure	Cooperate with any policies or procedures of EMR Check in and out form complete
Cardiac Arrest	Incident, injury, death	H	m) Medical conditions known m) Screening participants in water	M	Snorkel leaders to keep control of the entire group during snorkel	Medical conditions declared/discussed

			m) Emergency preparedness and location of nearest defibrillator			
Inexperience (including non-swimmers)	Incident, injury, death	H	m) Experience, skills and training of snorkel leader. m) General swimming ability of students checked via pre-site assessment and briefings m) Adult and supervisors medical conditions checked via supervisor forms m) Non-swimmers identified to snorkel leader m) Wetsuit worn m) Shallow water assessment m) Use of body board for floatation m) Adjustments made to ratio, limiting depth and distance, using snorkel buoyancy vest	L	EMR uses experience and qualified snorkel leaders. Supervisor forms	Must advise/identify non-swimmers Appropriate supervisors provided by school
Panic, exhaustion, lack of confidence	Emotional trauma Incident, injury, death	H	m) No weight belts unless training given or student supervised by their parent m) Ask about panic in pre-site assessment m) One up one down rule to ensure supervision m) Snorkelers advised to hold up their hand on ascent to the surface	L	Snorkel leaders to keep control of the entire group during snorkel	Supervisors to notify snorkel leader if any issues Stay within audio and visual distance of the EMR snorkel leader

			m) Rest on board m) Re-assurance from snorkel leader and/or supervisor			
Heat exhaustion/ hyperthermia/dehydration	Illness	H	m) Advised to get out of the wetsuit after snorkelling m) Participants advised to have own drinking water m) Avoid direct sun while in wetsuit m) Advise schools to bring gazebo for sun protection if possible	L	Adequate briefing. Care of self	- Students encouraged to drink water - Minimise sun exposure - Have appropriate warm clothing
Over weighted snorkeler	Exhaustion, incident	H	m) No weight belts worn for year 8 and below unless specific training given or belt belongs to participant and they supervised by their parent m) Weight belt removed if struggling to reach surface m) Buoyancy checked	L	Check equipment fit for purpose	Comply with EMR instructors directions while in water
Advanced snorkelling	Drowning, death, secondary drowning	H	m) Led by EMR snorkel leader m) Buddy pairs system m) Correct weighting and equipment m) 3 times longer on surface than the dive m) 1 up 1 down rule	L	Snorkel leaders to keep control of the entire group during snorkel	Comply with EMR instructors directions while in water

			m) Rescue training for all participants			
Loss of motor control	Various	H	m) Buddy and ratio system m) EMR snorkel leader adequately trained	L	Initiate rescue scenario Tap, blow, talk	Comply with EMR instructors directions while in water
Inadequate supervision (ratio's)	Missing person Minor incident	M	m) Students recommended above age of five (1:1 ratio recommended for students age five) m) Adequate supervision ensured by adult 'supervisors' provided by school or EMR. Ratio for snorkelling 1:2 (1:4 max) ratio for year 8 and below (or 1:4 (1:6 max) for year 9 and above). Maximum of 24 participants m) Stay close – remain within 50m and within audio and visual distance of the EMR snorkel leader to communicate any hazards, minor incident requiring first aid or medical or more serious incident	L	Ensure supervision adhered to Control of group in water	Provide suitable supervisors Comply with EMR instructors directions while in water
Inappropriate behavior or fitness	Incident or Injury	M	m) Clear discipline guidelines given to students and adults before snorkel and identification of potential hazards, as part of the snorkel briefing m) The role of adult 'supervisors' is to assist and supervise the students in-water and are expected to follow instructions, be confident swimmers, fit and healthy and free from the influence of drugs or alcohol	L	Conduct a clear briefing on expectations Pre-site assessment forms to capture behaviour issues	Identify and discuss management for behaviour issues and provide appropriate support for students with special needs Control behaviour

			m) Student behaviour issues discussed via pre-site assessment m) Screening participants and supervisors in shallow water			
Shallow water blackout	Injury, incident, death	M	m) No hyperventilating m) One up one down rule to ensure supervision m) Encourage relaxed breathing and time on surface m) Led by EMR snorkel leader m) Buddy pairs system m) Correct weighting and equipment m) 3 times longer on surface than the dive m) 1 up 1 down rule m) Rescue training for all participants	L	Snorkel leaders to keep control of the entire group during snorkel	Supervisors to notify snorkel leader if any issues Stay within audio and visual distance of the EMR snorkel leader Comply with EMR instructors directions while in water
Unresponsive snorkeller (due to a medical event or incident)	Incident, injury, death	M	m) Achieve positive buoyancy - refer to emergency preparedness and response	L	Snorkel leaders to keep control of the entire group during snorkel 2IC identified	Supervisors to notify snorkel leader
Seasickness/motion sickness	Illness	M	e) Don't go on the boat	L	Charter to provide instructions	Advise participants of risk of seasickness

			m) Seasick pills included as part of first aid kit (charter boat trips only) – stay away from fumes, look to horizon m) avoid safety kayak role			
Lack of communication	Incident, injury, death	M	m) Communication device on beach at all times m) Non reception areas noted via pre-site assessment m) Language barriers identified m) VHF radio for known non reception areas	L	Check cell phone reception and understanding of instructions	Advise of non-English speaking participants
Impairment due to drugs and alcohol	Incident, injury	M	m) Refer to our drugs and alcohol policy m) Declaration and monitoring of staff and participants	L	Adhere to policy	Adhere to policy
Duck shooting near a kayak/SUP event	Incident/Death	M	m) Warn duck shooters of event e) Avoid duck shooting season	L	Event organiser to be aware of duck shooting season	
Low energy levels	Various	M	m) Team to take adequate breaks for snacks	L	Adequate briefing Care of self	Teachers to ensure school groups have had snack etc
Swimming around pontoons	Various	M	m) Adequate supervision	L	No swimming in EMR equipment	School to manage and supervise any swimming beyond snorkelling activity

Cramp	Injury	L	m) Rapid clenching of fist is the signal. Relieved by stretching or massaging muscle. m) Re-assurance from snorkel leader and/or supervisor m) Supervisor may seek support and notify snorkel leader	L	Snorkel leaders to keep control of the entire group during snorkel	Supervisors to notify snorkel leader if any issues Stay within audio and visual distance of the EMR snorkel leader
Barotrauma	Injury	L	m) One up one down rule to ensure supervision m) Advice about equalisation m) Snorkelling in shallow water	L	Snorkel leaders to keep control of the entire group during snorkel	Supervisors to notify snorkel leader if any issues Stay within audio and visual distance of the EMR snorkel leader
Collision with another snorkeler	Injury	L	m) One up one down rule to ensure supervision m) Snorkelers advised to hold up their hand on ascent to the surface	L	Snorkel leaders to keep control of the entire group during snorkel	Supervisors to notify snorkel leader if any issues Stay within audio and visual distance of the EMR snorkel leader
Entrapment	Incident, injury, death	L	m) One up one down rule m) Snorkel leaders to wear weight belt to allow them to assist with entrapment should it ever occur m) No entering small overhead environments	L	Wear weight belt Knife carried by EMR snorkel leader	Follow one up one down rule

Disorderly people	Incident	L	m) Refer to difficult people policy	L	Snorkel leaders to be aware of other users in area	
Bullying behaviour	Incident	L	m) Refer to Child Protection Policy	L	Commitment to ensure we provide an experience free from bullying and harassment.	School to manage behaviour
Coordinators not having updated versions of SOP and forms.	Inadequate knowledge of best practice	L	m) Updates controlled by Poutokomanawa (marine lead) m) Whenever updates are made the PDF version on the Google Drive and websites to be updated	L	Familiarise yourself with most recent SOP version number	Comply with any instructions from MTSCCT
Afraid of the dark (night time events)	Emotional trauma Incident, injury	L	m) Brief participants about expectations of the night event	L	Adequate briefing	Participants to comply with instructions from event leaders
Communication between staff and participants, kids translating for parents	Misunderstanding	L	m)check for understanding of safety information m)mandarin infographics	L	Check understanding during briefing	Comply with any instructions
Participants leaving events without signing out or telling anyone	Misunderstanding	L	m)robust check in and out procedures	L	Make clear in briefing	Comply with any instructions
Retrieving large heavy items	Injury	L	m)adequate support to lift item m)retrieve at later daye	L	Instructions to prevent injury	Comply with instructions
Overlapping duties of care	Misunderstanding	L	m)signed and documented agreements m) briefing on day	L	Make clear in briefing	Comply with any instructions

Environment (including Natural Hazards)

Cold water/ exposure/ temperature	Hypothermia	E	m) Weather forecasts used to establish weather conditions before activity and pre-site assessment on the day m) Participants advised to bring warm clothing for after snorkel m) Brief participants on the danger of hypothermia and assure that it is OK to get out if shivering or tired (your snorkel buddy and adult buddy must accompany you back to shore) m) Appropriate wetsuits worn and duration in water for location	H	Provides adequate wetsuit protection for conditions Keep watch of the entire group during snorkel	Supervisors check their buddy group
Bee/wasp sting	Allergic reaction or anaphylaxis	E	m) Participants with anaphylaxis identified via pre-site assessment	M	Identified participants with anaphylaxis	School ensures has medication and medical action plans
Boats (propellers)	Injury or death from being hit by boat or propellers	E	m) Avoid heavy boat traffic areas m) Use of dive flag and float m) Remain within 50m and within audio and visual distance of the EMR snorkel leader, be alert for whistle blasts m) 1 whistle blast for groups attention m) Group to stay close together giving boats easy passage through	M	Tows dive flag	Comply with EMR instructions in water

			m) Bright body boards will help boats identify snorkelers m) Stay clear of glass bottom boat motor (at Leigh Marine Reserve) or any boat motor.			
Weather conditions: (storm) High winds, extreme hot and cold weather, lightning strikes, heavy rainfall, hailstorm, thunderstorm.	Sunburn, exposure, hypothermia, incident, injury	H	m) Up to date weather forecast, pre-site assessment. m) Sensible assessment of environmental conditions. m) Safe location of entry and exit points, depending on conditions m) Wetsuits worn m) Sunscreen available. e) Cancel or move activity m) End activity early m) Evacuate to safe place if visible/audible signs of electrical storm, or storm cells within 30km on radar m) If caught in an unexpected thunderstorm - prompt immediate calm evacuation from water	M	Check the weather forecast. Care of self Pre-site assessment complete Continued observation of weather - keep watch for storms Sensible weather assessment	Communication with School/group about weather call. School to provide sunscreen to participants Comply with EMR instructions
Fire	Incident, injury		m) If inside, smoke alarms alert group to danger m) Follow pre-discussed evacuation plans and evacuate to designated meeting place		Do not take risks. Raise the alarm and move out of the area. Calmly organise group	On land – activity leader to take charge

			m) If outside, move away from fire to a safe location m) Wait for further instructions m) In the event of fire in the outdoors call 111 or the Department of Conservation, depending on location. In the event of very small fires, using buckets of water may be appropriate, but personal safety and that of any participants is paramount.			
Earthquake	Incident, injury	H	m) DROP, COVER, HOLD m) If outdoors, take no more than three steps towards a safe, stable place, if possible away from trees etc. m) If indoors, take no more than three steps to a safe stable place, if possible away from windows and heavy items m) Wait until the shaking stops before moving and be prepared for aftershocks m) If the earthquake was long (more than one minute) or strong (hard to stand up) and you are in a tsunami zone, go immediately inland or to higher ground, out of the tsunami zone, and stay there until the All Clear is given m) Advise emergency services of your situation and location if you need assistance. e) Cancel activity if earthquake in the area	H	Calmly organise group	On land – activity leader to take charge
Flooding (including flash flood)	Incident, injury	H	e) Cancel or move activity m) Assess for risk of flash flooding	M	Site specific RAF Pre-site assessment	Comply with EMR instructions in water

Impermeable surfaces in cities can also cause flash flooding during heavy rainfall events			m) Weather checks looking at the rain in the upper catchment not just near the site, rain last 30 days/ last 48 hours m) Safe close evac zone			
Current/water/tidal movement/chop (including waves, tides, wind and wake)	Participants swept to sea Incident Injury	H	m) Up to date weather forecast, pre-site visit and on site assessment m) Identification of potential hazards (waves, rocks, current etc.) m) Safe location of entry and exit points and boundaries depending on conditions m) Snorkel site and route defined by land marks and distances from shore m) Use of EMR floatation boards m) Marker buoys may also be used at some sites m) Additional procedures such as throw lines and/or support vessels may be suitable for some sites m) Increased briefing and expectations.	M	Check tides and conditions suitable for site	Comply with EMR instructors
Infectious disease/flu/gastro	Illness	H	m) Refer to sanitisation policy m) Team have BU team members	M	Follow sanitisation procedures Halt activity if safety compromised	Work together to implement plan
Water Surge or Tsunami Tidal surge, rogue waves	Incident, injury, death	H	e) Cancel or move activity e) Advance warning of a tsunami	H	Tsunami warning check	Comply with EMR instructions in water

and tsunami, including tsunami and seiche on lakes or underground waters.			e) No snorkelling if there is a confirmed warning for the area m) Be alert for 1 blast of whistle for your attention (3 blasts for emergency) in the event of unforeseen dangers calmly organise evacuation to nearest safe landing point or re-group and make way back to assemble on shore (no one returns alone) m) Advise emergency services of your situation and location whenever this is practicable. If it is a local tsunami warning, go immediately inland or to higher ground Stay there until official 'All Clear' has been given <i>follow all advisories on the Civil defence website https://www.civildefence.govt.nz/. Coordinators leading in water snorkelling must have a heightened awareness following a tsunami or tsunami warning with regards to water movement. Part 1 RAF must consider Tsunami zones for site https://getready.govt.nz/emergency/tsunami/tsunami-evacuation-zones</i>		Have a heightened awareness of water movement and surges following a Tsunami warning/event	
Hazardous marine life –stingrays (can be flighty at night)	Puncture wounds, injury	H	m) Snorkelers advised to snorkel around stingrays and not over top in less than 2 metres of water Refer to snorkel guideline in SOP manual for treatment procedure	L	Brief on hazard - note more active at night and more unpredictable at night	Comply with EMR instructions in water

			m)monitor behaviour in shallows			
Landslip A moving mass of debris, loose mud, sand, soil, rock, water and air that travels down a slope under the influence of gravity.	Incident, injury, death	M	m) During the snorkel the EMR leader may continually identify and manage hazards, be alert for 1 blast of whistle for your attention, in the event of unforeseen dangers (e.g. marine life or conditions change, EMR leader to sound 3 whistle blasts and calmly organise evacuation to nearest safe landing point or re-group and make way back to assemble on shore (no one returns alone)	L	Continually identify and manage hazards	Comply with EMR instructors directions while in water
Hazardous marine life - sharks	Bleeding, shock, death	M	m) No killing of marine life during EMR snorkels m) Snorkel locations chosen for suitability Any shark larger than 1.8 m (about the size of a human) should be considered potentially dangerous, any observation of any shark that size should prompt an orderly immediate evacuation of the water, as per EMR evacuation protocol.	L	Calmly organise group.	Comply with EMR instructors
Hazardous marine life – orca	Incident	M	m) Calmly organise for group to come together and allow mammal passage, if deemed necessary, organise evacuation to the nearest safe landing point	L	Calmly organise group	Comply with EMR instructors
Hazardous marine life –seals	Incident	M	m) If a seal approaches you in water, avoid looking at it in the eye and move slowly away. If deemed necessary, organise evacuation to the nearest safe	L	Calmly organise group	Comply with EMR instructors

			landing point. Don't gather together or be aggressive			
Hazardous marine life – other (jellyfish, oysters, barnacles, urchins (kina spikes), scorpion fish, sea lice, moray eels, crabs)	Minor cuts, Stings, scrapes, bites	M	m) Most likely hazard for location covered in briefing e.g. oysters m) Specialised first aid for treatment of injuries caused by hazardous marine life m) Do not touch m) Wear fins for sandy entry in known crab habitat m) Avoid removing fins and walking on a shallow rocky reef known as kina habitat	L	Site checked and monitored EMR team are all first aiders Brief on increased risk of sea lice in estuaries Ask about allergies	School first aid kit and first aiders
Unidentified/unexplained hazard in the ocean	Skin reaction, swelling, abrasions	M	m) Collect information surrounding reactions to seawater prior m) Wearing wetsuit to cover bare skin m) Communication with supervisor regarding possible reaction.	L	Site checked and monitored EMR team are all first aiders.	School to ensure they have provided medical information
Jet skis Foil surfers	Collision or distraction	M	m) Snorkel site location m) Harbour master to be called for inappropriate use	L	Tows dive flag	Comply with EMR instructions in water
Fishing lines and hooks/entanglement	Cut or entanglement	M	m) Knife to cut fishing line (not usually necessary in marine reserves). Look out for loose fish hooks.	L	Wear knife	Supervisors to notify snorkel leader
Set net in snorkel area	Entanglement	M	e) Don't enter the water. Consider relocation	L	Have phone and MPI number on site	Comply with EMR instructions in water

			m) Call MPI if there is a ban in the area and they will give instruction on what to do next			
Spearfishers in water close to group	Injury		m)make group known to fisher m)be aware of any dynamic hazards		Whistle carried to help communicate in water	Comply with EMR instructions in water
Sharp rocks and slippery surfaces/pebbles/rocks Hazardous terrain in intertidal area (including slippery seaweed and debris)	Injury/fall/slip/drown	M	m) No running on rocks, clear boundaries and supervision when observing from shore or walking to changing rooms/toilets m)m)prepare for trips, slips and falls m) Slippery surfaces identified during briefing. m) Best entry and exit points located m) Instruct to take care on pebbly beaches	L	Identification of significant hazards	Supervision for land activities, near water Awareness of hazards on land and around rock pools Boundaries and supervision for working near rock pools
Problems associated with being stuck in the mud/quicksand	Injury/suffocation	M	m) Appropriate footwear m) Appropriate supervision	L	Identification of hazards	Supervision for land activities, near water Awareness of hazards on land and around muddy shore
Broken glass, rubbish, rusty nails	Injury	M	m) Check site for broken glass/ hazards m) Pre warn groups of site specific hazard	L	Advise groups of known hazard areas	Supervision for land activities

			m) First aid kit on hand			
Infection risk – microbes in water	Illness	M	e) No snorkelling in places where there is an official notice of faecal contamination or health warning not to swim m) Follow sanitisation policy	L	Water quality check as per policy	Comply with EMR instructions in water
Visibility in the water	Incident	M	m) Poor visibility sites are avoided m) Stay in close contact with buddy	L	Weather assessment and pre-site assessment	Comply with EMR instructions in water
Tracks to site	Injury/slips/fall	M	m) Check after wet weather m) prepare for trips, slips and falls	L	Advise groups if known hazard	Comply with EMR instructors
Hard concrete on side of pool, falling into pool	Injury/slips/fall	M	m) 1 EMR snorkel leader or adult supervisor in water and 1 adult 'spotter' on poolside (with the view of all students) at all times for year 8 and below, the number of adults in the pool should be increased for year 0 – 1. m) No running around pool m) No walking with fins on	L	Advise groups of known hazards associated with concrete	Comply with EMR instructions
Uneven surfaces Submerged rocks at low tide and potential slippery boat ramp	Injury/trips/slips/fall	M	m) Pre-warn groups of site specific hazards.	L	Advice given re: uneven surfaces and operating in public space	Comply with EMR instructors
Dangerous land animals - loose dogs	Injury or death caused by wild animal	M	m) Aggressive unsupervised dog Adopt STOP- STAND- LEAVE	L	Refer to dangerous animal policy	Comply with EMR instructors

			e) Seeking alternative site e) Return to vehicles or bus, call dog management			
Obstruction at entry point - Sharp metal at entry point or broken glass, rubbish, rusty nails, fish hooks - Kayaks (clearlyaks) anchored in shallows	Various	L	m) Advise groups of the hazard m) Bring attention in site specific RAF m) Bring attention in pre-site assessment	L	Advise and document	Comply with EMR instructors
Hazardous substances - dog or human poo	Incident	L	e) Carry dog poo bags if in an area known to have a lot of dogs	L	Site checked and monitored	Comply with EMR instructors
Hazardous substances - Asbestos	Incident	M	e) Avoid sites with known asbestos m)ask schools/groups to inform us if known contamination m) if found on the day, re-locate and don't disturb area		School/group agreement asks for disclosure	Disclose any information and comply with instructions on day
Hazardous chemical - DX50 vapour (Chlorine dioxide)	Incident	M	m)Does not bioaccumulate or persist in the environment ClO2 is also considered one of the most environmentally friendly chemicals .	L	Coordinator to take care	Comply with EMR instructors
Dead life on beach or in water	Incident		m)assess risk or relocate		Site check	Comply with EMR instructors
Insect bites	Minor injury	L	m) Pre-warn groups of site specific hazards	L	Advise groups if known hazard	Supervision for land activities

			m) Carry repellent as part of beach box for known affected sites			
Unpredictability of dynamic hazards in public spaces	Various	L	m) Advise groups to manage selves	L	Manage selves	People to take personal responsibility to manage selves
Terrain Steep beaches, headlands and cliffs	Injury/slips/fall	L	m) Advise groups of the hazard m) Bring attention in site specific RAF m) Bring attention in pre-site assessment	L	Advise and document	Comply with EMR instructors
Wahi tapu sites	Contravene against iwi and hapu tikanga/management plans	M	m) Liaise with iwi prior to activity, especially if the site is known to be culturally sensitive. m) Identification of wahi tapu sites/seek history and prior knowledge m) Do not enter wahi tapu sites.	L	Liaise with relevant iwi. Pre-site assessment. Clear kaupapa briefing given to school.	Comply with all WBC instructions. Undertake activity with respect and regard to culturally sensitive sites.
Equipment						
Heavy equipment	Injury	H	m) Operate out of equipment trailer to avoid heavy lifting when possible m) Maximise help of volunteers and advise of heavy equipment when multiple bins require relocation	M	Advise of heavy equipment	Comply with EMR instructors
Hood entrapment or fall with fins	Incident or injury	H	e) Don't wear hood	M	Cover in briefings	Comply with EMR instructors

			m) Method for putting on/off hood explained m) Advised not to walk on land with fins			
Trailer operation and hazard	Injury	H	m) Care when opening and closing trailer (refer to trailer policy) m) Care on placement of fingers m) Care instructions to avoid participants or volunteers injury m) Training for trailer use m) Trailer maintenance - current WOF	M	Follow EMR policy on use	Comply with EMR instructors
No first aid kit No first aid certified personnel onsite.	Incident, worsened injury.	H	m) Pre-site assessment m) Equipment checklist m) Event leader to have and use whistle to gain group attention (one blast) if necessary or to organise evacuation to assembly point (car parking area) in the case of an emergency (three whistle blasts).	M	First Aid certificate Always carry first aid kit or communication device when in the field	Comply with EMR instructions
Vehicle Incidents (e.g. WBC van and trailer or in private vehicle on way to and in between worksites)	Damage to vehicle, injury, incident, death	H	m) Comply with road rules m) Refer to van/trailer policies on website m) Ensure driver is fully-licensed m) Ensure driver is familiar with trailer and van policies	M	Ensure drivers are fully-licensed Assess driver's ability prior to use of van/trailer Keep trailer and van policies up to date and provide training sessions	Comply with EMR instructions

			m) Driver to undertake training session prior to using the van and/or trailer m) Driver fatigue - incorporate into work plan for the day - plan accordingly		Familiarise yourself with, and adhere to, trailer and van policies Refer to transport policy Report any incidents to National Coordinator	
Full face mask	Entrapment	H	e) EMR does not allow them to be used under our supervision due to possible H & S risk. Mask can be hard to remove when full with water	L	Follow EMR policy on use	Comply with EMR instructors
Hand Sanitiser	Incident, Injury, Fire	H	m) When using alcohol-based gel hand sanitisers, ensure gel has fully dried/evaporated before touching any surfaces m) Stay away from any potential ignition sources immediately after using hand sanitiser	L	Apply hand sanitiser correctly and brief participants Must have in beach box	Comply with instructions.
Leaky mask and or faulty snorkel or breathing water down snorkel	Panic or choking	M	m) Equipment checked and fitted in shallow water m) Use of buoyancy aids (body boards) m) Use of personal floatation device m) Maintenance of equipment	L	Equipment checked and fitted in shallow water	Can bring own if fit for purpose
Unsecured gazebo or heavy equipment	Incident, injury	M	m) Always pegged/weighted down if supplied by EMR m) Tied down on windy conditions and not left unmanned	L	Follow EMR policy on use	Follow school policy on use

			m) Careful strop attachment			
No torches or torches failing (night activities e.g. spotlighting, snorkeling)	Poor visibility, injury, fall, death	M	m) All participants asked to bring torches – handheld or head-lamps. m) Some spare torches and head-lamps provided. m) Some spare torches with safety watch m) Each area leader must have a strong spotlight. m) Walking tracks and river access points to be pre-marked m) All participants to wear glow sticks (lights) and whistles m) Leaders to be easily identified	L	Clear instructions given. Some spare torches/headlamps provided. Pre-site assessment/preparation. Glow sticks. Charge torches	Comply with EMR instructions. Bring your own torch and batteries.
Inadequate communication	Incident worsened through lack of comms	M	m) Patchy reception noted on pre-site assessment m) Always carry cell phone m) Nearest closest landline known m) Back up emergency comms (eg VHF) for remote or patchy reception	L	Always communication device when in the field When working solo, in environments where there are no other people expected to be present (isolated) or areas where there is known bad reception, take a second form of emergency communications device (such as VHF for coast or Garmin SOS for rivers)	Comply with EMR instructions

No wetsuits or loss of safety gear	Hypothermia, incident or injury	L	m) Keep hold of board during windy conditions m) Appropriate wetsuits are worn for appropriate temperature and location	L	Check equipment fit for purpose	Comply with EMR instructors
Skin reaction to wetsuit or flippers	Illness	L	m) Equipment cleaned using EMR sanitisation policy m) Allergies to neoprene etc. known	L	Sanitisation policy adhered to	Comply with EMR instructors School to communicate medical conditions
Saniwise in eyes	Injury	L	m) Freshwater to flush eyes when using Saniwise	L	Follow EMR policy on use	Comply with EMR instructors
Skin caught in zipper	Injury	L	m) Advise for care to be taken	L	Cover in briefings	Comply with EMR instructors
Hand sanitiser causing static electricity burns	Injury	L	e) Allow hand sanitiser to fully absorb into skin before continuing work	L	Cover when in use	Comply with EMR instructors
Faulty kayak (safety watch) Capsize	Incident	L	m) Kayak checked to be fit for purpose m) Personal Flotation Device must be worn at all times m) Staff appropriately trained	L	Follow kayak policy and kayak best practise guides	Comply with EMR instructions
Science snorkels - Heavy catch bags, pickers and hammers, survey rope	Incident	L	m)set procedures to be used on day	L	Additional briefing for science snorkels	Comply with instructions

General workplaces and events

Hazard/Risk	Potential Harm (What could go wrong?)	Initial Risk Rank (L/ M/ H)	Control (What can we do to minimise the likelihood of potential harm?)	Residual Risk Rank (L/M/H)	Responsibility of MTSC
First Aid Kit • Not available • Inadequately stocked	• Injury not attended with appropriately • Infection	H	• First Aid Kit to be available on worksite • First Aid Kit to be stocked in accordance with Health and Safety Policy • All staff aware of the location of the First Aid Kit. • Proper signage is posted to recognise the location of First Aid Kit • Trained first aiders	L	Annually
Plant & Equipment	• Personal Injury / sharp objects • Musculoskeletal injuries from poor design	H	• Ensure guarding is always in place • Ensure pre-start checks of high-risk equipment is carried out • Monitor with regular workplace inspections • Ensure regular maintenance and repair • Training	L	Ongoing
Lifting/Manual handling Incorrect lifting	• Musculoskeletal injuries • Slip, trip and fall injuries	M	• Utilize trolleys and mechanical devices • Ask for help (2-person lift minimum) • Store goods at waist level/minimise storage at height and ground levels • Training	L	Ongoing
Dangerous Goods & Hazardous Substances	• Respiratory problems	H		L	Annually

(used, stored and handled and carried in Organisation vehicles) Fumes Spillages Incorrect storage. Fire Explosion	•Skin Diseases •Chemical Burns •Eye Injuries •Burns from Substances •Fire		• Check Safety Data Sheet for safety precautions and inform workers i.e. First Aid measures in the event of accidental release or spillage • Use appropriate personal protective equipment is available • Determine if any ignition source and put control measures in place to mitigate • All hazardous chemicals must be listed in the hazardous substances register		
Ladders	•Death or serious injury from falling from height	H	• Remove all unsuitable ladders from site immediately • Do not use ladders as a working platform • Use guarded working platforms instead of ladders (where possible) • Use ladders for short duration work or access to the work area only • 3 points of contact at all times.	L	Ongoing and annually
Poor Housekeeping	•Slips, trips and falls resulting in breaks, cuts, abrasions etc	H	• Keep materials and equipment clear of access ways • Use bins for waste • Contain building materials in designated storage areas • Ensure good housekeeping measures in place/site is clean and tidy • Monitor with regular site safety inspections and keep records of inspections	L	Ongoing
Electricity and electrical appliances	•Electrocution •Electric shock •Electrical burns	H	• Only registered electrician to repair electrical equipment • Use Lock Out/Tag Out practices (if applicable) • Use approved RCDs and/or provide power box	L	Ongoing and annually

			• Equipment, leads and RCDs to be checked regularly by a competent person • Avoid overloading power outlets • Monitor with regular site safety inspections		
Hand and power tools	• Death • Serious laceration/ loss of limbs, Puncture wounds, Nerve damage, • Cuts and abrasions	H	• Ensure guards in place and keep clear of blades • Use correct tool for the job • Ensure regular equipment Servicing and repair (Lock/Out plant and equipment as required) • Keep register of all tools, machinery and equipment (track loss of these) • Training – ensure workers are trained and competent to use specific equipment/ machinery	L	Ongoing and annually
Lone Workers	• Unable to obtain first aid care quickly	H	• Field intentions complete • Ensure communication plans are in place with regular check in times and only trained workers are working alone • Ensure lone workers are first aid trained • When working solo, in environments where there are no other people expected to be present (isolated) or areas where there is known bad reception, take a second form of emergency communications device (such as VHF for coast or Garmin SOS for rivers)	L	Ongoing and annually
Contractors and visitors	• Exposure to site hazards resulting in injury, illness or death	H	• Escort/Supervise any visitors/contractors/clients • Ensure all contractors working on site are inducted • Ensure traffic management in place if required • Clear hazards signs throughout the workplace	L	Ongoing

Moving vehicles	• Death i.e. crushing • Broken bones • Cuts & abrasions	H	• Designate and mark out drop off and pick up areas • Stay visible to the driver and keep clear of vehicles • Put traffic management plan in place if appropriate/applicable • Use spotters where visibility is restricted • Use signage to warn pedestrians	L	Ongoing
Public Safety	• Unauthorised access to site by public • Increased risk of personal injury due to access to tools, machinery, materials.	H	• Event plan in place • Site secured by boundary fencing with hazard boards and signs • Site locked when not occupied and monitored by secured if appropriate • Tools, machinery and equipment locked away when not in use and at the end of day/work. • Regular toolbox/safety meetings	L	Ongoing
Aggression from the Public	• Fatality • Serious Injury; Broken Bones /Cuts Scrapes • Mental Health	H	• Follow Difficult people Policy • Training & Awareness • Regular Safety Meetings to inform and discuss scenarios • Emergency Procedure in place	L	Ongoing
Drugs & Alcohol at Events (participants)	• Fatality • Serious Injury • Intoxication • Drug Overdose	H	• Refer to drugs and alcohol policy • Participants are to be free from the influence of drugs and alcohol to participant in safety sensitive activities	L	Ongoing