



MOUNTAINS TO SEA
CONSERVATION TRUST



EXPERIENCING
MARINE RESERVES

Experiencing Marine Reserves (EMR) Snorkelling Activity Standard Operating Procedures (SOP) Manual

December 2024

This manual is made up of SOPs for snorkelling from the Mountains to Sea Conservation Trust (MTSCT) Safety Management System. EMR standard operating procedures (SOP) - December 2024, replaces September 2023. Go to our website for Our Safety Management Plan (SMP) version 13 2024 and for additional policies and H & S forms.

www.mountainstosea.org.nz/health-and-safety

Date: 18 December 2024



Section One: Health and Safety responsibilities	5
1.1 EMR Coordinator Training Checklist	6
1.2 EMR Coordinator Endorsement Criteria	7
1.3 Health & Safety	8
1.4 Paperwork	8
1.5 Policy and procedure	8
1.6 EMR Documents	9
Section 2 EMR Snorkelling SOP	10
2.1 Procedure – prior to snorkelling	12
2.2 Safety Considerations and weather calls (dynamic hazards)	13
2.3 The snorkel site	13
2.4 Standard operating procedures – During the activity	14
2.5 Definitions	16
2.6 Clarity of roles or overlapping duties	22
2.7 Supervision structures	22
2.8 Ratio and group size	23
2.9 Shore observer 'spotter'	24
2.10 Field communication	25
2.11 Equipment	25
2.12 Risk and hazard ID and assessment	26
2.13 Special events and ancillary service (e.g. transport)	30
2.14 Post activity	32
Section 3 - Emergency preparedness and response plans	32
3.1 Introduction	32
3.2 Emergency policies	32
3.3 Responding to emergencies	32
3.4 Emergency Procedures	34
3.5 Emergency preparedness	35
3.6 Emergency training	36
3.7 Follow Up	37
3.8 Media response	37
Appendix 1 Snorkelling SOP's	37
1.1 Equipment	37
1.2 Briefings	39
1.3 Supervisor Checklist	40
1.4 Check In & Out Form	40
1.5 Parent and supervisor form	40
1.6 Student Permission	40
1.7 Quick Field Checklist	40
1.8 Quick reference RAMS Diagram for community events	42
1.9 Pre Site Assessment - Pre snorkel operation risk assessment form	42
1.10 Water Quality	43
1.11 Sanitisation Policy	43
Appendix 2 Snorkel day roles	43
Community Guided Snorkel Day Roles	43
Role of Experiencing Marine Reserves programme provider	44
Volunteer and leadership positions	45
Volunteer Ratings	46
Appendix 3 Snorkel Guidelines	47
EMR Snorkelling Objectives	47
Outline	48
The EMR Team	48
Health and Safety	48
Training the snorkers	48

Treatment of incidents in relation to snorkel diving	52
Hypothermia	54
Hyperthermia	54
Hyperventilation and shallow water blackout	55
Unconscious snorkeler	55
Drowning	56
Minor aquatic injuries	56
Marine Life	57
Karakia	60
Appendix 4 Incident Form	60
Appendix 5 Volunteer Form	60
Appendix 6 School Agreement	61
Appendix 8 EMR Peer Appraisal	61
Appendix 9 Quick Reference Snorkelling SOP	61
Appendix 10 Regional internal H & S team meeting template	61
Appendix 11 Incident Management	61
Incident Severity Scale	62
Notifiable events	63
Appendix 12 Senior Snorkel Guide Day Permission – Under 18	65
Volunteer snorkel guides	66
Volunteer Rating	66
Volunteer terms	66
Induction	66
Volunteer responsibilities	67
Appendix 13 Snorkel Day Registration Form	67
Appendix 14 Advanced Snorkelling SOP	67
EMR Specific activity SOP - Advanced snorkelling	67
Purpose	67
Definitions - Snorkelling vs advanced snorkelling	68
Key Hazards	68
Training and competency	68
Completed proficiency requirements (training)	69
Equipment	70
Sanitisation Policy	71
Ratio	71
Advanced snorkel safety plan	71
Briefing	72
Advanced snorkelling procedures	72
Pre-activity health checks	75
Advanced snorkel safety	76
Love Rimurimu	78
Appendix 15 River Drift Snorkel SOP	78
Purpose	78
Definitions	79
Hazard/risk identification and control procedures	79
Training and competency	79
Equipment (additional for river snorkelling)	80
Safety precautions for river snorkelling	80
Ratio	80
River snorkel event plan to include the following	80
Motueka Case Study event	81
Appendix 16 Night snorkel SOP	81
Purpose	82
Definitions	82
Key Hazards	82

Hazard/risk identification and control procedures	82
Training and competency	82
Equipment	83
Ratio	83
Age	83
Event plan	83
Appendix 17 RAF (RAMS) Form (snorkelling)	84

Section One: Health and Safety responsibilities

Refer to coordinator handbook and job descriptions for background information and detailed role descriptions.

Programme and Regional Coordinator responsibilities

The programme and regional coordinators are responsible for ensuring the effective implementation of the SMS within the Experiencing Marine Reserves (snorkelling) programme or other programmes of The Trust such as WBC, including:

- Take reasonable care of their own health and safety,
- Take reasonable care that what they do or don't do doesn't adversely affect the health and safety of others,
- Cooperate with any reasonable policies or procedures the business or undertaking has in place on how to work in a safe and healthy way, and
- Comply with any reasonable instruction given by the business or undertaking so that they can comply with HSWA and the regulations.
- Encouraging everyone to take a personal responsibility for safety.
- Ensuring that a strong focus is retained on hazard management out in the field.
- Ensuring that supervisors perform relevant safety tasks and complete safety processes (including hazard identification, intentions, equipment checks, incident reporting and so on).
- Ensuring that safety is discussed pre-, post- (and regularly during longer) programme(s).
- Monitoring and supporting staff to operate at/above 'current good practice' standard in the field, and giving feedback where appropriate.
- Ensuring that safety performance is a part of annual review and regular appraisal processes.
- Coordinating staff training & professional development for volunteers.
- Providing adequate support and resources so that safety systems and standards are maintained and improved.
- Adhere to all safety management policies and procedures.
- Take such care as is reasonable and in accordance with sound professional practice.
- Take full responsibility for safety management, and take any action required to ensure the level of risk is kept at an appropriate level.
- Take all practicable steps to identify, assess and manage hazards.
- Report any unsafe work conditions, practices or equipment as soon as it is practicable.
- Report all incidents to the national coordinator as soon as practical, and formally in writing (via the incident form) within five (5) days of incident occurrence. Report any notifiable events to Worksafe and the national coordinator
- Assist in the investigation and incidents with the objective of introducing measures to prevent recurrence.

- Ensuring overlapping duties of care have been discussed and recorded

Volunteer responsibilities

Take reasonable care of their own health and safety,

- Take reasonable care that what they do or don't do doesn't adversely affect the health and safety of others,
- Cooperate with any reasonable policies or procedures the business or undertaking has in place on how to work in a safe and healthy way, and
- Comply with any reasonable instruction given by the business or undertaking so that they can comply with HSWA and the regulations.
- Adhere to our Code of Conduct

Refer to our website www.emr.org.nz for governance (trustee) roles

1.1 EMR Coordinator Training Checklist

 2024 EMR Induction Checklist.pdf

Poutokomanawa approval to begin training and for file check sign off at end of training.

Safety Policy

Regional/Local Coordinators/contractors/leaders must:

- Report all accidents to the Co-director (marine). Include all near misses, whether or not these accidents involve injury; discuss as part of national meetings and regional online reports
- Complete site safety checklists and safety plans as required. Practise safe work methods including adherence to safety plans and the proper use of safety equipment.

Field Trip Plans and emergency procedures

- Base plans on the SOP's and templates provided. Feel free to email the National Coordinator for comment. You must develop a local emergency response procedure.

Safety Equipment

- See equipment lists

Swimming Ability

- Have the ability to swim confidently in open water the distance of 200 metres.

Local Conditions Knowledge

- Make sure you always know the area above and below tide mark, knowledge of the area essential to develop appropriate safety plans.

First Aid Certificate

Basic First aid certification and from end of 2022 must include unit standards 6401 (Provide first aid), 6402 (Provide basic life support) and 6400 (Manage first aid in a emergency situation)

Medical letter

You should have this on record from the Open Water Dive course. A statement from your doctor saying you are fit to lead snorkel excursions is adequate.

Driver's licence

Teaching Experience/Ability

Snorkel Instructor

- SSI Snorkel Instructor or NZQA 28391 & 28436 (formally 8296 and 4383) or existing divemaster/scuba instructor, AIDA Introduction to freediving or PADI (basic) Free Diver (with EMR in water management training)

Marine Biodiversity Knowledge

- Upskill yourself with facts from books, be fully aware of marine reserve benefits and other types of marine protection. Read appendix information in the back of this manual; also make sure you are familiar with section 3, snorkel guidelines.

Google drive training

Complete national reporting

1.2 EMR Coordinator Endorsement Criteria

2024 EMR Training Record Template

- Attend Mountains to Sea Conservation Trust (MTSCT) National Marine & Freshwater Wananga within one year of endorsement (when equivalent regional training provided) and then once every three year
- Completed police vet form and achieved satisfactory police vet (see our vetting policy)
- CV's and background character references for new coordinators – Safety Check
- Signed the most recent MTSCT Health & Safety Contract.
- Completed the training checklist
- Completed annual H & S requirements (e.g. H & S quiz)
- National reporting
- Google drive induction

1.3 Health & Safety

The Mountains to Sea Conservation Trust takes all reasonably practicable steps to ensure the safety of all we associate with.

Our Safety Management System was last reviewed in September 2024. The latest policy and individual relevant parts of the policy are on our www.mountaintosea.org.nz/health-and-safety

1.4 Paperwork

Refer also to our Privacy Statement, Record keeping Policy and Privacy Guidelines

- It's Important to have H & S paperwork samples from every region
- Include paperwork from the day of incident with incident report as supporting documentation
- Regional coordinators should go through pre-site assessment forms and record any 'free lessons' and pass on to team via meetings and online regional reporting
- Regional coordinators are responsible for collating H & S forms and including examples to the regional reports (digital or paper copies) from all programme coordinators and hold for 5 years

1.5 Policy and procedure

Policy Documents

MTSCT – EMR Policy (snorkelling specific)

Policy documents on use of the trailers (if applicable), police vetting, sanitisation and anything else that requires a policy, are found on our website. The most recent policy relates to the below (see website for all policies and protocols).

Gazebos supplied by EMR MUST be pegged down no matter what the wind conditions. During windy conditions we MUST peg and tie down the gazebo (to cars, trailers or water filled containers). Erected EMR gazebos MUST not be left unmanned at any time.

Policy on full face masks: We do not to allow the use of full face masks as of 2017/18 season, due to possible H & S risk (mask can be hard to remove when full with water)

Formal procedure for antihistamine administration

Our team may carry over the counter antihistamine for personal first aid items. Coordinators do not administer any medication without specific written permission. We must ensure that we have captured information and increase identification of participants with known allergies and anaphylaxis via our pre – site assessment forms and/or other forms. Find out if there is an ‘action plan for anaphylaxis’ in place as part of our notes for medical/swimming management

Shark policy

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.

Complaints policy

Refer to our complaints policy on our website. Health and safety feedback and/or comments can also be submitted via our website <https://www.emr.org.nz/about-emr/regulatory/health-safety>

EMR SOP Manual Amendment Policy

All coordinators to implement. Write a note on the page that has been updated. Attach amendments to the back. National coordinators check that all coordinators have received and understood amendments.

Communication

Safety information is provided to participants via our programme website www.emr.org.nz, programme itineraries; site specific RAMS, emergency procedures, permission forms and school agreements. On the day of the snorkel safety information is communicated in the form of briefings with regards to the different roles on the day, all participants, supervisors and shore watch positions for example. Businesses that work together will likely share health and safety duties in relation to the same matter. These are known as overlapping duties. Overlapping duties of care will be communicated via our school provider contracts, event plans and MOU’s. More information about overlapping duties can be found at <http://www.worksafe.govt.nz/worksafe/hswa/understanding-hswa/overlapping-duties>

1.6 EMR Documents

Make sure you use digital versions of these via the Shared Google Drives → MTSCCT Programme Templates and Resources → Mountains to Sea → **All Form Templates**

- EMR background
- Snorkel Guidelines
- EMR Standard Operating Procedures (SOP’s), RAF (RAMs) and Emergency plan templates
- Mountains to Sea Conservation Trust Safety Management System (SMP)
- Briefing checklist
- Pre Site Assessment

- Permission Forms
- Incident Report Sheet
- Supervisor forms
- School Responsibility Agreement
- EMR Snorkel guidelines (SOP)
- Info for schools
- EMR breakdown (background for teachers)
- Itinerary example
- Programme opportunity template
- Classroom intro files

- Movies and resources
- PowerPoint presentation for adaptation
- EMR curriculum
- EMR Learning Journal
- Latest EMR Manual
- EMR planning, evaluation & reporting
- EMR project planning template
- End of year project reporting and evaluation
- Teacher and student evaluation

Section 2 EMR Snorkelling SOP

The Mountains to Sea Conservation Trust has a team of Experiencing Marine Reserves (EMR) regional coordinators based in the following regions. Regional coordinators have authority and responsibility to deliver EMR according to the Mountains to Sea Conservation Trust's Safety Management System (SMS), EMR snorkelling Standard Operating Procedures (SOPs) and Safety Audit Standard (SAS):

EMR Snorkelling Standard Operating Procedure (SOP)

This information is applicable for all contractors/coordinators and volunteer staff involved in the delivery of the EMR programme as well as background material for all participants or clients.

The EMR Team

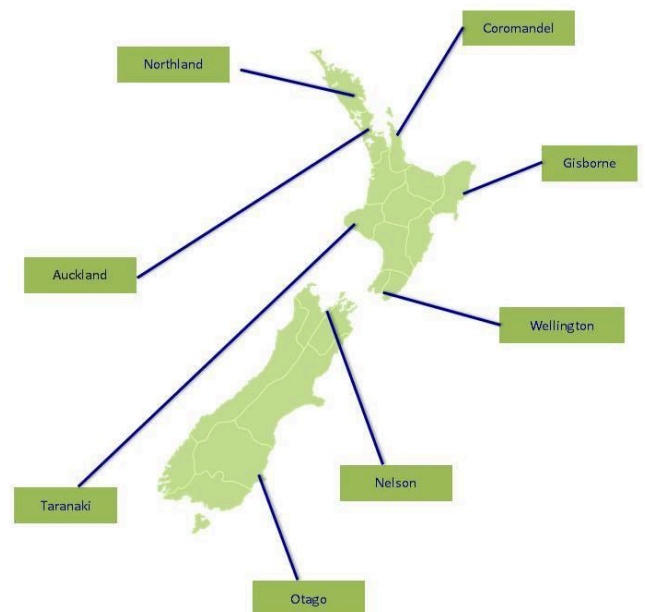
EMR is delivered by a team of passionate coordinators nationwide. EMR coordinators/snorkel leaders offer guidance, direction and coordination of classroom exercises and field trips to the ocean. We also provide snorkel equipment, instruction, resources and snorkel risk management.

To find out more about our team of regional coordinators visit our [website](#).

Satellite regions (Otago and Stewart Island/Rakiura)

EMR defines satellite regions as areas where we deliver events under the direct supervision of an endorsed coordinator in collaboration with a regional organisation, in absence of a provider organisation being established.

Minimum skills required by EMR snorkel leader/coordinator



Extremely confident in the water and snorkelling (technical skills)
Good knowledge of the area and sea conditions (understanding of weather)
Empathy
Basic First aid certification and from 2022 must include unit standards 6401 (Provide first aid), 6402 (Provide basic life support) and 6400 (Manage first aid in a emergency situation)
Fit and healthy – medical clearance
Teaching experience (communication, management skills and following instructions)
Good marine biodiversity/conservation/marine reserve knowledge
SSI Snorkel Instructor or NZQA 28391 & 28436 (formally 8296 and 4383) or existing divemaster/scuba instructor or PADI (Basic) Free Diver or AIDA Intro Freediver (with EMR in water management training)
Free from the influence of drugs or alcohol

It is highly recommended that in addition to the above the EMR leader/coordinator has the following qualifications:

Snorkel or SCUBA certificate from a recognized dive trainer agency
Relevant instructor qualifications - this could include NAUI Skin Diving Instructor or equivalent
Swimming and rescue skills – this could include Surf Life Saving Certificate (Bronze medallion), NAUI Skin Diving Instructor (swimming and rescue component), SCUBA training to Rescue Diver level or equivalent
NZU Mini-dippers training

Minimum skills required by parents/volunteers in supervision role:

Good swimmers (can swim 200m) with fins, can tread water and swum in open sea
Ability to listen to instructions
Follows the MTSCCT code of conduct
Fit and healthy

Free from the influence of drugs or alcohol
Snorkelling experience if possible
Ability to assist the leader in the management of the group in the water in normal and emergency situations.

2.1 Procedure – prior to snorkelling

Refer to coordinator role description.

Coordinators will provide the school/group with the most recent version of the EMR snorkelling guidelines and SOP. The EMR SOP will be applied to the site, participants and/or event. Site specific RAF (RAMS) will be developed for the site and back up sites. Itineraries will be developed for schools/groups and include:

Itinerary template

☰ 2024 MTS Full Programme Itinerary Template

- Information about the EMR programme
- Information and contact details of the coordinator/s and teachers
- Phone numbers for the school and teachers
- After hours contact of lead teacher must be listed on itinerary
- Dates and timetables for the planned activities
- A summary of your responsibilities and their responsibilities (covered by the signed school agreement for full programmes, as an attachment on a casual snorkel experience itinerary and as a reminder on the information pack on the site)
- Links to further programme information such as EMR Manual, including Snorkel Guidelines (SOP), curriculum & testimonials
- Risk disclosure and emergency procedure diagram
- Site specific RAMS (can be provided as a separate document, closer to the time, but at least a week before field trip commences)
- programme ACTION information
- Swimming and Medical consent forms (attachment)
- Postponement/cancellation procedure
- Bank details for where the school/group is to make payment (if applicable).
- All students must have permission from their parent/guardian to participate in the EMR snorkelling activity (the school collects these, as agreed in the school agreement).

Additional things to note


- Pregnant coordinators should seek a snorkel instructor assistant when leading field delivery.
- Coordinators must not be responsible for dependants during safety sensitive tasks
- EMR provides the specialised first aid kit, and the school also carries a kit. Refer to equipment SOP

2.2 Safety Considerations and weather calls (dynamic hazards)

 2024 EMR Pre-site.pdf

Sensible assessment of environmental conditions, clear instruction and adequate supervision are the keys to EMR's snorkel risk management. We base our decisions on the safety of the sea conditions. On some occasions sea conditions may be safe, but rain showers may occur, in these cases the school will be advised and they will decide the appropriate action and or preparation. **Dynamic hazards (such as swell and boat traffic) will be captured on the day via the pre-snorkel site assessment.** Weather assessment is recorded on the pre-site assessment form.

2.3 The snorkel site

 2024 EMR Site Specific RAF (RAMs) and Emergency Procedure - PART 1 - TEMPLAT...

EMR uses a range of snorkel sites including local unprotected marine areas and marine reserves around New Zealand. Snorkelling in the open water environment involves the dangers of changing weather, surface conditions, currents and tides. The EMR Coordinator will establish safe operational parameters and boundaries for environmental conditions for each snorkel site.

EMR will ensure that:

- The best weather forecasting service available will be used to assess the snorkel site;
- Information on current and tide patterns and local indicators will be assessed, and taken into consideration for snorkel sites where these may present a risk;
- Coordinators will alert groups about how and when to relocate, postpone or cancel a trip due to environmental/safety concerns.
- Site specific RAF's (RAMS) are written for the site


The snorkel site and route is defined by landmarks and distances from shore and the use of a dive flag to alert other water users. In some cases marker buoys may also be used.

The area for snorkelling will be well defined for students, adults and helpers, with a dive flag to follow and warn any passing boats. Areas where there may be large tidal flows, strong currents, large waves, poor visibility or numerous power boats should be avoided. Snorkelling will not take place where there is a current Tsunami warning or notice of faecal contamination, making it unsafe to swim.

2.4 Standard operating procedures – During the activity

Snorkel Briefings

 2024 EMR School Snorkel Briefing.pdf

 2024 EMR Snorkel Day Briefing.pdf

- All EMR snorkel excursions are to be led by a suitably trained and endorsed EMR coordinator, a suitably experienced and trained person may stand in for unforeseen reasons, with appropriate permission from the Mountains to Sea Conservation Trust (top management).
- The EMR coordinator/snorkel leader undertakes pre-site assessment (this includes the identification and management of medical conditions and weak/non-swimmers) and obtains up-to-date weather reports before field trips commence.
- Snorkel leaders/coordinators will make recommendations to the teacher/group leader in charge, and decisions will be made cautiously, on some occasions an alternative snorkel location may be sought (or pre-planned) instead of a postponement or cancellation. Additional procedures may be activated (refer to pre-site assessment SOP) Reminder: after hours contact number for lead teacher to be collected and noted on itinerary
- The EMR coordinator/snorkel leader/event controller makes the final 'safety' call on whether events/school delivery go ahead or not.
- Some school deliveries or events involve multiple coordinators, but there will always be a snorkel lead or event controller with the overall responsibility.
- Medical conditions must be disclosed to snorkel leader/EMR coordinator, especially epilepsy, diabetes, heart conditions or asthma, these medical situations will require discussion with regards to the management of the possible increased risk. Assessment and discussion is recorded on the EMR pre-site assessment form and may result in increased supervision, limiting extent of participation (depth and distance), and extra precautions and in some cases withdrawal (halt) from activity if safety is compromised.
- The EMR leader/coordinator will conduct a snorkel briefing (refer to snorkel briefing SOP) . Always refer to your briefing checklist for the activity , even when you know it off by heart
- Check that participants can understand English
- Wetsuits are required for all student participants.

- All novice students or year 8 and below should wear wetsuits with no weight belts, unless accompanied by their parent or guardian or specialised training has been given prior.
- The EMR leader/coordinator will explain the safest entry and exit points and proposed route for snorkelling.
- The EMR leader/coordinator to ensure snorkel gear is 'fit for purpose' (including those with their own gear)
- The role of 'supervisors' is to assist and supervise the student's in-water and are expected to be confident swimmers, fit and healthy and free from the influence of drugs or alcohol. Supervisor forms are to be completed. However in the case of wet weather or rushed circumstances, a video declaration can be used.
- Check in and out with the on-shore safety observer
- All snorkelers are automatically treated as grade Whai by default unless grading has been undertaken (this may happen for adventure snorkel days, advanced snorkel tours and annual Poor Knights trip)
- The EMR leader/coordinator will conduct a shallow water assessment of all participants and supervisors
- The EMR leader/coordinator will continually identify and manage hazards during the snorkelling activity.
- During the snorkel excursion, there must be a minimum of one EMR coordinator or snorkel instructor to lead in-water, with the ability to safely supervise the participants. Control of the group is kept by positioning at the front of the group to overview the entire group, using a dive flag for participants to follow and whistle to keep the group's attention.
- Supervisors are to remain within 50m and within audio and visual distance of the EMR snorkel leader to allow communication of any hazards, minor incidents requiring first aid or a medical or more serious incident.
- The snorkel guide shall ensure that he/she can be easily identified (by the dive flag and/or yellow vest (from December 2016)) and shall remain within 50 m of the group to enable timely response in the case of an emergency. The 50m distance rule may be modified (greater or less) at the discretion of the EMR coordinator based on the type of environment or conditions. Any modification of this distance rule is recorded in the pre-site assessment. The rule does not apply to supervisors returning to shore with buddy groups who have notified the EMR coordinator/snorkel leader.
- The EMR snorkel leader may identify a suitable adult supervisor or snorkel assistant to follow at the back of the group or lead the group back to shore if the EMR snorkel leader/coordinator has to respond to a first aid or emergency situation. The identified assistant must be available and within audio and visual distance of the snorkelling group.
- Students stay in immediate proximity of each other and their designated adult buddy 'supervisor' (one arm's length away). Adequate supervision ensured by adult 'supervisors' provided by the school or EMR by prior arrangement. One up One down rule applies for duck diving. Supervisors must ensure they can safely manage the situation and be able to notify the EMR coordinator if immediate rescue is

required. Snorkel skills such as snorkel clearing, buddy system and signals should be demonstrated prior to duck diving.

- Body boards are used by EMR as buoyancy aids and for additional visibility. There should be 1 body board per buddy group for year 8 and below. At least 1 body board must be carried by the snorkelling group for year 9 and above.
- Staff running any activity have the authority to cease an activity for any safety reason.
- Tools such as cameras/waterproof phones should be able to be stowed away (hands free) to allow complete focus on supervision - priority is supervision when you are responsible for supervising a buddy group
- Accidents are most likely to occur at the end of the day, keep procedures tight right to the end!
- Always maintain group cohesion, especially when returning to shore while snorkelling.
- Coordinators to keep watch for signs of storm
- Know to evacuate to safe place if visible/audible signs of electrical storm, or storm cells within 30km on radar
- If caught in an unexpected thunderstorm - prompt immediate calm evacuation from water.
- **It's not what you know, it's what you can show! Record everything!!!** (on the Pre-site assessment, training records etc)

2.5 Definitions

Participant

A person who takes part in EMR activities and is not staff.

Supervisor (casual volunteer or volunteer staff)

Person or persons responsible for supervising a student buddy group, assisting group to exercise snorkel skills and following instructions of the EMR snorkel leader/instructor. Supporting the snorkel activity, by taking responsibility for others within the activity. The role of 'supervisors' is to assist and supervise the student's in-water and are expected to be confident swimmers, fit and healthy and free from the influence of drugs or alcohol.

Staff identification and control – in field (including volunteers)

The safety audit standard for Adventure Activities defines staff as a person or persons responsible for leading, guiding, instructing, supervising or supporting an activity, or otherwise taking responsibility for others within the activity.

Identify as a hazard any person who is unable to perform safety tasks as required to fulfil the responsibilities of their role.

Do not permit a staff member to undertake any safety related tasks if they are impaired and therefore may be a hazard to themselves or to any person on the activity. Impairment could be due to factors such as alcohol, drugs, injury or fatigue.

Staff Definitions

Staff/Volunteer type	Role	Implementation Method and duties	Control and induction process
EMR coordinator/snorkel leader/event controller	Overall snorkel activity management and in-water leadership. Snorkel instructor is fit and healthy and free from the influence of drugs or alcohol.	All EMR coordinators are appropriately trained by MTSCT with relevant qualifications. Competent in implementation of all programme SOP's and emergency procedures.	All snorkel activities are assigned an EMR coordinator to lead the activity. Staff appraisal, evaluation and monitoring carried out by the National coordinator or Programme Director (MTSCT).
EMR long term volunteer or intern (provided by EMR) 'Volunteer staff'	Assist EMR coordinator with delivery of activity, including supervision of the student's in-water and other 'supervisors'. Expected to be confident snorkelers/swimmers, fit and healthy and free from the influence of drugs or alcohol.	Volunteer form signed. Detailed safety briefings. In some cases speciality training is carried out (especially when EMR providing the majority of in-water supervision) including the emergency procedure. Has read all programme SOP's and emergency procedures.	Observe skill set under close supervision of EMR coordinator/snorkel guide. Can lead snorkel under supervision of the EMR coordinator
EMR volunteer snorkel guide (provided by EMR)	Assist EMR coordinator with delivery of activity,	Volunteer form signed. Detailed safety briefings. In	Observe skill set under close supervision of EMR

<p>'Volunteer staff'</p>	<p>including supervision of the student's in-water. Expected to be confident snorkelers/swimmers, fit and healthy and free from the influence of drugs or alcohol.</p>	<p>some cases speciality training is carried out (especially when EMR providing the majority of in-water supervision) including the emergency procedure and Quick reference SOP</p>	<p>coordinator/snorkel leader. Experience in snorkel guiding is gained by assisting an experienced guide or coordinator before guiding on own</p>
<p>Supervisors (provided by school or group) 'Casual Volunteer' This volunteer does not work with EMR on an ongoing or regular basis</p>	<p>The role of 'supervisors' is to assist and supervise the student's in-water and are expected to be confident swimmers, fit and healthy and free from the influence of drugs or alcohol.</p>	<p>Role described in school agreements, schools information such as itinerary. Role described during briefing on the day and via the supervisor checklist. Separate safety briefing for 'supervisors' after group briefing. Refer Quick reference SOP. Must take reasonable care of their own health and safety and safety of others. Comply with instructions given by EMR snorkel leader</p>	<p>Acceptance of role. Tick on pre site assessment form that briefing given as per checklist. Supervisor form complete. Competency checked in shallow water. Wears 'supervisor' rash shirt</p>
<p>Land observer 'spotter'</p>	<p>Provide effective lookout for surface activities and hazards. Access to medical information and communication devices. Check the number of groups in water. Signal to EMR</p>	<p>Perform visual scanning of the surface of the dive site Separate safety briefing for 'spotter' after group briefing as per checklist including the</p>	<p>Acceptance of role. Tick on pre site assessment form that briefing given as per checklist. Complete EMR In and Out of water form.</p>

	Coordinator/Snorkel leader if a group member drifted away from the main group.	emergency procedure.	
Vessel operator (safety watch)	Provide effective lookout for in-water activities and hazards.	Can identify dive and relevant maritime signals. Has good visual scanning skills. Can identify entry and exit hazards including those related to propellers.	In some instances propellers will need to be on then disengaged at the last second, such as when manoeuvring the boat to collect divers in difficult conditions or emergency scenarios. Brief participants on these scenarios and emphasise the importance of the use of signals for when to approach or leave the boat.

Please note: Adult participants that do not have a specific supervisory role are not staff; they are participants or adult observers.

Participant Identification and ratios

Participant type	Description	Implementation Method	Control
Schools	School children aged 5 -18.	Risk disclosure. Permission and medical forms collected by school and declaration of RAMS understanding and medical management completed on the day.	1:2 (with a maximum ratio of 1:4 for year 8 and below, adapt ratio to conditions, age, skills of students and/or supervisors). For year 9 students and above, the EMR ratio recommendation is 1:4 (with a

			maximum of 1:6). Assessment of supervisors via separate supervisor briefing and observational assessment in shallow water.
Children	Organised tour for children.	Risk disclosure. Permission and medical forms collected.	1:2 ratio recommendation, assessment of supervisors via separate supervisor briefing and observational assessment in shallow water.
Adults	Different ages and abilities.	Risk disclosure. Permission and medical forms collected.	For non-school related adult snorkelling activities EMR has a maximum ratio of 1:12 (i.e. 1 instructor and 12 participants, dependant on age, conditions, experience of the participants).
Private tours		Risk disclosure. Permission and medical forms collected.	For non-school related adult snorkelling activities EMR has a maximum ratio of 1:12 (i.e. 1 instructor and 12 participants, dependant on age, conditions, experience of the participants).

Members of the public – snorkel days		Risk disclosure. Permission and medical forms collected.	Ratio is a maximum of 1:6 (1:4 snorkel guide to child ratio and 1:6 snorkel guide to adult or mixed group with a maximum of 4 children (under the age of 13). Maximum amount in the water is 60 at any one time.
Professionals	Guided corporate tours	Risk disclosure. Permission and medical forms collected.	For non-school related adult snorkelling activities EMR has a maximum ratio of 1:12 (i.e. 1 instructor and 12 participants, dependant on age, conditions, experience of the participants).

Site ID (example)

Site Type	Activity	Ancillary (vessel or safety kayak) support	Control
Sheltered waters or lagoon	Snorkelling with a school group or specific group	No	Participant snorkel leader is able to control entire group
Areas with current or known specific hazards.	Snorkelling with members of the public at Community Guided Snorkel Day event	Yes	Detailed event plan or RAMS to control hazards

Remote site	Snorkelling with a school group or specific group	Yes	Detailed snorkel plan (including emergency plan) for the site
sites with significant boat traffic	Snorkelling with a school group or specific group	No	Briefed on hazard, rigid dive flag and body boards for extra visibility. Whistle to manage group and allow for quick re-grouping. Consider anchoring dive flag in addition to flag with the group

2.6 Clarity of roles or overlapping duties

On occasions EMR uses a chartered boat for snorkel excursions. The EMR snorkel leader needs to be confident that any safety tasks delegated to the chartered boat operator will be performed to good practice, and that the EMR snorkel leader and boat operator are clear on who is responsible for performing which safety roles. The chartered boat operator needs to be confident that dive good practice is followed by the EMR snorkel leader — where the EMR snorkel leader is within scope of the adventure activity audits this confidence may be supported by them having been audited and being on the WorkSafe register for adventure activity providers. Overlapping duties are also covered by the EMR /School Responsibility Agreement. Whenever you share responsibilities with another operator, you need to be clear on who is responsible for what.

Events involving multiple organisations in safety sensitive roles (snorkelling, Kayaking, SUP) requires all parties to sign the event plan to acknowledge their responsibilities.

2.7 Supervision structures

Assess the level of risk that participants or staff will make errors leading to serious harm and the risk presented by other hazards of the dive site. Factors to take into account when assessing the level of risk include:

- Size, type and location of the snorkelling site;

- Number of participants;
- The competence of supervisors/participants, the likelihood that they will follow instructions and their acceptance of responsibility for managing hazards;
- The number and competence of staff;
- The general hazards of the snorkel activity and the site;
- Communication and language considerations.

During school and community event delivery - Treat everyone as if they are new to snorkelling/swimming - by using flotation (our wetsuits and boards) . Make everyone snorkel as a practice to check gear fits and assess ability in shallow water (shallow water assessment).

Supervision levels may also need to be increased during a trip, for instance if participants show a lower level of competence or confidence than was originally planned for and are no longer safe under the previously agreed level of supervision. Ensure that guides and instructors conduct on-going risk assessment and know what to consider and when to move to higher levels of supervision.

Techniques for increasing supervision levels include:

- Staying closer to the participant;
- Modifying ratio (see below);
- Instructing the participant to stay in a particular position relative to the guide or instructor, or another more able participant;
- Stopping and re-grouping more frequently;
- Reducing the boundaries of a snorkel site;
- Separating participants into different groups if they are likely to encourage each other to behave unsafely;
- Ability grouping participants.

2.8 Ratio and group size

School groups

Based on experience and optimum safety EMR has an adult supervisor: student/participant ratio recommendation of 1:2 (with a maximum ratio of 1:4 for year 8 and below, adapt the ratio to conditions, age, skills of students and/or supervisors). For year 9 students and above, the EMR ratio recommendation is 1:4 (with a maximum of 1:6). For groups larger than 60 in one day, two coordinators or 1 coordinator with a suitably trained and experienced assistant must deliver.

EMR recommends groups of 16 students in the water per rotation. This amount may be increased to 20 students depending on extra adult supervisors and assistants, snorkel instructors, sea conditions and with agreement from the school/group. The absolute

maximum number of participants is 24, while maintaining an adequate participant to supervisor ratio.

Note: If an adult is not suitable for a 'supervisor' role, then that adult will become a 'participant' and be buddied up with an appropriate group not exceeding the maximum ratio for that year group. For example an adult that is not competent supervising a group, may be buddied up with another group, so the group may end up with 1 competent supervision adult, 1 adult participant and 3 student participants as a maximum.

Community Guided Snorkel Days

For EMR Community Guided Snorkel Days, the ratio is a maximum of 1:6 (1:4 snorkel guide 'supervisor' to child ratio and 1:6 snorkel guide to adult or mixed groups with a maximum of four children (under the age of 13). The number of snorkelers in the water is recorded in the registration tent. A minimum of one coordinator will have an in water guide role to scan delivery of the event in water and provide constant assessment of event dynamics (checking performance of volunteer guides, snorkel route etc). Four-year-olds may participate with an accompanying parent/guardian, with no other participants in the group.

Groups

For non-school related adult snorkelling activities EMR has a maximum ratio of 1:12 (i.e. 1 instructor and 12 participants, depending on age, conditions, experience of the participants).

Pool sessions

For pool sessions there must always be 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. All public pools should have a shore based lifeguard. Participant equipment should be checked after each use to ensure the equipment is fit for purpose. When hiring equipment, check that it is fit for purpose before use.

Refer to appendix for activity specific SOPs for Advanced snorkelling, Night snorkelling and River drift snorkelling

2.9 Shore observer 'spotter'

There must always be someone on the lookout from shore for any client group, if possible wearing a high visibility vest. This person must be ready and equipped to handle any emergency and complete the EMR Check In and Out form. It is preferable that this person has a first aid qualification.

2.10 Field communication

Safety information is provided to participants via our programme website www.mountaintosea.org.nz, programme itineraries; site specific RAMS, emergency procedures, permission forms and school agreements. On the day of the snorkel safety information is communicated in the form of briefings with regards to the different roles on the day, all participants, supervisors and shore watch positions for example. Safety information is communicated to potential participants and other parties via our programme website.

Cell phone reception checked via pre site assessment form. Google calendar provides information on the whereabouts of the team, with detail in the itineraries. VHF radio to be used for areas with no or little mobile coverage.

2.11 Equipment



Snorkel leader clothing & equipment

- Watch
- Whistle
- Yellow 'snorkel leader vest'
- Dive flag
- Suitable wetsuit, mask, snorkel and fins
- Weight belt (with appropriate buoyancy for activity)

Standard group equipment

- Wetsuits, Masks, snorkels and fins
- Buoyancy aids (body boards)
- On site cell phone (fully charged)
- Tarpaulin (emergency shelter)
- Supervisor rash shirts

Shore equipment

- Beach box/backpack (Refer to Equipment SOP for contents)
 -  2024 EMR Equipment Checklist - Snorkel Delivery.pdf
- Cell phone or other emergency communication device
-  2024 MTS Equipment Checklist - First Aid Contents.pdf
- De-fog

Additional equipment for remote or colder waters

[Refer to equipment SOP](#)

2.12 Risk and hazard ID and assessment

Hazard Management Process

Identify hazards both systematically and dynamically. The systematic part of identifying hazards should use a variety of methods such as:

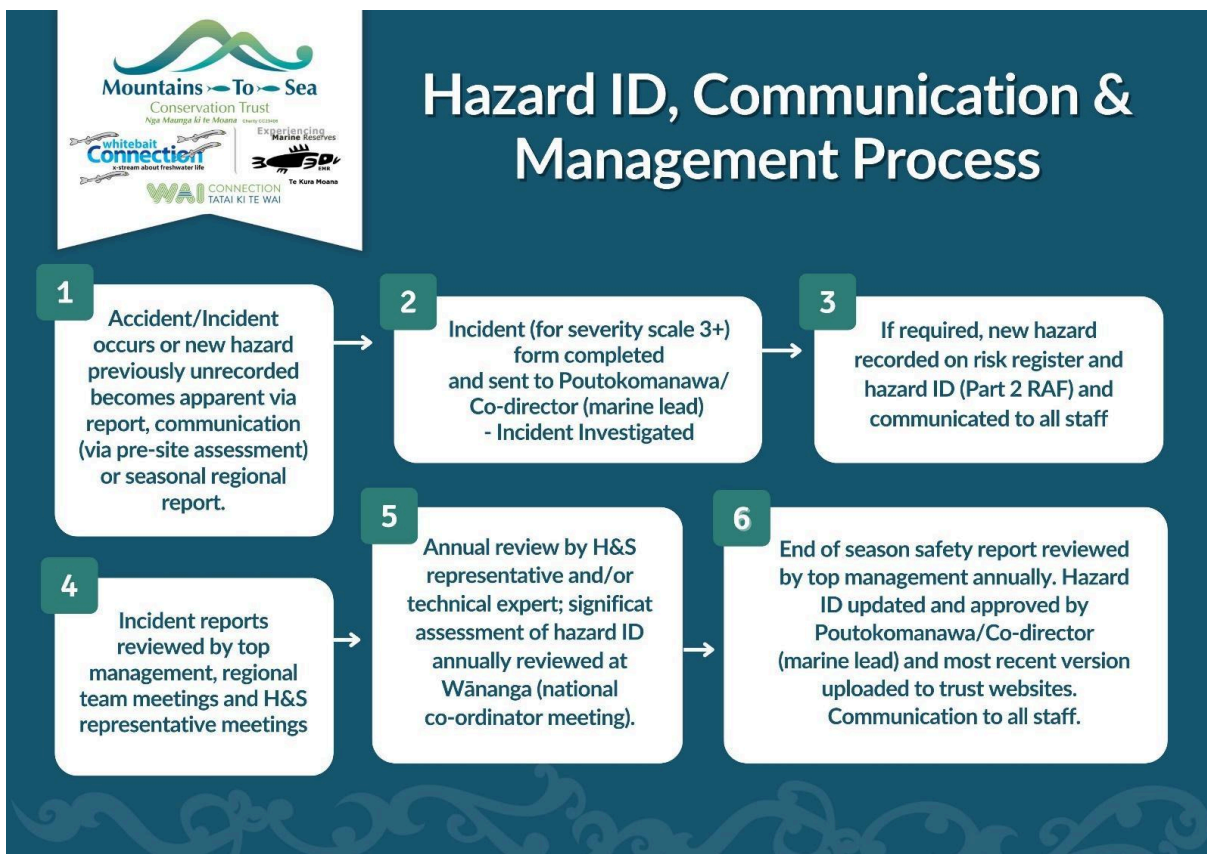
- Inspecting sites physically and/or consulting with other users;
- Reviewing standard operating procedures;
- Reviewing the Adventure safety Guideline (ASG) for dive;
- Reviewing past incident reports and 'lessons learned', both internally within the operation and externally within the sector (such as PADI reports and Dive New Zealand magazine);
- Internet search.

Assess all hazards to identify which ones are significant. Align assessment and rating systems with current good practice and take into account the nature and context of the activity. Significant hazards must be managed according to the "Eliminate and Minimise" hierarchy of action:

ELIMINATE by ensuring that the hazard no longer exists, and/or is no longer part of, or involved with the activity e.g. do not take people under a certain age or without a certain skill set.

If elimination is not possible, **MINIMISE** by doing whatever can reasonably be done to lessen the hazard. This should be to a point where you no longer consider the hazard to be significant. Staff running any activity have the authority to cease an activity for any safety reason.

1.	Identify the risks (losses or damage) that could result from the activity. <ul style="list-style-type: none"> • Physical injury; • Social/psychological damage; • Material (gear or equipment); • Programme interruption.
2.	List the factors that could lead to each risk/loss. <ul style="list-style-type: none"> • People; • Equipment; • Environment.
3.	Think of strategies that could reduce the chances of each factor leading to the risk/loss. <ul style="list-style-type: none"> • Eliminate if possible; • Minimise if can't eliminate
4.	Make an emergency plan to manage each identified risk/loss. <ul style="list-style-type: none"> • Step by step management; • Equipment/resources required.
5.	Continual monitoring of safety during the activity. <ul style="list-style-type: none"> • Assess new risks; • Manage risks; • Adapt plans.



Adventure Snorkel Days

Experiencing Marine Reserves has branched into running “Adventure Snorkel Days”. These events are where we explore offshore islands with the help of an external operator where we snorkel directly off the vessel. As participants are often very confident in the water we needed a new way of categorising participants to suit ability levels. There are also occasions where we may work with advanced snorkelers or the Poor Knights annual competition trip where we have experienced snorkelers.

Categorisation Levels - Whai | Haku | Mako

Whai – Stingray – Standard experience level to novice.

This is our default category. ALL EMR participants come under this category unless grading undertaken and standard EMR SOP and snorkel day procedure apply.

Haku – Kingfish – Experienced snorkelers

Criteria

- Experience can be verified by EMR coordinator
- To have shown strong confidence in the water
- Attended an EMR snorkel day experience or snorkel day before
- Both participants and supervisor experienced snorkelers
- Participants must have their grade noted against their name on the Check In/Out Form in the medical and grade info section

Mako – Shark – Experienced to advanced snorkelers/freedivers

Criteria

- Be over the age of 15
- Attended an EMR snorkel day experience or snorkel day before
- Can provide evidence of experience to EMR coordinator
- To have shown strong confidence in the water
- Participants must have their grade noted against their name on the Check In/Out Form in the medical and grade info
- Participants must check in and out with the designated check in/out person, stay within boundaries and return upon sounding the boat horn.
- Participants must have a snorkel buddy and observe the one up/ one down rule
- Participants do not need to take a board or be directly supervised by a snorkel guide/supervisor
- In all cases above a minimum of 1 EMR coordinator/instructor is roving in water with an accessible board and within audible distance from the boat/group.

Shallow Water Assessment – Guidance for coordinators



Shallow water assessment takes place before every snorkel in the shallows. It's a time to take a breath and check everyone is good before heading off on a snorkel tour.

Supervisors work with their buddy groups to ensure they can breath through snorkel and are relaxed in the water. For younger groups they do this by lying over the front of the board, for older groups, 1 hand on the board.

This is where supervisors are instructed to help adjust mask straps and ensure all gear is fitted before the snorkel tour starts.

Coordinators assess the supervisors and make sure appropriately buddied up, some changes might happen here - some supervisors might be switched to being participants only. Ensure a strong ratio with competent supervisors. Reserve the right to advise a non-confident swimming adult to stay behind.

If you have spare supervisors - ensure they take a board with them so they can support the other supervisors by splitting groups up if needed, such as if a buddy gets cold and has to go in early.

Sometimes there might be participants that stay in the shallows only - set a boundary for shallow water area, anyone staying in shallows must be supervised by a competent supervisor and check in and out/safety watch person from shore.

Add an asterisk to the check in and out form if a participant and supervisor is staying in the shallows.

2.13 Special events and ancillary service (e.g. transport)

For events such as the Community Guided Snorkel Days (see appendix) or snorkelling at remote locations, detailed snorkel or event plans are to be completed. These plans should take into careful consideration the use of vessels for transport and or supervision. The snorkel or event plan must be developed specific to that site and the use of the ancillary service, if deemed appropriate for that site. Particular attention must be paid to the hazard of boat propellers and around the communication between the skipper and participants in the water, communications around staying clear of engine propellers and the vessel. During a supervising role, lanyards must be worn at all times.

All skippers must adhere to the responsibilities identified on the Maritime NZ Website and including but not limited to:

- Every boat has to have the right sized lifejacket for each person on board, and for boats under 6 metres they have to be worn unless the skipper decides that the risk is very low at the time;
- Get a marine weather forecast before you head out and listen for regular updates while you are out;
- Carry at least two means of communicating distress on you, and for boats under 6 metres, these need to withstand immersion;
- Leave details of your trip and boat with a responsible person ashore, detailing where you are going, how many people you have on board, and when you expect to return;
- If you have a VHF radio, make a trip report and stay in contact with Maritime Radio, or the local Coast Guard or marine radio service;
- Avoid alcohol – alcohol impairs judgement and the ability to survive in an emergency.

Any use of an ancillary service must be included in participant safety briefings and site specific RAMS. The role and responsibility of the vessel must be made clear during briefings and checklists.

The dangers of diving around powered craft are primarily related to injuries caused by being hit by a boat or a boat's propeller. Ensure dive boats use signals, lookouts and other systems to indicate that divers are in the water as per MNZ rule 91, including using light signals at night.

Do not assume others will see or understand signals. Ensure the dive look-out understands that they play a crucial role in managing the dangers of other users at the dive site and actively attracts their attention when required. Be particularly aware of users who may not understand dive signals such as jet skiers and other recreational craft.

Consider the visibility of signals when choosing the dive site, the position of the boat, vessel or platform and of participants in the water— consider using support stays in signal flags.

Ensure there are procedures in place to manage this risk and that they include the preference for propellers to be disengaged when divers are entering or exiting the water or otherwise near the propeller area.


Ensure that procedures include:

- a. Master of a vessels having a clear visual of the propeller area and snorkel entry and exit route, or using one designated person to watch this area and communicate to the snorkelers, including using signals for when divers are clear to approach or leave the boat on-board crew having designated responsibilities on who is able to signal divers to approach or leave the boat, the dive team knowing who this is, and this person having direct communication with the skipper — for smaller craft this may be the skipper themselves emphasise the importance of these systems during staff training and participant briefings.

In some instances propellers will need to be on then disengaged at the last second, such as when manoeuvring the boat to collect divers in difficult conditions or emergency scenarios. Brief participants on these scenarios and emphasise the importance of the use of signals for when to approach or leave the boat.

Clearing anchors can require a diver in the water managing the anchor while the propeller is on. This can involve a high risk of injury. Do not use participants to carry out this task. Ideally do not do this with staff either. The preferred method is to drop the anchor (commercial boats are required to carry a spare) and move away while staff manage the situation under water.

2.14 Post activity

Post activity notes recorded on pre-site assessment form and logged via the  MTS Activity Log - QR CODE.pdf within 5 days of activity . Relevant free lessons are shared with Poutokomanawa/co-director (marine lead).

Section 3 – Emergency preparedness and response plans

3.1 Introduction

This section sets out how we prepare for and respond to an emergency. The purpose of our structured emergency preparedness and response plan is to:

- Preserve life and property, and prevent further loss in an emergency situation;
- Provide guidance, so we know what to do in an emergency situation.

3.2 Emergency policies

- Potential emergency situations will be identified;
- Responsibilities and procedures to be followed in an emergency will be identified;
- Contractors/coordinators are involved in the development of emergency procedures;
- Adequate first aid supplies are available to all employees and participants;
- All staff receive training and information in relevant emergency procedures;
- In the event of an emergency, top management is to be informed as soon as practicable;
- Top management has sole authority for communication with the media.

3.3 Responding to emergencies

Emergency Response Guides have been developed for the following emergency situations


In the field (land based)

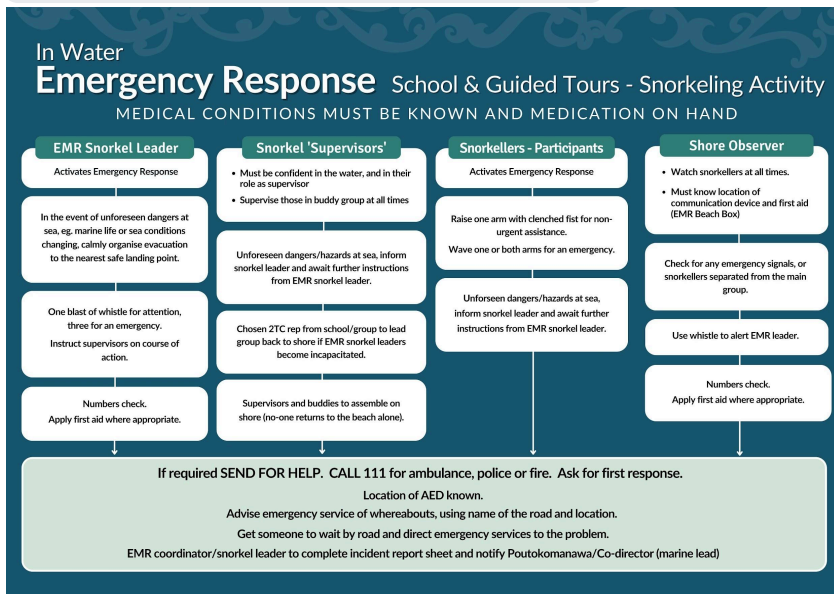
In the event of an emergency the following generally will happen

- Prevention of harm to all persons on site;
- Raise the alarm (notify all other persons on site);
- Contact emergency services on 111;
- Do not put yourself or anyone else at any unnecessary risk;
- Evacuate from building or area;
- Assemble all personnel immediately at a designated meeting point;
- Check all persons are accounted for;
- Contact the Department of Conservation, other relevant land manager or owner.

In the water

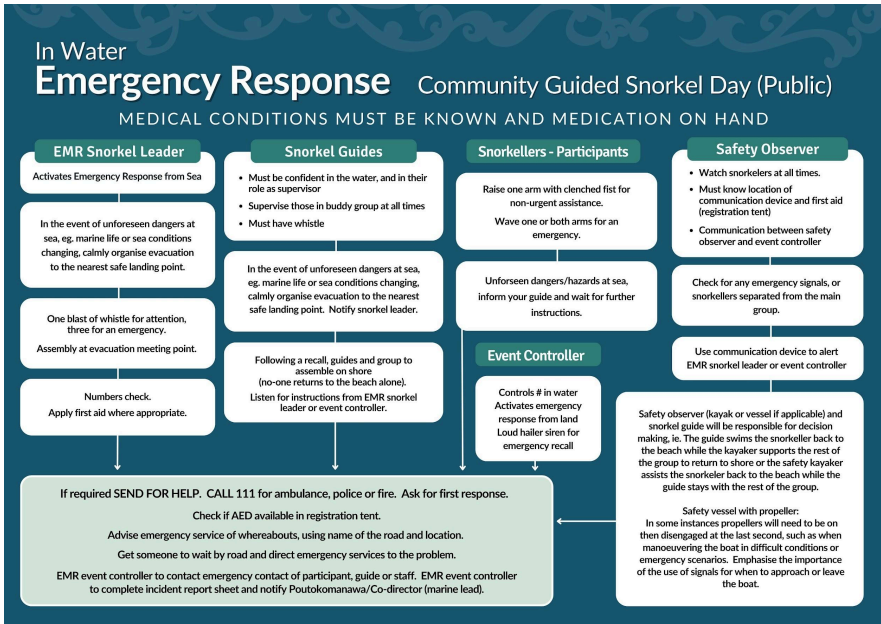
Emergency response procedure – schools and guided tours

 In water emergency response_schools.jpg



Emergency response procedure - community guided snorkel day

 In water emergency response - snorkel days .jpg



Site specific emergency procedures

Any additional site specific emergency procedures for an activity are included with the RAMs (RAF) Part A and field trip briefings for the activity.

[W EMR Site Specific RAF \(RAMs\) and Emergency Procedure 2023 - PART 1.docx](#)

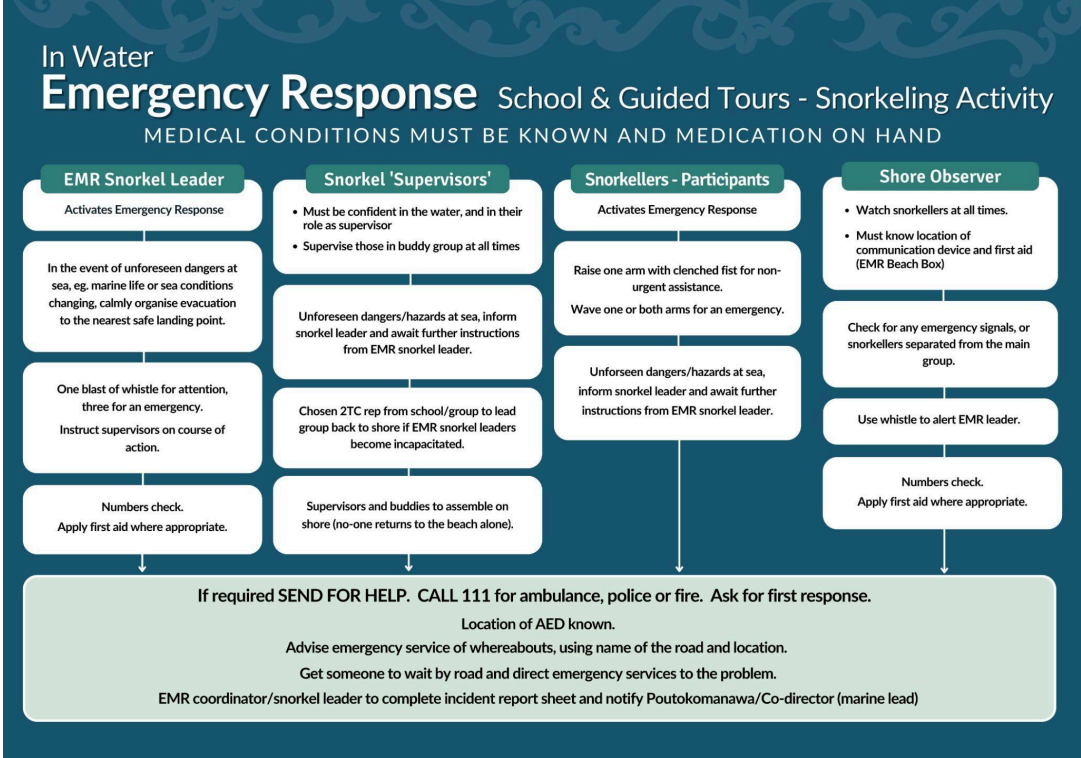
3.4 Emergency Procedures

[PDF 2024 MTS Emergency Procedures.pdf](#)

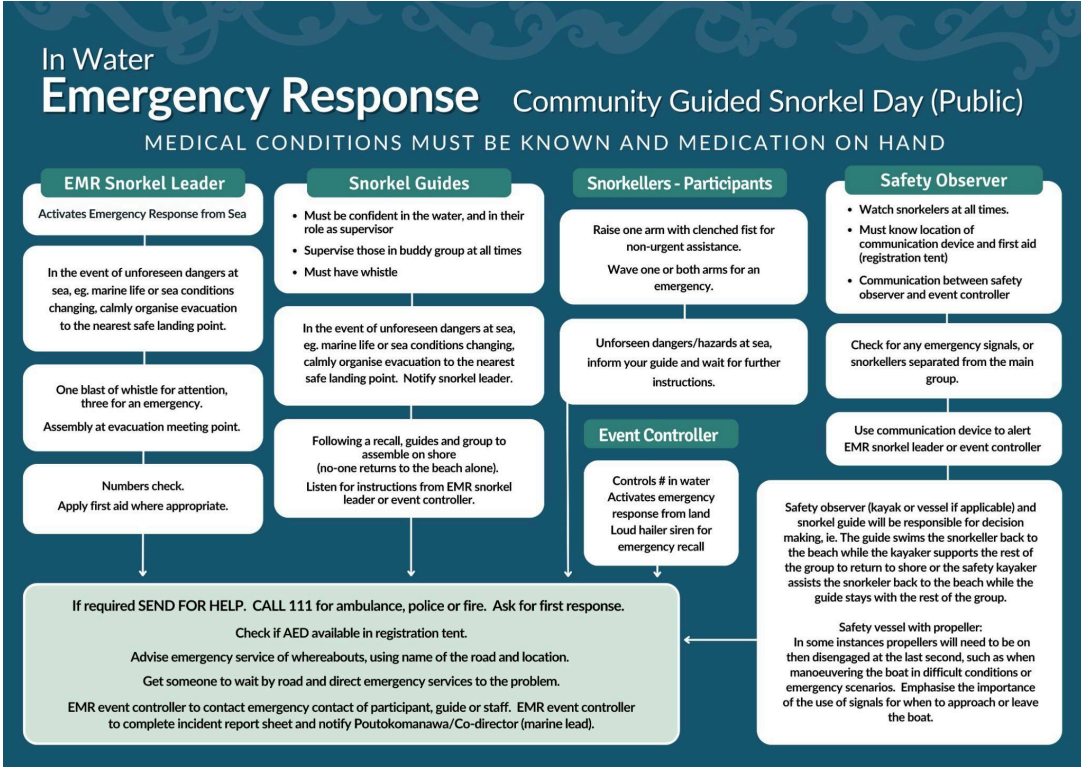
Emergency ‘In water’ procedure

As outlined in the following diagrams

[In water emergency response_schools.jpg](#)



In water emergency response - snorkel days .jpg



3.5 Emergency preparedness

Emergency response plans will be known by staff and are made available to participants and other relevant parties.

It is the responsibility of Event and Snorkel Coordinators to carry appropriate safety equipment (outlined in appendix gear list), mobile phone/or know the location of nearest landline, and up to date weather information as in the snorkel checklist (appendix). Staff requirements will be reviewed with SMS annual reviews, led by the Poutokomanawa/co-director (marine lead.)

Objective – To look after the wellbeing of, and provide support to, the people involved (participants, staff and others), to respond professionally and to protect our reputation and brand.

1. Secure the safety of all participants by securing the site
2. Stabilising the situation and accounting for all staff and participants
3. Assigning responsibility and authority for implementing the plans (see emergency procedures diagram), including who must notify emergency services and when;
4. Rescue or evacuation of people involved in the activity

3.6 Emergency training

All new staff will receive emergency procedures information as part of their induction.

Emergency training happens at our annual wananga, including practising scenarios. This training is recorded and evaluated. Emergency procedures will be reviewed after training, practice and actual emergency events. Activity specific emergency procedures are practised at least annually based on scenarios and recorded in team meeting minutes. Emergency preparedness in the regions is recorded via regional internal H & S meetings. Dedicated emergency preparedness team discussion/training via zoom will happen at least annually

The Co-Directors will debrief and review the emergency situation, preferably on site and within 24 hours. This debrief is separate from any investigation into the cause of the emergency situation.

An external support group provides support and counselling (including critical incident stress debriefing if required) to staff, participants and families. Top management will deal with difficult and upsetting situations. They should be provided with/have access to counselling during and after the incident.

Following the incident, it is important to openly acknowledge the contributions of people involved, and both management and staff should be supported to develop realistic return to work strategies.

3.7 Follow Up

The Programme National Coordinator will debrief and review the emergency situation, preferably on site and within 24 hours. This debrief is separate from any investigation into the cause of the emergency situation.

An external support group provides support and counselling (including critical incident stress debriefing if required) to staff, participants and families. Top management will deal with difficult and upsetting situations. They should be provided with/ have access to counselling during and after the incident.

Following the incident, it is important to openly acknowledge the contributions of people involved, and both management and staff should be supported to develop realistic return to work strategies.

3.8 Media response

Where any incident occurs, how we deal with the media can have significant repercussions on subsequent investigations into the cause of the incident, determination of liability etc.

When working with school groups, the principal should respond on the schools behalf and the chairperson is to respond to the media on behalf of MTSCCT.

Appendix 1 | Snorkelling SOP's


1.1 Equipment

Every time a piece of gear or equipment is used, it is inspected. Repair occurs either immediately on site or through a suitable repair facility. Faults and repairs are documented in the equipment register. If any piece of gear or equipment is no longer able to be used, it is disposed of. Any hire equipment is also checked that it is fit for purpose.

Staff may only use clothing and equipment that are fit for purpose. Whenever possible, programme t-shirts are worn and coordinators are responsible for having all the equipment they need to perform the operations of their contracts, such as wetsuits, mask, snorkel, fins and a dive knife.

Participants

Participants are aware of the clothing and equipment required and are suitably clothed and/or equipped for the activity. This is apparent on permission letters as part of the EMR manual and SOP.

 2024 EMR School Permission Form - TEMPLATE

See example below


Your child will need the following items


- A big packed lunch
- Plenty to drink
- Sun hat & Sunscreen
- Togs and towel (wetsuits and snorkelling gear are supplied, but need to wear their own togs underneath)
- Aqua boots (optional)
- A good pair of shoes for walking on rocks
- Warm jersey for on beach and after their swim
- Pen, pencil, ruler and rubber (for on shore activities)

Coordinators check for appropriate equipment before programme commencement, such as wetsuits, as it is a requirement that all students wear wetsuits for snorkel activities in open water. Staff have the authority to refuse to accept the participant in the activity if they are inadequately clothed and/or equipped.

Activity equipment lists

Activity equipment lists for each programme are included in each programme role description.

 2024 EMR Equipment Checklist - Snorkel Delivery.pdf

 2024 EMR Snorkel Day Equipment Checklist.pdf

EMR BEACH BOX CONTENTS

- Laminated briefing checklists
- Snorkel RAMS & Emergency procedure'
- Personal emergency profile
- First Aid Kit – refer to google drive for recommended contents
- Cell phone
- ID charts and books
- Volunteer & incident report forms


- Pre-snorkel risk assessment forms
- Printed itineraries
- Personal dive knife
- Supervisor forms
- Medical Shears
- Pocket mask – in certain remote situations or busy public snorkel days – these might be carried by coordinator or safety vessel
- Barley sugars
- Binoculars – recommended

Additional equipment for public Community Guided Snorkel Day Events

- Loud Hailer
- VHF radio (VHF radio operators must have completed a VHF radio course)

FIRST AID KITS

Requirements for use and supply of first aid kits are detailed in the relevant school agreements and programme manuals. Activity leaders and programme coordinators carry first aid kits for each field activity as a standard requirement.


 [2024 MTS Equipment Checklist - First Aid Contents.pdf](#)

Non first aid (personal) items for EMR beach box/pack


- Panadol
- Tampons/pads
- Antihistamine
- Eye wash
- Inhaler (if applicable)

1.2 Briefings

School Briefings

 [2024 EMR School Snorkel Briefing.pdf](#)

Snorkel Day briefings

 [2024 EMR Snorkel Day Briefing.pdf](#)

1.3 Supervisor Checklist

PDF EMR Adult Supervisor Graphic.pdf

The graphic is titled "Adult Supervisor GUIDE/CHECKLIST" and is part of the "Experiencing Marine Reserves Te Kura Moana" program. It is divided into several sections:

- Each snorkeler should have:**
 - Mask and Snorkel
 - Fins Wetsuit
 - Hoods (for colder waters)
 - Warning: Make sure all gear is fit for purpose before entering the water
- Using the body board:**
 - Always stay one arm's length from each other and board
 - Use the one up one down rule for duck diving
 - No one to return to beach alone
- Emergency Signals:**
 - One arm straight up: = "I need assistance"
 - One/both arms waving: = "Emergency, I need immediate help"
- Whistles:**
 - 1 Blast = STOP for instructions
 - 3 Blasts = EMERGENCY! Listen for instructions, evacuate out of the water quickly and safely

At the bottom, it says "FIND OUT MORE INFORMATION AT: www.emr.org.nz".

Always remember to:

- Introduce yourself
- Go through hand signals
- Check experience/medical
- Follow EMR snorkel leader instructions
- Be kaitiaki/guardians and look after all marine life
- Check in and out of the water with safety observer
- Check group not getting cold
- Supervise buddy group at all times
- Be alert for dynamic hazards
- Check group understands instructions

A yellow diamond-shaped sign with the text "SAFETY FIRST" is also visible on the right side of the graphic.

1.4 Check In & Out Form

PDF 2024 EMR Check in and out.pdf

1.5 Parent and supervisor form

PDF 2024 EMR Supervisor Form.pdf

1.6 Student Permission

2024 EMR School Permission Form - TEMPLATE

1.7 Quick Field Checklist

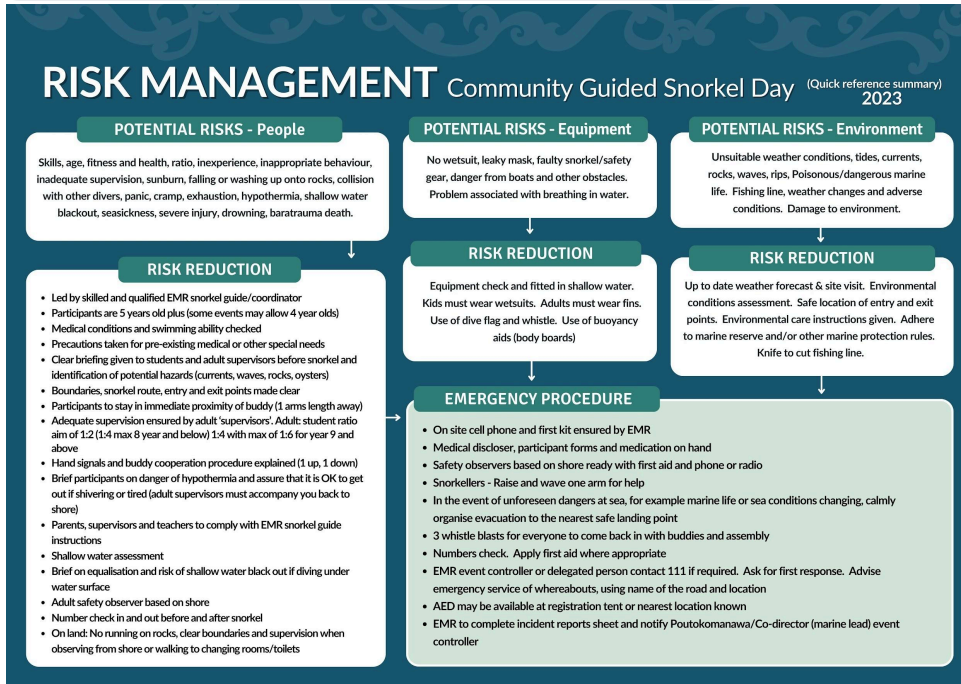
EMR Coordinator In-Field Quick Checklist

- Site specific RAFS and Itinerary available online or hardcopy

- Check you have all the gear required and fit for purpose
- Complete pre snorkel operation risk assessment form (includes water quality and weather assessment)
- Complete participant, supervisor and shore observer briefings
- Seek completion of participant and supervisor form and any volunteer forms complete
- Ensure adequate ratio
- 1:2 supervisor to participant (with a maximum ratio of 1:4 for year 8 and below, adapt ratio to conditions, age, skills of students and/or supervisors).
- For year 9 students and above, the EMR ratio recommendation is 1:4 (with a maximum of 1:6).
- EMR check in and out form complete
- Screen your supervisors and volunteers competence in shallow water
- Ensure all student participants have appropriate equipment (e.g. wearing wetsuits)
- Ensure all adult supervisors have appropriate equipment and check equipment of those providing their own
- Maintain control of the group throughout snorkel
- Check off on EMR Check in and out form
- Complete post activity review on end of pre snorkel risk assessment form

1.8 Quick reference RAMS Diagram for community events


Risk management quick reference_snorkel days.jpg




1.9 Pre Site Assessment - Pre snorkel operation risk assessment form


PDF 2024 EMR Pre-site.pdf

1.10 Water Quality

 2024 MTSCT Water Assessment Policy.pdf


Document ALL decisions regarding weather or water quality on a pre site assessment form  2024 EMR Pre-site.pdf.

1.11 Sanitisation Policy

 2024 MTSCT Sanitisation Policy.pdf

Appendix 2 | Snorkel day roles


Refer to Community Guided Snorkel/Kayak/SUP Day event plan template

 2024 MTS Event template

Event plan should include:

- Project goals and event details
- How you will promote the event
- Sponsors and partners
- Event leadership
- Insurance and H & S info
- Roles for the day (see below)
- Overlapping duties of care – agreed to and signed by multiple agencies in safety sensitive roles
- Caring for your volunteer team (what you will provide and reminder about taking breaks, staying hydrated and adequate sun protection)
- Organisational notes/tasks
- Snorkel site info and Community Guided Snorkel Day RAMS diagram
- Briefing checklist
- Emergency response diagram for snorkel days
- Registration form
- Pre- site assessment
- Volunteer information and rating (completed on the day of the event)

Community Guided Snorkel Day Roles

 2024 EMR Snorkel Day Roles .pdf

Role of Experiencing Marine Reserves programme provider

Provide overall management, snorkel leadership and equipment for the event. On the morning of the event, all guides (volunteers) must be fully briefed separately from event participants. Rating procedure for volunteers. Event controller to screen competency with support from experienced guides. Volunteer staff must have signed the volunteer form.

Participants must first register (once registered, we are looking after them, so tell them not to go far, a waiting list might be required). Participants read the laminated blown up RAMs sheet and disclose any medical conditions on the registration form. The family name of the group will go onto a whiteboard next to the designated guide name (with a in water and out water column) along with guide name on the registration form, so that the registration people and event controller knows when a guide is available and number of participants in the water at all times).


Assigned guide to help get group ready and fitted into equipment (if things are really busy, don't worry about completing gear hire information, just make sure guide knows to tell group to return gear as soon as back) Any medical info or swimming ability (or any information of relevance) info is passed on the designated guide. Guide also asks discreetly.

Management notes for medical conditions recorded on back of registration form or via online registration planning notes

Instructions for care of the gear are given by the guide, i.e. no sitting on rocks, no squeezing on gear, no throwing gear and gear must be returned to gear tent as soon as guided snorkel finished for others to use. When things get very busy the name of the guide may also be written on the participant's hand.

Snorkel guide notifies the registration team once ready to enter the water and a time is written on the board. Guides check back in with the tent and confirm the total number of people that are back when they come back in. Gear is given back to tent and ticked off as returned on registration tent and gear ticked off as returned.

Make sure you plan to give your guides and safety watch people etc. a break.

 2024 EMR Snorkel Day Organisational Notes.pdf

Volunteer and leadership positions

Event leader (controller)

Activates emergency response, is in control with overall numbers in water on day and briefing volunteers and staff. Assigns snorkel guide to appropriate group. Prints the event plan and writes appropriate notes and names next to roles. Sets rules for the day, for example requesting all adults to also wear wetsuits, when assessed necessary by event controller (e.g. in colder waters)

Water based snorkel guides

Volunteer guides will each take a small group of the public (maximum 6), assisting them to snorkel and identify the fish they see. The groups will keep close to the shore on the whole and sessions will last about 20 minutes. Volunteer guides will do 2 - 3 sessions then take a break. A kayak or other safety watch might support the groups and a full briefing will be held before the event. You will need to be an experienced snorkeler i.e. comfortable in the marine environment and have the ability to look after the group, plus a basic knowledge of what you're likely to see in the way of fish and other marine life. Able to follow instructions, fit and healthy and free from the influence of drugs or alcohol.

Water based safety kayak support (if appropriate)

Volunteers to provide support to the snorkelling groups and guides from kayaks i.e. making sure snorkelers don't stray off from their groups or too far from the shore. Again, volunteer kayakers will do 2-3 sessions then take a break. If you don't have your own kayak, we can provide one. You will need to be an experienced kayaker. Able to follow instructions, fit and healthy and free from the influence of drugs or alcohol. **Kayak ability may be tested on the day of the event.**

Land based volunteers

Land based volunteers will help to register and kit out the people attending, plus retrieve gear, talk to people about the reserve etc. Less special skills or experience is needed for this job, only to be able to follow instructions and free from the influence of drugs or alcohol.

Shore Watch

Watch snorkelers at all times. Checks for any emergency signals or a member of the group separated from the main group. Able to follow instructions and free from the influence of drugs or alcohol. See In water emergency response plan.

Volunteer Ratings

Senior guide

Proven capability (previous events or training attended) or adequate qualifications (dive master etc), experience and knowledge of area.

Assistant guide

Working with a senior guide, could have additional ratio or bring people back to shore

Trainee guide

Working under direct supervision of a senior guide – no additional ratio

Land based

Assists in registration tent and helps gear, evaluation or shore based spotter.


Vessel operator (safety watch)


Provide effective lookout for in-water activities and hazards (via boat or kayak). Can identify dive and relevant maritime signals. Has good visual scanning skills. Able to follow instructions and free from the influence of drugs or alcohol. Can identify entry and exit hazards including those related to propellers. In some instances propellers will need to be on then disengaged at the last second, such as when manoeuvring the boat to collect divers in difficult conditions or emergency scenarios. Brief participants on these scenarios and emphasise the importance of the use of signals for when to approach or leave the boat. See emergency plan.

Note: There should always be someone on safety watch, whether it is the shore watch or the vessel operator. If the vessel operation is called away for any reason, a shore watch will

take over. If the entry into the water is some distance from the registration tent, a check in and out person should be assigned close to the shore.

Refer to MTSCT Code of conduct

 2024 MTS Code of Conduct.pdf

 2024 EMR Volunteer Registration - If not using online form.pdf

To be completed on the day and signed by volunteers (who have already completed volunteer form on-line).

Name	Date	Role	Email	Mobile	Dietary Requirements	Medical Conditions? (event organisers - please black out anything personal)	Emergency Contact Name	Relationship	Emergency contact number	Terms acknowledged Sign	Rating
1											
2											
3											
4											
5											

Appendix 3 | Snorkel Guidelines

The Experiencing Marine Reserves (EMR) programme is exactly what the name implies. It is about experiencing, first hand, the difference between local beaches and fully protected marine reserve areas. Snorkelling enables an insight into the marine world. Even standing in waist deep water looking about with a mask on is an experience!

EMR Snorkelling Objectives

- Experience marine life first hand
- Build water safety & confidence in the real environment
- Encourage snorkelling as a recreational and fun activity
- Instil caring attitudes and passion for the conservation of the ocean
- Encourage emotional connection to marine environment

Outline

The first part of the EMR programme is learning about the marine environment in the classroom (depending on extent of EMR programme participation). If possible, it is encouraged to practise snorkelling in the school pool with an EMR snorkel leader/coordinator, confident teacher or New Zealand Underwater Mini Dippers trainer.

The third stage is an introductory snorkel in shallow water at the local beach (dependant on extent of EMR programme participation). Your EMR coordinator will have already snorkelled at your local beach (or have previous experiences or confidence in the area) and will have identified any hazards or risks.

After your local investigation or snorkel, you will then experience a marine reserve (depending on extent of EMR programme participation).

The EMR Team

EMR is delivered by a team of passionate coordinators nationwide. EMR coordinators/snorkel leaders offer guidance, direction and coordination of classroom exercises and field trips to the ocean. We also provide snorkel equipment, instruction, resources and snorkel risk management.

To find out more about our team of regional coordinators visit our website www.mountaintosea.org.nz/team

Health and Safety

Experiencing Marine Reserves (EMR) is a programme of the Mountains to Sea Conservation Trust. We are a registered adventure activity. Regulation 6(1) of the Health and Safety at Work Act (Adventure Activities) Regulations 2016 (the Regulations). For confirmation of our registration go to www.worksafe.govt.nz

Training the snorks

Some background information for snorkelers.

Equipment

Wetsuits are essential for your safety and warmth. Please take care when fitting wetsuits, and ease the suit on – do not pull. Your mask should feel comfortable and water-tight. A

good test is to place the mask on your face (without straps) and inhale gently through your nose. If the mask fits well it will cling to your face.

Your snorkel allows you to breathe while you are swimming on top of the water. A mask places a layer of air between your eyes and the water and allows you to see clearly. When using a mask objects appear to be larger and closer.

Snorkels have a soft mouthpiece with tags called spigots for you to grip with your teeth while breathing. The fins help us to propel ourselves through the water. Never walk with your fins on land, as this is a recipe for disaster. Remember to use de-fog rather than spit (unless it is your own mask) to stop your mask fogging up before entering the water.

Toothpaste should be used to clean off chemical residue on new masks before use. Your own gear should be maintained by rinsing in freshwater after use. For EMR gear refer to the EMR gear care and sanitisation policy on our website <http://www.emr.org.nz>

Body boards are used by EMR as buoyancy aids and for additional visibility. There should be 1 body board per buddy group. Staff running any activity have the authority to cease an activity for any safety reason.

Sound

Sound travels much faster underwater than on land (4 times faster), and this increased speed makes the direction of the sound difficult to determine. This means that the snorkeler must be very aware of boats. Use of a dive flag helps your buddy group to be visible to boats.

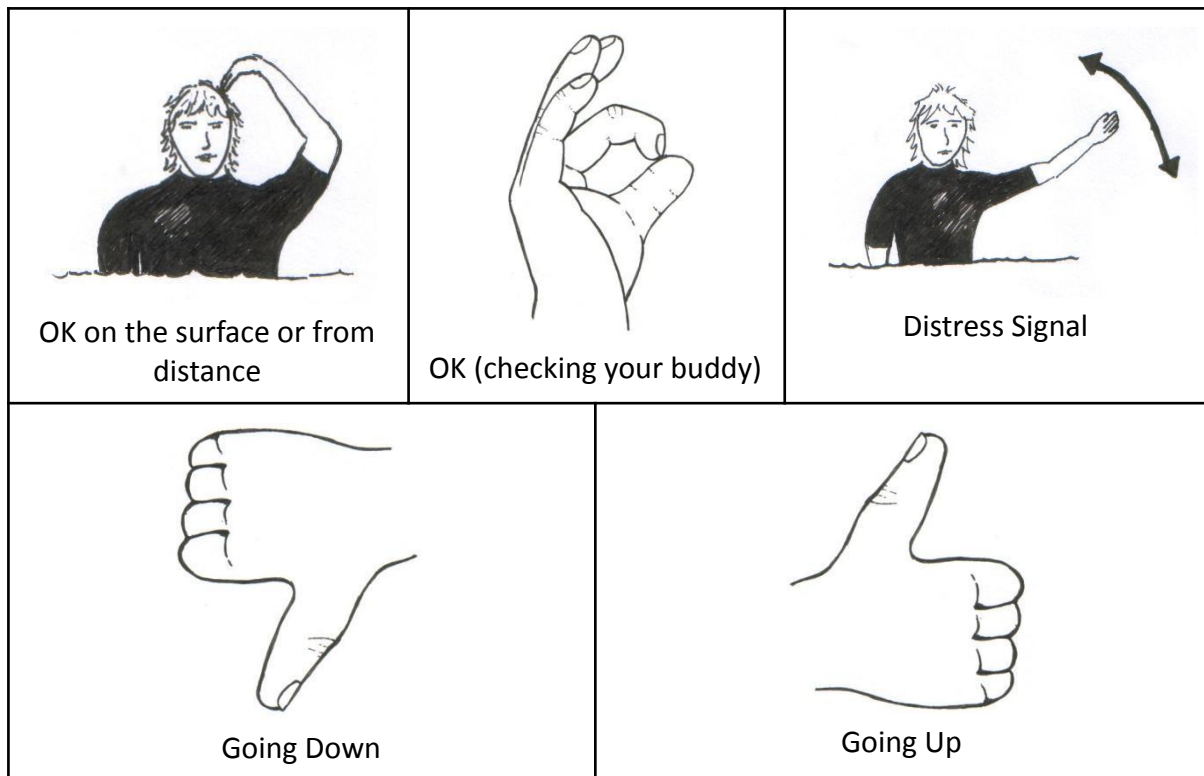
Movement

The best way to move through the water while snorkelling is to float face-down while breathing through your snorkel. Fin kicks should be slow, steady and even. Try not to thrash around, as you may scare the fish! Your hands are best by your side to conserve energy.

Temperature

An hour in the water is like a day in air of the same temperature! As we lose heat much faster in the water, it is very important to get out of the water if you begin to shiver.

Communication – hand signals!



Buoyancy

When objects are placed in the water, they will usually sink or float. When a snorkeler is placed in water, the snorkeler will displace a volume of water equal to the volume of the person immersed. The upthrust is the force pushing us up. When the upthrust is greater than the mass of the object it will float and be positively buoyant (e.g., a wetsuit makes more volume and displaces more water).

When equal to the mass of the object, it will just float on the surface and will have neutral buoyancy (e.g., when a snorkel diver has no wetsuit). When less than the weight of the object, the snorkeler is said to have negative buoyancy and sinks (e.g. a snorkeler with no wetsuit and a weight belt).

When we wear a wetsuit, it makes us positively buoyant. Weight belts can be used to counter this effect (e.g., you put on a wetsuit in air on the surface and weigh 61 kg and when immersed in water you displace 64 litres of water, the volume and the mass of water displaced (upthrust) would be 64kg, so the snorkeler would float.

To counter this we add 3 kg of weight to make up the difference in air (61kg) and water (64kg), this would theoretically make the snorkeler neutrally buoyant. By using a wetsuit with a weight belt snorkelers are able to stay warm whilst enabling diving underwater to look around.

Wetsuits also protect us from abrasions and the sun. We aim to have neutral or slightly positive buoyancy so we can stay on the surface with minimal energy while also allowing

you to snorkel dive easily. When buoyancy is neutral, the diver should float on the surface when the lungs are full of air, then slowly sink as they exhale. We must always check ourselves for neutral buoyancy upon entering the water and adjust our weight belt accordingly.

If you notice a diver struggling to reach the surface, the first thing to do is remove their weight belt.

When teaching students or novices, we must ensure they are positively buoyant so they will tend to float rather than sink, making them much safer. We do this by getting them to wear a wetsuit but NO weight belt, unless specific training is delivered in the pool prior to open water for year 8's and below or if the weight belt belongs to the student and they are supervised by their parent

Buddy System

When snorkelling, we must always go with a buddy. The EMR programme recommends a ratio of 1:2 (one adult supervisor to two students) for year 8's and below. You must stay one arm's length from your student and adult buddies. In your buddy group, your adult supervisor will have a buoyancy device (body board), this allows you to hang over the front and get used to seeing and breathing through your mask and snorkel. The body board can be used for resting on or holding on to keep your group together. The use of body boards also makes EMR buddy groups identifiable. Refer to EMR SOP for snorkelling

Diving down while snorkelling

Indicate to your buddy that you are going down using the signals, take a deep breath, duck dive underwater (head first), kick your legs into the air and use your legs and body weight to force you down. Equalise on your way down and point your hand up on return on the way up to avoid collisions.

The best way to clear your snorkel is to use the blast method when you reach the surface. To do this you must hold your tongue over the mouthpiece while duck diving and then take your tongue out of the mouthpiece and blow! Always take a cautious breath after clearing your snorkel, in case you did not clear all the water.

If you have water in your mask this can be cleared without taking it off. By using the top of the mask as a hinge and the bottom as a door, tilt your head back and open the door to let water out while exhaling at the same time.

Buddy Cooperation

When snorkelling with your buddy, it is important for you to watch out for each other. While one duck dives down the other keeps watch from the surface and vice versa. This is called the 'one up one down' rule.

Practise your going down hand signals with each other. Make sure you stay together - within one arm's length. Inform your adult buddy if one of you is getting cold. If one person needs to go back to the beach, then the whole buddy group must go back. Never snorkel alone!

Treatment of incidents in relation to snorkel diving

All EMR coordinators are qualified First Aiders. The most recent information from First Aid trainers should apply to the information below.

Priority action plans include SRABCS – Safety, Response, Airway, Breathing, Circulation, and Severe Bleeding.

Pressure related injuries or Barotraumas

When diving down under the water the pressure increases, which in turn increases pressure on the eardrum. Air in the middle ear is trapped and can expand and contract inside the ear, causing pain in your ear drum. Therefore, we must 'equalise' the pressure. You can equalise by pinching your nose and gently blowing. Pressure can also cause a face mask 'squeeze'.

Blowing gently into your mask will also equalise the air space between your eyes and the water. Never snorkel with swim goggles, as these cannot be equalised and can cause serious damage to your eyes.

Equalisation can also be achieved by swallowing or wiggling your jaw or moving your neck.

Tilting the head back, yawning and moving the jaw around may also help as it will open the Eustachian tube more, making equalising easier. Chewing menthol gum before a dive can help as it also opens the Eustachian tube.

If pain persists when you dive down, then you should stay on the surface of the water. It is also important not to dive under if you have a cold, as this blocks the ear and makes equalisation difficult. Always equalise on your way down gently – never blow hard and do not equalise on your way back up.

First aid treatment for barotraumas involves keeping passages unblocked. If ear bleeding occurs, lay the patient down, cover the ears (but do not plug), help the patient to relax and call for medical assistance.

Allergies

Mild to moderate allergic reaction

Swelling of lips, face, eyes. Hives or welts, tingling mouth abdominal pain or vomiting Last two are signs of anaphylaxis for insect allergy)

Action

For insect allergy, flick out sting if visible

Stay with the person and call for help. Give other medications (if prescribed), Phone family or emergency contact

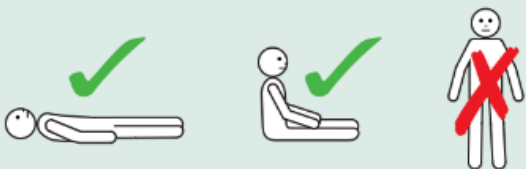
Anaphylaxis - severe allergic reaction

Watch for any one of the following signs of anaphylaxis

- Difficult/noisy breathing
- Swelling of tongue
- Swelling/tightness in throat
- Wheeze or persistent cough
- Difficulty talking and /or in hoarse voice
- Persistent dizziness or collapse
- Pale and floppy (young children)

ACTION FOR ANAPHYLAXIS

1 Lay person flat - do NOT allow them to stand or walk
- If unconscious, place in recovery position
- If breathing is difficult allow them to sit



2 Give adrenaline (epinephrine) autoinjector if available
3 Phone ambulance - 000 (AU) or 111 (NZ)
4 Phone family/emergency contact
5 Transfer person to hospital for at least 4 hours of observation

If in doubt give adrenaline autoinjector
Commence CPR at any time if person is unresponsive and not breathing normally

ALWAYS give adrenaline autoinjector FIRST if available, and then asthma reliever puffer if someone with known asthma and allergy to food, insects or medication has **SUDDEN BREATHING DIFFICULTY** (including wheeze, persistent cough or hoarse voice) even if there are no skin symptoms

Hypothermia

Hypothermia results when the core body temperature drops to a level it cannot recover from (below 35°C). If exposed for an extended period, cold water temperatures can cause hypothermia while snorkelling.

Symptoms include: intense shivering, numbness, slurring of words, loss of coordination, stumbling, clumsiness and changes in behaviour – anxious, irritable, and irrational. While snorkelling, the chances of hypothermia are much reduced by wearing a suitable wetsuit for the water temperature. Typically 7% of our body heat is released from the head, a hood can increase time spent in the water. On land sufficient warm clothes should be worn.

If a person starts to feel cold or begins to shiver, they should exit the water immediately. Later more serious signs are when shivering stops and unconsciousness occurs. When the body drops below 26°C death occurs.

To treat hypothermia, move the patient to a dry, sheltered area and change them out of wet clothing into warm, dry clothes. Give the patient warm sweet liquids to drink if they can (not tea, coffee or alcohol). Avoid warming too quickly, swaddle the patient's head. Keep the person lying down and warm with blankets. If symptoms persist and patient shivering decreases or stops, contact emergency services. Severe hypothermia is a medical emergency. Monitor vital signs, CPR may be required. SRABCS – Safety, Response, Airway, Breathing, Circulation, Severe Bleeding.

Note: The **1-10-1** rule for hypothermia. I have found many people believe exercise warms the body up. This is the last thing they should be doing. Knowing this will help snorkel guides make correct assessments when they are actually in the water. This rule is for sudden immersion in cold water but I think it is relevant to us, as hypothermia can set in without anyone realising until the situation becomes a problem.

<https://nationalwatersafetycongress.wildapricot.org/1-10-1>

Hyperthermia

Hyperthermia is the opposite of hypothermia and results when the body produces or absorbs more heat than it dissipates. It is caused by excessive exposure to heat. Body temperatures above 40°C can be life threatening and while serious hyperthermia can come on quickly, it usually follows a period of heat exhaustion.

Symptoms of hyperthermia initially include sweating profusely but serious hyperthermia occurs when the body is no longer able to sweat due to dehydration. Patients with hyperthermia often become confused or hostile and experience headaches. Blood pressure often drops which can lead to dizziness and fainting.

In serious cases, patients may encounter chills and trembling and children may suffer convulsions. Hyperthermia can be prevented by drinking plenty of liquids and keeping out of direct sunlight during the hottest parts of the day. Wetsuits should only be worn just before you enter the water, not for extended periods of time on land.

SRABCS – Safety, Response, Airway, Breathing, Circulation, Severe Bleeding.

Treatment for hyperthermia revolves around lowering the body temperature and rehydrating the patient. Moving the victim to a cool place and removing clothing can help, but in serious cases immersing the patient in cold water is necessary. Once in a cool area, place the victim in the recovery position and contact emergency services.

Hyperventilation and shallow water blackout

Hyperventilation is sometimes used during breath-hold diving to expel carbon dioxide from the body, reducing the urge to breathe and allowing a diver to stay underwater for longer periods of time. This method is dangerous and can cause shallow water black out where a diver loses consciousness when the body does not get enough oxygen. Shallow water blackouts are avoided by not hyperventilating and allowing the body to accurately signal the need to breath. Relaxing at the surface and breathing constantly also reduces the chances of shallow water blackouts. You should always take turns at diving under so if your buddy blacks out you will see this happen.

Unconscious snorkeler

Notify your snorkel leader. Respond by bringing the diver back to the surface (if required), achieving positive buoyancy (by dropping weights if wearing a belt and using a buoyancy device). In-water resuscitation may improve survival of victims who are in the initial stages of the drowning sequence but delays time to full assessment and CPR.

Remove the victim from the water as soon as possible, and only begin in water rescue breathing if immediate removal from the water is delayed or impossible. Rescue breathing in deep water requires an appropriately trained rescuer and floatation aid such as a rescue board, tube or buoyancy vest. In water, chest compressions are ineffective and should not be attempted.

If consciousness is not returned, once on shore, remove the diver from the water, follow DRSABCD | **D**angers? **R**esponsive? **S**end for help. **O**pen Airway. Normal **B**reathing? Start **C**PR. **A**ttach Defibrillator (AED) as soon as available, follow prompts Continue CPR until responsiveness or normal breathing return

Any immersion event that is not symptomatic needs monitoring while in EMR duty of care and subsequent responsible persons advised to seek medical assessment.

Rescue tow techniques are covered in initial training of all coordinators as part of snorkel instructor training and at annual Mountains to Sea Wānanga conference and/or as part of EMR training courses.

Drowning

Drowning occurs when water enters the lungs. If someone has nearly drowned, it is likely they will be struggling to breathe if breathing hasn't already stopped. They may be frothing at the mouth and show little or no response. Make sure buoyancy is achieved and remove the patient from the water as soon as possible, and only begin in water rescue breathing if immediate removal from the water is delayed or impossible (as explained above).

Check for dangers to yourself and bystanders.

Check RESPONSE using voice and touch. If there is no response, call 111 and ask for AMBULANCE. Check airway: tilt head back and lift the chin. Check breathing: look for normal breathing. If not breathing normally, commence CPR. Place one hand in the centre of the chest. Give 30 chest compressions: HARD and FAST then give two breaths. Continue until the ambulance arrives. Attach AED (defibrillator) if available. Always remember 30 to 2 no matter who!

If patient conscious, keep them sitting up (on their side may also be appropriate) warm and reassured. A drowning casualty must be seen by a doctor as they may have water in their lungs. Call 111, for anyone with pale/bluish skin, especially around mouth, a persistent cough, shortness of breath, increased work of breathing, agitation or altered level of consciousness. Refer to ANZCOR Drowning Guideline

Note: Any immersion event that is not symptomatic needs monitoring while in EMR duty of care and participants involved advised to seek further medical assessment.

Minor aquatic injuries

Cuts and abrasions are common in a marine environment where there are many sharp rocks and marine life. Most minor aquatic injuries can be treated with your first aid kit for bumps, scrapes and stings. To treat a minor injury, get the patient safely out of the water. Keep the person warm and comfortable and monitor their condition.

Flush the wound with fresh water or saline and cover with a sterile dressing. Kina spikes are often difficult to remove using a splinter probe and tweezers. If there is any doubt about the person's condition, seek medical assistance.

Marine Life

Sharks

Some sharks may exhibit lack of fear and may approach snorkelers out of curiosity. Snorkel groups should stay close together at all times and within 1 arms length of the buddy group. If snorkelling in known shark territory (e.g.: Galapagos sharks in the Kermadec Islands) a minimum of 1 push stick per group is to be carried. If aggressive shark behaviour is displayed (watch for back arching and dropping of the pectoral fin, rapid movements towards snorkelers or build up of shark numbers throughout snorkel)- 3 whistle blasts to evacuate snorkel to nearest safe landing point.

Try not to get in between the shark and the reef, avoid getting in tight gullies. Someone who experiences panic should be evacuated with a buddy group. Avoid splashing. If anyone is cut they should abort with a buddy group. If an Oceanic white tip, tiger shark, Mako or great white shark were sighted the snorkel should be aborted

Jellyfish

The most common jelly stings you may come across are those of the blue bottle and lion's mane. Although not fatal in most cases, the sting causes severe pain and welts on the skin. Treatment should include warm water and application of a neutralising cream (stingose) for the blue bottle and cold packs are advised for the sting of a lion's mane jelly.

Rays

The barb/sting of rays are found on the base of the tail. They may be multiple and up to 30cm in length. In response to being disturbed, the barb/sting is driven with the point usually travelling forward and upward. The barb/sting is made of cartilage, as is the skeleton of the stingray. It has a barbed/serrated surface which is covered in a tissue-necrotic toxin in a mucous sheath. The sting can cause massive local trauma, while the toxin results in local necrosis and a great deal of pain.

Initial treatment of a wound should include stabilisation of any respiratory or cardiovascular compromise and local measures to reduce major blood loss (pressure, tourniquet) visible loose spine fragments should be removed from wounds immediately and the wound irrigated with saline. Placing the affected part in hot water as hot as can be tolerated (40-45 degrees C) for up to 45 minutes should be attempted. Pain relief may be rapid but is likely to be temporary if not heat treated for more than 30 minutes. Any large objects embedded in the skin such as a stingray barb or stake should be treated for bleeding, but left in place for medical professional to remove.

Scorpion fish

Dorsal spines can administer a very painful sting. Should be treated the same as rays, with heat.

Shock

Symptoms include-pale appearance, cold clammy skin, altered breathing (rapid and shallow), rapid weak pulse, faintness, nausea/vomiting, shaking and trembling.

Treatment- Call 111. Monitor the patient's breathing and pulse regularly. If the patient becomes unconscious, place them in a lateral position. Reassure the patient, and raise the leg about the level of the heart and keep warm. Give nothing by mouth, you can moisten the lips but do not give any food or drink.

Bleeding

Try at all times to wear gloves or avoid contact with blood.

Severe bleeding | Apply pressure, using a towel or anything to stop bleeding. Elevate the bleeding area. Rest the patient and treat for shock.

Bleeding from nose | Ask the patient to sit up, lean slightly forwards and pinch nostrils for 10 minutes breathing through mouth. Advise patients not to sniff or blow their nose. If persisting seek medical advice

Bleeding from lacerations | Control bleeding by pressure, elevation and rest. Clear the area of skin around the laceration and apply sterile dressing. Those with broken skin should check their tetanus injection records. Superficial foreign matter should be removed but anything deep should be left for a doctor. Large cuts may require stitching (medical assistance).

Cramps

A cramp is a painful muscle contraction often caused by cold temperatures or physical exertion. The affected muscle can be stretched and massaged to relieve the pain; your buddy may be able to help with this. You may require assistance getting back to shore (notify your snorkel instructor).

A good calf muscle stretch is to pull the end of your fin towards you gently while massaging the muscle with your other hand. Once on shore, drink plenty of water as

dehydration is one of the main causes of cramps. Drinking water before swimming and stretching muscles first can prevent cramps.

Exhaustion

Exhaustion often occurs due to excessive loss of body fluids and body salts. The person may suffer from headaches, dizziness, rapid breathing, feeling sick, muscle cramps, tiredness and restlessness. Assist the patient out of the water using a flotation device. Get the patient warm and dry but keep them out of direct sunlight. Give the patient energy, food and liquid and allow them to rest until they recover. If condition doesn't improve, seek medical assistance

Information for treatment of snorkel incidents compiled by Samara Nicholas and EMR regional coordinators.

Questions to ask if you have participants with diabetes

Do you get symptoms of low blood sugar?

If there is a child with type 1, without their parents you can ask what their main symptom of low blood sugar is, for example this can often be shaking hands, hyperactivity or quiet/non audible which are qualities most kids show when cold.

Have you checked your sugar recently? ask them to check before getting in the water. I make sure they know we can work around it if they aren't happy with their current levels.

Do you have any snacks with you? (if you have resources ,offer to take some out with you if they think they will need it. Normally at goat island this isn't needed, but a good consideration if, for some reason, you are covering a long distance in the water.)

Encourage them to bring snacks to the entry point/beach bag.

Also just pointing out if they needed to be towed back to the beach for feeling like they had low blood sugar, do not get them to kick haha.

If you are doing land based activities I would just again ask if they have any snacks on them and let them know the extent of activity e.g. if you will be walking quite far , how long you will be doing an activity for, in case they want to bring a snack/insulin with them.

Any participants we have had with diabetes have had their own snacks but if anyone wanted to add to the personal "first aid" kit, lollies or juice boxes , fast acting carbs, are best used to treat low blood sugar.

Most people with diabetes are well practised in managing their levels but it pays to make young children know they can tell you if they feel funny and we have had the odd adult who is recently diagnosed with type 2 , so may not be as well practised at self care.

Last Advice

Before entering the water – remember

LOOK – be aware of the environment around you

LISTEN – for instructions and any emergencies

FEEL – if you are getting cold

Remember 'Tiakina Tangaroa'

(Care for the Ocean and Seas)


Karakia

 2024 MTS Karakia


Whakamana te maunga
Whakamana te wai
He mauri o ngā tangata
Ngā mea katoa he pai
Haumi e Hui e Taiki e !!


If we look after the water
from the mountains to the sea,
it will look after us.
It is our life force.

Appendix 4 | Incident Form


 2024 MTS Incident Report Form.pdf

Appendix 5 Volunteer Form


 2024 EMR Volunteer Registration - If not using online form.pdf

 2024 MTS Volunteer Terms.pdf


Appendix 6 | School Agreement

 2024 EMR School Agreement.pdf


Appendix 8 | EMR Peer Appraisal

 2024 EMR Peer Appraisal.pdf

Appendix 9 | Quick Reference Snorkelling SOP

 2023 EMR SOP Quick Reference.pdf

Appendix 10 | Regional internal H & S team meeting template

 2024 MTS Regional Internal H&S team meeting - Template

Please note that this meeting must be held at least annually at the end of the delivery season in April or May each year and meeting notes and evidence must be sent to your national coordinator with your coordinator reports and H&S evidence documentation (completed forms).

Appendix 11 | Incident Management

This section is about reporting, recording and investigating incidents. The intent of an incident process is to identify improvements that can be made to prevent a recurrence. There may also be a legislative requirement.

Incident policies

- Incidents and near misses (free lessons) of the 1 and 2 severity ranking will be reported and recorded via the pre-site assessment form
- All accidents, incidents and near misses of the level 3 and above on the severity scale must be notified verbally to the Poutokomanawa/Co-director (marine lead) as soon as practical, and formally in writing (via the incident form) within five (5) days of incident occurrence. Report any notifiable events (see definition below) to Worksafe, the Poutokomanawa co-director (marine lead) and Qualworx
- All Accident and Incident reviews will be conducted within 7 days.

- All medical emergencies, evacuations, fires, and other incidents of a serious nature occurring on public conservation land or falling within Department of Conservation management must be reported immediately to the relevant Department of Conservation area or field office (see <http://www.doc.govt.nz> for details). Any such emergency or incident occurring on land/property under other tenure must be reported immediately to the relevant land owner or manager.
- All accidents, incidents and near misses of 3 and above on the severity scale must be recorded on the Accident / Incident database.
- All notifiable events must be reported to the regulator (WorkSafe) by calling 0800 030 040. A notifiable event form can be found here <http://forms.worksafe.govt.nz/notifiable-event-notification>
- All notifiable events must also be reported to Qualworx

Incident Severity Scale

 2024 MTS Incident severity scale.pdf

Severity Ranking	Impact on participation	Injury	Illness	Social or Psychological damage	Environmental damage	Equipment damage
1	Minor/ short term impact on individuals without a large effect on participation in activity	Splinters, insect bites, stings	Minor irritant	Temporary stress or embarrassment	Littering	Minor cost
2		Sunburn, scrapes, bruises, minor cuts	Minor cold, infection, mild allergy	Temporary stress or embarrassment with peers	Minor damage to environment that will quickly recover	>\$50
3		Blisters, sprain, dislocation. Cold/heat stress	minor minor Cold/ upset stomach, etc	Minor asthma, cold, upset stomach, etc	Stressed. Beyond comfort level. Shown up in front of the group.	Scorched campsite, plant damage
4	MEDIUM IMPACT on individual/s that may prevent participation in the activity / programme for a day or two.	Lacerations, frostnip, burns, mild concussion	Mild flu, migraine	Stressed, wants to leave activity, a lot of work to bring back in.	Burnt shrubs, cut live branches, washed group dishes in stream, etc	>\$500
5		hypo/ hyperthermia Sprains & hyper-extensions, minor fracture	Flu, food/hygiene related diarrhoea/ vomiting	Distressed, freezes on activity, requires 'emotional rescue', does not want to participate again.	Walked through sensitive ecological area destroying some plant life, toileting close to water course	>\$2000

6	MAJOR IMPACT on individual/s that means they cannot continue with large parts of the activity/ trip/ programme.	Hospital stay < 12 hours fractures, dislocations, frostbite, major burn, concussion, surgery, breathing difficulties	Medical treatment required, hospital stay < 12 hours e.g., serious asthma attack, serious infection, anaphylactic reaction	Very distressed, leaves activity and requires on site counselling, unwilling to participate in activity ever again.	Destroyed/ killed some example of flora/fauna	>\$8000
7		moderate hypo/hyperthermia Hospital stay > 12 hours e.g., arterial bleeding, severe hypo/hyperthermia, loss of consciousness	Hospital stay > 12 hours e.g., infection or illness causing loss of consciousness, serious medical emergency	Therapy/ counselling required by professional	Killed, destroyed or polluted small area of environment	>\$20,000
8	LIFE CHANGING effect on individual/s or death.	Major injury requiring hospitalisation e.g., Spinal damage, head injury	Major illness requiring hospitalisation e.g., heart attack	Long term counselling/ therapy required after incident	Killed example of protected species	>\$50,000
9		Single death	Single death	Post-traumatic stress disorder, changed profession because of incident, Suicide because of incident	Fire or pollution etc resulting in area of wilderness being destroyed Major fire or pollution causing serious loss of environment or life	>\$250,000
10		Multiple fatality	Multiple fatality			>\$1,000,000

Notifiable events

Under the Health and Safety at Work Act 2015 (HSWA) you must notify us when certain work-related events occur. Deaths, injuries or illnesses that are unrelated to work are not notifiable e.g.:

- A diabetic worker slipping into a coma while at work
- A worker being injured driving to work, when that driving is not part of their work
- Injuries to patients or rest home residents that are triggered by a medical reason (e.g., Injuries from a fall caused by a stroke)
- A worker fainting from a non-work-related cause.

A notifiable event means any of the following events that arise from work:

- a) The death of a person; or (must contact Worksafe immediately)

- b) A notifiable injury or illness; or (must contact Worksafe)
- c) A notifiable incident. (Must contact Worksafe ASAP and Qualworx)

A notifiable illness or injury is an illness or injury requiring the person to have immediate treatment (beyond first aid).

Change to threshold for notifying an injury or illness to 'An injury sustained or illness acquired by a person in connection with an adventure activity that requires, or would usually require, the person to have medical treatment within 48 hours of the injury/illness being sustained'

Follow the link for the detailed meaning of a notifiable illness or injury <http://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976868.html>

A notifiable incident means an unplanned or uncontrolled incident in relation to a workplace that exposes a worker or any other person to a serious risk to that person's health or safety arising from an immediate or imminent exposure.

New notifiable incidents, that need to be declared to WorkSafe:

- a natural hazard that, taking into account the hazard's type, severity, and other distinguishing features, is not a hazard routinely encountered during the ordinary course of the adventure activity;
- a situation where safety-critical equipment used to provide an adventure activity fails or malfunctions while in use; or is defective and at significant risk of failure or malfunction while in use.

See the full definition <http://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976877.html>

For snorkelling, an example of this could be the collapse or partial collapse of a structure, e.g., cliff above the snorkelling site

Level 6 and above on the incident severity scale is a notifiable event.

What you must do immediately after a notifiable incident

1 | Preserve the site

The person who manages or controls the workplace must take all reasonable steps to ensure that the site of the notifiable incident is preserved and not disturbed until a WorkSafe Inspector authorises you to do so.

The site may only be disturbed if:

- You need to remove an injured person
- To remove a deceased person

- It's essential to make the site safe or minimise the risk of someone else being hurt or killed
- Directed to do so by the police
- Permitted by WorkSafe or a WorkSafe Inspector.

To ensure the site is not disturbed:

- The work set-up should not be changed
- Any plant, substances or other things involved in the incident should stay where they are
- Work that could interfere with the site should stop. Work may continue in other parts of the workplace
- No alterations should be made to the plant, vehicles, or structures involved.

2 | Notify WorkSafe New Zealand

If a serious workplace incident occurs, then:

- You must notify us as soon as possible after you become aware that an incident has occurred.
- The notification must be made even if Emergency Services attend.
- Only one notification is required for each notifiable incident.
- If there are multiple businesses involved with the work, then one of the businesses should be nominated to contact WorkSafe.

Note that all businesses are responsible for making sure that the notification is made by the nominated business.

3 | Keep records

You must keep records of all Notifiable Incidents for at least five years from the date of the incident.

Appendix 12 | Senior Snorkel Guide Day Permission – Under 18

 2024 EMR Senior Snorkel Guide Day Permission Form – Under 18.pdf

Through development of the rangatahi programme we have had increased participation of young people as snorkel guides in relation to our Community Guided Snorkel Days events. The permission we seek from parents of under 18 years old is to approve the progression to

senior guide only. Under 18's can be used as trainees and assistants without this written approval. Under 16 senior snorkel guides can be used for a 1:1 ratio only.

Volunteer snorkel guides

Volunteer guides will each take a small group of the public (maximum 6), assisting them to snorkel and identify the fish they see. The groups will keep close to the shore on the whole and sessions will last about 20 minutes. Volunteer guides will do 2 - 3 sessions then take a break. A kayak or other safety watch might support the groups and a full briefing will be held before the event. You will need to be an experienced snorkeler i.e. comfortable in the marine environment and have the ability to look after the group, plus a basic knowledge of what you're likely to see in the way of fish and other marine life. Able to follow instructions, fit and healthy and free from the influence of drugs or alcohol.

Volunteer Rating

Senior guide– proven capability (previous events or training attended) or adequate qualifications (dive master etc), experience and knowledge of area.

Assistant guide – Working with a senior guide, could have additional ratio or bring people back to shore

Trainee guide – (working under direct supervision of a senior guide – no additional ratio)

Land based - assists in registration tent and helps gear, evaluation or shore based spotter

Volunteer terms

Medical conditions: On the day of event participation - Please advise the supervisor if there has been any change to your medical situation

Induction


MTSCT requires all staff and volunteers to comply with our Safety Management Systems, policies and SOP's found on our programme websites. On the day volunteers will be inducted into the SMS and relevant SOP for the day, including access to the relevant site specific RAMS form/s or event plans and guide checklists for the site and given a verbal Health and Safety briefing from the supervisor, including (but not limited to) the identification of potential risks and management strategies. Volunteers will be verbally briefed about the work to be undertaken and potential hazards, location of first aid, facilities and emergency procedures on the commencement of every activity. Site familiarisation is undertaken and relevant issues explained wherever these arise.

Volunteer responsibilities

- Take reasonable care of your own health and safety,
- Take reasonable care that what you do or don't do doesn't adversely affect the health and safety of others,
- Cooperate with any reasonable policies or procedures the business or undertaking has in place on how to work in a safe and healthy way, and
- Comply with any reasonable instruction given by the business or undertaking so that they can comply with HSWA and the regulations.

The complaints policy is found on our website. Health and Safety feedback and/or comments can also be submitted via our programme websites www.whitebaitconnection.co.nz website www.emr.org.nz

Appendix 13 | Snorkel Day Registration Form

 2024 EMR Snorkel Day Registration Form.pdf

Appendix 14 | Advanced Snorkelling SOP

 2024 EMR Advanced Snorkelling Pre-site.pdf

EMR Specific activity SOP – Advanced snorkelling

Advanced snorkelling operations to be led by an EMR endorsed coordinator.

Purpose

The purpose of this policy is to establish a Standard Operating Procedures specific to advanced snorkelling activities to ensure the health and safety of all participants involved in the Mountains to Sea Conservation Trust programme and projects throughout NZ, under the leadership of an Experiencing Marine Reserves (EMR) endorsed coordinator. Advanced snorkelling activities will enhance participation in community science such as monitoring in

relation to marine biosecurity (fan worm removal) and the Love Rimirimu project <https://www.loverimurimu.org/>

This policy is to be applied for any snorkelling deeper than 4m and within 6m and aims to minimise the risks associated with advanced snorkelling and to provide a safe and healthy working environment. This policy is intended to supplement the EMR Snorkelling SOP when carrying out advanced activities such as monitoring.

Note: This Advanced snorkelling SOP will only apply when a snorkelling activity is focused on monitoring the marine environment and more frequent duck diving is required. Advanced snorkelling to be led by a EMR endorsed coordinator, with small working groups of 6 freedive qualification or suitably trained divers at a time.

Definitions – Snorkelling vs advanced snorkelling

Snorkelling | Swimming on the surface of the water using a snorkel, mask and swimming aids such as fins and duck-diving to depths not exceeding 4m. Students don't usually wear a weight belt. Snorkel in the mouth when going underwater, using blast technique when surfacing.

Advanced snorkelling | Breath-hold diving to depths within 6m without the use of breathing apparatus. Weight belt on, snorkel removed from mouth when diving underwater. Main purpose of the activity is observations not depth.

Tools | (camera, knife, transect line, quadrat) may be used for both freediving and snorkelling.

Key Hazards

Hazard/risk identification and control procedures. Refer to

 2024 MTS Risk Assessment Form - MARINE Part 2.pdf

Training and competency

Advanced snorkelling leader | Additional training for EMR endorsed coordinators (refer to EMR coordinator qualifications) leading advanced snorkelling - record of freedive training with Sacha Williamson from Freedive Aotearoa initially and every 2 years (training recorded on personnel file - training records). Some additional site specific risk assessment training for some environments such as wharfs to demonstrate proficiency.

Participants | Basic freedive training or equivalent certification, or assessed to an equivalent level by an endorsed EMR coordinator. Medical liability form - rechecked every 3 years, Participated in a advanced snorkel assessment session (to verify qualification).

Completed proficiency requirements (training)

- Holds basic freediving knowledge and/or training record and experience, including health and fitness requirements for freediving. AIDA, PADI or equivalent certification.
- Proven proficiency of advanced snorkelling techniques in water including equalising, breath holds, deep dives and safety/emergency procedure (see list below)
- Introduction to the specific monitoring methods and equipment required for the programme through theory sessions and “dry runs” with the equipment.
- Practical, in-water (pool and ocean) runs of the methods.
- Attended a data collection and management workshop/s.
- Proven knowledge in seaweed/marine life identification relevant to monitoring

All participants in advanced snorkelling must demonstrate proficiency in the following:

- Demonstrate “exhale check” to ensure you are correctly weighted.
- Demonstrate weight belt removal and replacement at the surface.
- Demonstrate removal and replacement of the mask while in the water.
- Demonstrate two methods of mask clearing.
- Demonstrate proficient duck dive.
- Demonstrate surface and underwater swimming using a mask and snorkel.
- Demonstrate equalising the middle ear and sinus gas spaces.
- Duck dive to 4 metres and retrieve an item from that depth.
- Perform unconscious snorkeller recovery from 4 metres.
- Demonstrate rescue procedures for a snorkeler who has suffered shallow-water blackout.
- Support buddy and tow or push 50 metres in a simulated rescue exercise.

All EMR advanced snorkelling leaders (endorsed coordinators) must additionally demonstrate proficiency in the following:

- Swim down a dive line to 10 metres and retrieve an item from that depth.
- Perform unconscious snorkeller recovery from 10 metres.

Equipment

Participants

All participants in the monitoring programme must have the following basic equipment:

- Wetsuit: A wetsuit is required to protect the participant from the cold water temperatures, and to provide buoyancy.
- If necessary, the participants will also be provided with a neoprene hood, gloves and socks for extra comfort and warmth.
- Mask & snorkel: A mask and snorkel are required to enable the participant to see and breath underwater.
- Fins: Fins are required to provide propulsion and manoeuvrability in the water.
- Weight belts: Weight belts are required to aid in the descent of the participant to depth. All weight belts must be checked for proper weighing in the shallows and adjust accordingly before starting any freediving activities.
- Knife or cutting tool: A dive knife or cutting tool is an essential safety item for freediving activities, as it can be used in emergency situations to quickly and safely cut through entanglements or other obstructions that may prevent a diver from surfacing. This could include getting tangled in fishing lines, ropes, or seaweed, or getting trapped in a submerged object.
- Whistle: A whistle will be used by participants in freediving. Following EMR whistle procedures, 1 whistle blast will mean “stop and listen for instructions” and 3 whistle blasts will mean “emergency happening, promptly evacuate to emergency meeting point on shore with your group”.
- Surface marker buoy (SMB) and dive flag: The dive flag and buoy provides a visual reference point on the surface of the water to increase visibility of the participants to other boats or watercraft in the area and provides in-water support. The SMB is typically a brightly coloured, inflatable buoy that marks participants’ position in the water and provides support to rest on. The dive flag is used to indicate the presence of a diver below or at the surface to other boats or vessels in the area, helping to prevent accidents and ensure the safety of all water users.
- In addition to the basic equipment, the programme must have the following specific health and safety equipment:
- First Aid Kit: The first aid kit should be well-stocked and readily available to treat minor injuries such as cuts and scrapes, as well as more serious injuries such as hypothermia or diving-related illnesses.

Advance snorkelling leader equipment

- Freedive float ring or float boat (with dive flag as per EMR snorkelling)
- AED highly recommended
- Weight Belts
- Depth gage

- Recommended type of fin for activity

Monitoring/pest removal equipment

- Flotation buoys for transects

Note: In activity/training/assessment led by a freediver instructor, the instructor is required to have oxygen.

Advanced snorkelling leaders are responsible for ensuring that all equipment is properly stored and maintained and available at the time of carrying out the freediving activity. This includes other equipment specific to the monitoring or restoration activities taking place at the time. The programme leader is responsible for rinsing with freshwater and drying all equipment for proper maintenance and storage.

Sanitisation Policy

In the case that a particular marine pest or disease is known to be present in the area, the programme leader is also responsible for ensuring diving and monitoring equipment is treated following [2024 MTSCCT Sanitisation Policy.pdf](#) at the completion of freediving activities.

Otherwise do one of the following Department of Conservation recommendations:

- Soak equipment in freshwater for 72 hours, replacing water after 12 hours
- Soak equipment in warm water (40–45°C) for 20 min
- Soak equipment in 5% dishwashing detergent/freshwater solution for 1 hour
- Soak equipment in 1% Trigene/freshwater solution for 1 hour
- Spray with 1% Dettol antiseptic/freshwater solution and leave for 1 hour
- Spray with 100% Trigene and leave for 1 hour


Ratio


1:6 (working in buddy pairs for trained participants)
1 EMR endorsed coordinator to 6 trained divers

Advanced snorkel safety plan


An advanced snorkel plan is similar to a group itinerary or detailed snorkel plan for remote sites but must have more detail on the site and planned activities and depth - timeline - etc.

Part A and B RAFS (hazard register for snorkelling)

 2024 EMR Site Specific RAF (RAMs) and Emergency Procedure - PART 1 - TEMPLAT...

 2024 MTS Risk Assessment Form - MARINE Part 2.pdf

Advanced Snorkelling - Pre site assessment and participant register (see appendix)

 2024 EMR Advanced Snorkelling Pre-site.pdf

The advanced snorkel safety plan should include

- The location of the freedive
- An evaluation of the surface and underwater conditions and hazards at the site (site specific hazards)
- An evaluation of underwater visibility, which will determine the maximum depth of freediving activities to maintain visual contact between buddies.
- Consideration of the snorkel team's ability to work in the conditions at the site.
- The water temperature at the site.
- The roles and tasks of all members of the free dive team
- Emergency procedures, including location of all emergency equipment.
- The agreed system or procedure of recalling snorkelers.
- The agreed procedure for retrieving a snorkeller.

Briefing

The briefing must be clearly communicated to all involved in the free diving operation. All advanced snorkelers must be given the opportunity to refuse to enter the water or terminate activities at any stage for any reason – the decision to enter the water is that of the individual and this decision must be respected by all involved in the operation.

Additional aspects to add to briefing

- Demonstration and discussion around monitoring equipment
- Target species
- Suitability of conditions for monitoring task
- Specific hazards for the site, e.g entanglement/ higher risk of hypothermia

Advanced snorkelling procedures

All advanced snorkelers must:

- Always snorkel with a buddy
- Be correctly weighted
- Not hyperventilate
- Relax before holding their breath.

- Take a minimum of three proper recovery breaths at the surface following a breath hold dive

Buddy pairs

All snorkelling activities must be undertaken in 'buddy' pairs. Buddies should remain close enough to communicate and assist each other while undertaking free diving activities and should operate to the "one-up one-down" rule with constant visual contact between each other.

Correct weighting

All divers and snorkelers should be correctly weighted and should not sink from the surface when exhaling forcefully - their head might go underwater, but they should then stay neutrally buoyant and not sink.

Hyperventilation

Hyperventilating before a breath-hold dive is strictly prohibited.

Hyperventilating is rapid or deep breathing more than you need to. The main result of hyperventilation is a rapid decrease of Carbon Dioxide (CO₂) in the bloodstream, which is the gas that causes us to want to breathe. By removing CO₂ from the bloodstream, hyperventilating tricks the body into thinking that it doesn't really need to breathe. However, the hyperventilation hasn't increased Oxygen (O₂) levels to compensate and O₂ levels decrease just as quickly as normal, but without the safety mechanism of the high CO₂ 'need to breathe' reflex. Hyperventilating therefore means breath-hold divers can continue to dive without any strong desire to return to the surface.

Symptoms of hyperventilation include

- Euphoria.
- Tingling in the extremities
- Light-headedness.
- Dizziness.
- Numbness around the mouth.
- A metallic taste in the mouth.
- Semi paralysis of the hands.

If you experience any of these symptoms, do not undertake breath hold diving.

Snorkel out

All breath hold divers should take their snorkel out of their mouth before they descend. In case of a black out the snorkel is an open water pipe to the victim's airways, making an effective rescue much more challenging and complex.

Equalisation

During breath-holds, divers must equalise frequently (when they feel the rising pressure) and never wait until the pressure becomes painful to the ears. Divers should not undertake diving activities if they are sick and/or congested and must wait until their airways are clear before going back to water. All breath hold divers must be able to equalise their middle ears and sinuses using either the Valsalva or the Frenzel manoeuvre.

Valsalva manoeuvre

With the mouth closed and the nose pinched, you exhale through your nose. As the air cannot escape out of your nose, it will automatically be moved through your Eustachian tubes into your middle ears. Your ears will make a "popping" noise – this is an equalisation.

Frenzel technique

The Frenzel technique works by pinching your nostrils, then placing your tongue at the roof and back of your mouth and moving the back of your tongue gently upward. This moves the air up into your middle ear making a "popping" noise as your ears equalise.

Finning technique

Good finning technique starts from the hips and uses the hip flexor to move the leg forward and the buttocks to move the leg backwards. Most other leg muscles are used to propagate that action towards the fin by keeping the leg and foot as extended as possible. Knees and ankles should stay as straight as possible throughout the whole range of the finning movement. To avoid a "bicycle style" kick, always keep your knees and ankles straight. How wide and how fast you kick depends on the length and strength of your legs, the length and stiffness of your fins and the level of your technique. In general, you should apply a strong, steady, and symmetrical kick with a continuous rhythm.

Recovery breathing

A breath hold dive is only completed once you have taken a minimum of three proper recovery breaths at the surface. If breath hold diving is undertaken, the minimum time at the surface between breath hold dives should be twice the duration of the breath hold time.

Pre-activity health checks

The purpose of pre-activity health checks are to ensure the safety and well-being of all participants in the programme by implementing a daily health check to assess their physical and mental readiness for the activity. The procedure aims to identify any health issues or concerns that may impact the participant's ability to perform their duties safely and effectively.

All participants in advanced snorkelling should complete a daily health check before beginning any activity. The health check will be a whole-group verbal activity. The health check will consist of the following:

Symptom Check

- Participants will be asked if they are experiencing any symptoms such as coughing, shortness of breath, sore throat, loss of smell or taste, or any other symptoms associated with COVID-19 or other respiratory diseases.

Anyone experiencing any of these symptoms will not be allowed to participate and will be advised to seek medical attention.

General Health Check (Hauora tinana)

- Participants will be asked about their general health and any medical conditions or concerns that may impact their ability to participate safely and effectively.
- This will include questions on any physical injuries or illnesses, chronic conditions, or recent surgeries. Any participant who reports a medical condition or concern will be assessed by the programme supervisor to determine if they are fit to participate.
- Participants will also be asked about their hydration/hunger status and encouraged to drink water/eat food if necessary.

Mental Health Check (Hauora wairua)

- Participants will be asked about their mental state and well-being, including stress, anxiety, or any other mental health concerns.
- Participants will be encouraged to report any concerns they have about their mental health, and provided with appropriate support and resources.

The programme lead will ensure that all participants are aware of the daily health check policy and that it is always adhered to. Participants who are deemed unfit to participate based on the daily health check could participate in land-based support roles if appropriate or will be advised not to participate at all until they have been cleared by a medical professional.

The daily health check is a critical component of any advanced snorkelling. It ensures that all participants are physically and mentally prepared for the activity, minimising the risk of injury or harm. All participants are expected to comply with this policy to ensure their own safety and the safety of others. The programme lead will ensure that any concerns raised during the daily health check are addressed in a timely and appropriate manner, and that all participants receive the support and resources they need to stay healthy and safe.

Advanced snorkel safety

Signs of a diver in need of help

A diver who has stayed down too long will gradually get low on Oxygen. Buddy pairs can identify signs of a free diver in need of help by looking out for the following signs:

- **Change of finning style** | When a free diver with a usually strong kick suddenly becomes sloppy in their movements, it should be interpreted as a sign of trouble. A diver that stops kicking on ascent at an inappropriate time or while swimming horizontally without any obvious reason (e.g., watching marine life) should be suspected to be in trouble.
- **Unfocused eyes** | A free diver returning from depth close to or beyond their personal maximum should always be escorted on the last few metres of their ascent by their buddy. The buddy should stay face to face with the free diver so that they can see their eyes. If their eyes become unfocused it is a strong indication they need help.
- **Speeding up at the end of a dive** | Towards the end of a dive, your buddy might have accumulated a lot of CO₂. A well trained and in-control free diver will slow down at this point in order to avoid wasting Oxygen and producing excessive amounts of CO₂. Speeding up to be able to get to the surface is a sign of a free diver losing control.

- **Exhaling underwater** | If your buddy clearly exhales underwater, they are losing oxygen and buoyancy and there is increased likelihood they will black out underwater.
- **Inability to keep the head above water (after surfacing)** | This is a clear sign that your buddy is in a low Oxygen state, as are uncontrollable twitches and/or reduced responsiveness. All these signs indicate that your buddy needs your immediate support.

Loss of Motor Control (LMC) after surfacing from breath-hold dive

Loss of Motor Control, or LMC, is a hypoxic fit that occurs after surfacing if Oxygen levels are too low. A loss of motor control happens only after a dive. It is not the same as a black out, it can be described as the red zone of low oxygen before falling unconscious.

A clear indicator that your buddy suffers from loss of motor control are jerky movements with the limbs or the head. A light loss of motor control will last a few seconds and will mainly induce light uncontrolled eye and/or head movements, while severe loss of motor control can affect the whole body and leads to an inability to maintain the airways out of the water.

The cause of a loss of motor control is a lowered level of oxygen in your blood that has reached the point where normal cell function cannot occur. This means the metabolism is disturbed and normal functioning is reduced, hence the jerky movements and lack of responsiveness. A loss of motor control can result in a full black, depending on the correct application of recovery breathing. After recovery from a loss of motor control, you may not be aware of what just happened. Trust your buddy, they will tell you.

If you experience loss of motor control, you MUST stop diving for the rest of the day.

Shallow-water blackout

A Black Out is the loss of consciousness caused by lack of oxygen towards the end of a breath hold dive or immediately after.

In the event of shallow water blackout

- Get the victim to the surface immediately, establish positive buoyancy for both of you and signal the Lookout for assistance.
- Get the victim on their back, remove their mask and snorkel,
- Blow – Tap – Talk (BTT-Cycle) | Blow on the skin below the eyes to dry the skin and signal thus to the unconscious body that there is now air to breathe. Tap alternatively both cheeks of the unconscious free diver with your open hand. Talk to

the still subconsciously active mind of the victim: Tell them to breathe in and use their first name. For example, “Mara, breathe in!” in a very direct tone.

- Repeat the BTT-Cycle. If they do not resume breathing within 15 seconds or earlier get them to land or boat ASAP, begin rescue breathing if immediate removal from water is delayed or impossible.
- After suffering from a black out, the diver MUST stop diving for the rest of the day to allow the body to fully recover from the incident.

Love Rimurimu

LOVE RIMURIMU

Imagine the Blue Belt of Wellington sustaining a healthy and vibrant ocean forest; able to absorb more carbon than trees, improving water quality and providing habitat for thousands of marine creatures. Regenerating our seaweed forests is a way to make this a reality - and it's what this project is all about.

Our Plan.


By improving conditions and restoring sites in the harbour with juvenile and adult seaweeds, we hope to set up the right environment for regeneration- helping nature to be a self-sustaining and healthy ecosystem again.

These sites will take up carbon, restore habitat and strengthen our marine ecosystem - making it more resilient into the future. But we must act soon, and we must be prepared to learn and innovate along the way.

The snorkelling component of Love Rimurimu is delivered by EMR.

<https://www.loverimurimu.org/>

Pre-site assessment for Advanced Snorkel Activity

 2024 EMR Advanced Snorkelling Pre-site.pdf

Appendix 15 | River Drift Snorkel SOP

EMR Specific activity SOP - River drift snorkelling

Purpose

The purpose of this policy is to establish a Standard Operating Procedures specific to snorkelling in freshwater rivers to ensure the health and safety of all participants involved in the Mountains to Sea Conservation Trust programme and projects throughout NZ, under the leadership of a Experiencing Marine Reserves (EMR) endorsed coordinator.


This policy is intended to supplement the EMR SOP when carrying out river snorkelling. Some procedures and processes from the EMR SOP will still apply when carrying out river snorkelling activities.

Definitions

River drift snorkelling takes place in the freshwater/ flowing water environment

- Key Hazards
- Submerged Rocks
- Strainers
- Foot entrapments
- Logs
- Slippery rocks
- Wraps onto rocks
- Poor water quality

Hazard/risk identification and control procedures

 2024 MTS Risk Assessment Form - MARINE Part 2.pdf

Training and competency

EMR endorsed coordinator

- Skilled in river snorkelling.
- Needs to be able to swim in river currents confidently
- Be able to rescue snorkeller/s using the currents.
- Must understand river hydrology

Participants

- Snorkelled before and can swim

Equipment (additional for river snorkelling)

- Throw rope
- Experienced Safety Kayaker stays with each group must be experienced with a throw bag

Safety precautions for river snorkelling

- Avoid white water and rapids.
- Swim check prior to river snorkel (rubbish or new logs).
- Each section of river to be swum should be thoroughly checked before the dive, from the bank, from the air, by rafting or by seeking local knowledge about the current state of the river and rainfall updates and have established safe flow rate (cubic metres per second) operating levels
- Must have a safety watch with a throw bag who is able to throw, recoil, loop and rethrow accurately to a snorkeler moving in current.
- Kayakers remain downstream of snorkelers and carry extra snorkel gear on kayak.
- Need to model how to swim in and out of an eddy
- How to avoid rocks and strainers and how to feet glide out across a current
- Safety watch to follow the group from the put in, if possible, if not possible have safety watch on entry and exit. Safety watch on exit has participant shoes in a bin so snorkelers can move safely on rocks and uneven terrain.
- If there are obstacles, a suitable bypass should be located and agreed upon and beaches or areas suitable for landing should also be located.
- A minimum of 3 metres underwater visibility is recommended.

Ratio

Maximum 1:4 | EMR endorsed coordinator to participant ratio
Preferred 1:2

River snorkel event plan to include the following

- Event details
- Assign a event controller
- Key hazards and controls
- Key messages and outcomes
- Site Specific RAF (part A)

- Link to Part B RAF
- Weather calls - choosing safe river levels. Need to know safe flow rates (cubic metres per second) and have cut offs for too high and to low levels
- Resources/ protective equipment required
- Group briefing
- Timeline
- Waste and traffic management (if applicable)
- List of other providers roles
- List of overlapping duties of care
- Signed agreement of overlapping duties of care
- Clear assignment of overreaching SMS for event and activity specific SOP's
- Check site for unrestrained dogs

Motueka Case Study event

This river was grade 1 - 2.

The Snorkel Guides felt 1- 2 was optimal, 1-3 was ok.

They found 1;4 was too difficult to manage in the current as some would take off in the flow.

You need at least 1 adult in a group of 3.

The safety kayaker needs to sit downstream in eddy below swimmers because they could run over swimmers who have not much control of direction in the current.

Need to check that the river has enough flow and there are not rocks or strainers or logs that swimmers can hit their face on or become stuck.

Snorkel guides taught snorkelers how to swim to avoid obstacles, discussed, wraps, foot entrapments and asked snorkelers not to stand up in the river.

Need a good whistle as it is sometimes hard to hear with river flow.

Snorkel Guides taught hand signals to group before departure and showed where the coned take out area was.

Appendix 16 | Night snorkel SOP

EMR Specific activity SOP - Night Snorkel

To be used in conjunction with EMR SOP for snorkelling and MTSCCT SMP

Purpose

The purpose of this policy is to establish a Standard Operating Procedures specific night snorkelling to ensure the health and safety of all participants involved in the Mountains to Sea Conservation Trust programme and projects throughout NZ, under the leadership of a Experiencing Marine Reserves (EMR) endorsed coordinator.


Definitions

Twilight		Sun is going down but it's not completely dark
Night		Sun has gone down

Key Hazards

- Panic
- Visibility (on land and in water),
- Hazardous marine life may be more active at night

Hazard/risk identification and control procedures

 2024 MTS Risk Assessment Form - MARINE Part 2.pdf

Training and competency

EMR endorsed coordinator to lead night snorkel activities

- Familiar with the night snorkel location
- Night snorkelling experience

Participants

- Participants must be able to swim 100m with fins to be able to participate in a night snorkel
- Snorkel experience (prior to night snorkel).
- Not recommended for snorkelers who experience panic

Equipment

- Underwater torches for every guide.
- Whistles for EVERY person.
- Glow sticks or reusable glow sticks for every person (check glow stick quality to make sure they work before the event).
- Kayak or SUP to follow the group (with glow sticks attached).
- Communication device between radio and shore
- Big lights for entry and exit point (make sure entry point visible etc)
- Loud hailer for emergency recall

Ratio

Max 24 participants at a time, may be less depending on the environment (lake versus ocean). Same as what you would use for a year 9 and up school group.

Age

Recommend age 12 and up, but base judgement on snorkel experience

Event plan


Same event plan as a community guided snorkel day, including site specific RAMS for site.


Things to note


- Registration forms for a night snorkel must list
 - names
 - medical info
 - emergency info of each person in the group.
- Remind people to constantly number off
- Use school check in and out form with all names, not just group name (as per a guided day)
- Ensure each snorkel guide has a group, but led by a EMR snorkel leader (without a group, similar to a EMR school/group tour)


Notify the community about a night snorkel happening so not to alarm people (especially for bigger groups of over 4).

Appendix 17 | RAF (RAMS) Form (snorkelling)

 2024 EMR Site Specific RAF (RAMs) and Emergency Procedure - PART 1 - TEMPLAT...

 2024 MTS Risk Assessment Form - MARINE Part 2.pdf

 2024 MTS Risk Assessment Form - FRESH Part 2.pdf

 2024 MTS Incident severity scale.pdf