Snorkelling

Australian Adventure Activity Good Practice Guide

Guidance for snorkel swimming and snorkel diving.

Pre-release version

Traditional Owner Acknowledgement

The Outdoor Council of Australia and the Australian Adventure Activity Standard Steering Committee would respectfully like to acknowledge the Traditional Owners, their Elders past, present and emerging, for the important role Indigenous people continue to play in Australia and most especially on the land and waters used for outdoor activities and recreation.

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Contents Overview

Version details

Version	Date	Details
1.0	18 Sept 2019	Pre-release version. Final guidance content.

Foreword

"Adventure is worthwhile" – Aristotle

The Australian Adventure Activity Standard and Good Practice Guides are designed to ensure effective, responsible, sustainable and safe delivery of adventure activities to dependent participants. They can help people across the outdoor sector to develop appropriately managed adventure activities which enhance individuals and our communities, while protecting the environment and culturally significant places. In doing this, these documents can help ensure that people will continue to enjoy the benefits of adventure activities well into the future.

Best wishes for all your adventures.

The Australian Adventure Activity Standard Steering Committee.

Preface

About these documents

The **Australian Adventure Activity Standard (AAAS)** and related **Good Practice Guides (GPGs)** are a voluntary good-practice framework for safe and responsible planning and delivery of outdoor adventure activities with *dependent participants*.

The AAAS and related GPGs provide guidance on safety and other aspects of responsible activity delivery, such as respect for the environment, cultural heritage and other users. They are not a full legal compliance guide, nor are they a "how to" guide or field manual for outdoor activities. They do not provide guidance on providing a high-quality experience over and above safe and responsible delivery.

Activity *providers* are encouraged to obtain independent professional and legal advice in relation to their obligations and duties in delivering adventure activities and should reference the relevant laws to the area in which they intend to undertake the adventure activity.

Does the Standard and Good Practice Guides apply to me?

The AAAS and related GPGs are specifically designed to help activity *providers* who are conducting activities involving *dependent participants*, to provide a safe and responsible experience. It is for each *provider* to determine based on their own individual circumstances, if they are working with *dependent participants* or not.

A *dependent participant* is a person owed a duty of care by the activity *provider* who is reliant upon the *activity leaders* for supervision, guidance or instruction to support the person's participation in an activity. For example, this often includes participants under the age of 18, participants lacking the ability to safely undertake the activity, or participants reasonably relying on the activity *provider* for their safety. The degree of dependence may vary during an activity.

Considerations for determining if a person is a *dependent participant* may include, but is not limited to:

- the foreseeable level of *competence* of the participant in the activity and the associated level of reliance this creates on the *activity leaders*
- the level of foreseeable self-reliance of the participant to reasonably manage their own safety
- the possible variation throughout the activity of the level of reliance
- the variation of the degree of dependence throughout the activity
- the individual context, nature and circumstances of the activity
- the relevant circumstances and particular facts relating to the responsibilities assumed by the *provider*.

An activity *provider* can be any organisation – business, community group, government agency, school or any other groups – that organises and leads adventure activities. Individuals can also be an activity *provider*, if they have the ultimate legal duty of care to participants. In general, 'the Standard' and GPGs relate to a provider as a 'whole organisation', rather than to 'specific roles' within the provider 'organisation'.

Some providers may have their own standards or guidelines appropriate to their duty of care. It is recommended that these be reviewed periodically to ensure current duty of care expectations are met. 'The Standard' and GPGs may aid such reviews.

Are they legally binding?

The AAAS and GPGs are voluntary, not legal requirements. However, they may refer to specific laws and regulations which may be legally binding on activity *providers*.

While the AAAS and GPGs are voluntary, some *land manager*s and other organisations may require compliance. This may be as a condition of obtaining a licence, permit or other permission, or some other condition (e.g. a contract).

Under Australian common law and relevant legislation, *providers* have a legal duty of care towards *dependent participants* in some circumstances. In broad terms, the legal duty requires *providers* to take reasonable care that their actions and omissions do not cause reasonably foreseeable injury to *dependent participants*.

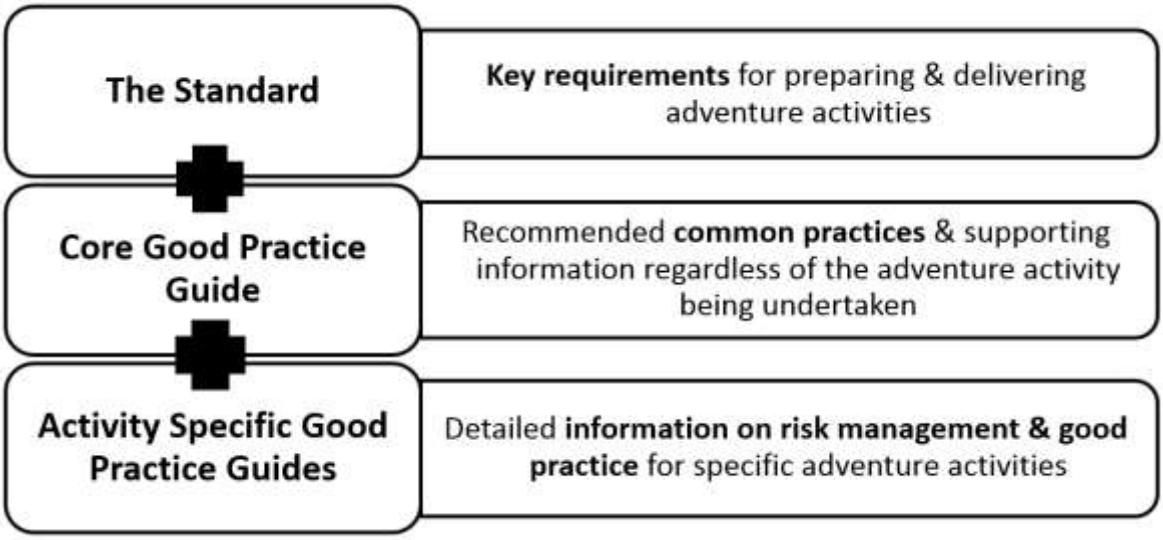
The AAAS and GPGs are not legal advice, and they cannot answer whether a legal duty exists in specific circumstances. All adventure activity *providers* should check what legal requirements apply in their own situation and seek legal advice if at all in doubt.

Even in cases where participants are not dependent, other legal duties and obligations may arise. The AAAS and GPGs have not been developed for those contexts.

Structure of the Standard and Good Practice Guides

The AAAS (i.e. the Standard) has a related Core Good Practice Guide (Core GPG). They both include guidance that applies to all adventure activities. They set out recommendations for a common approach to risk management that can generally apply regardless of the specific activity being undertaken.

Individual activity Good Practice Guides include guidance on specific adventure activities.



For any given activity, (i) the AAAS (the Standard), (ii) the Core GPG and (iii) the activity Good Practice Guide that applies to that specific activity, should be consulted.

The AAAS and Core GPG cover only those activities specifically listed. While the AAAS and Core GPG may be useful in managing *risk* generally for other activities, they may not reflect good practice for such other activities.

Interpretation of the Standard and Good Practice Guides

The following words and phrases are used in all documents and have specific meanings:

- Must: used where a provision is mandatory, if the *provider* is to operate fully in accordance with AAAS or GPGs. (This is equivalent to the keyword "shall" used in other voluntary standards e.g. Standards Australia, other International Standards Organisations (ISO's) etc.)
- Should: used where a provision is recommended, not mandatory. It indicates that the *provider* needs to consider their specific situation and decide for themselves whether it applies or is relevant.

- Can/cannot: indicates a possibility and capability.
- May/need not: indicates a permission or existence of an option.
- But are/is not limited to: used to indicate that a list is not definitive and additional items may need to be considered depending on the context.

The following formatting is used throughout:

- Defined words are in *italics.* They are defined in the Glossary.
- Examples are in smaller 9-point font.
- In document references are in underlined. References are to section heading titles.
- External web or Australian AAS & GPG document links are in dotted underline italic.

Creation

The AAAS and GPGs were developed with the input from a wide range of outdoors and adventure activity experts with extensive field experience. They draw on state and territory-specific standards previously in place across Australia. The development process included work by a range of technical expert working groups, as well as open consultation throughout the community of activity providers and other experts.

The Steering Committee wishes to thank all the Technical Working Group (TWG) members for their work and contributions.

The Steering Committee acknowledges all the State and Territory Governments for funding the creation of the first national adventure activity standard and set of good practice guides for the sector.

Further details of the creation of the AAAS and GPGs can be found at www.australianaas.org.au

It is intended that the AAAS and GPGs will be regularly updated to reflect changing practice and better understanding over time. Updates will be noted on the website www.australianaas.org.au

1 Introduction

1.1 Snorkelling

Snorkelling involves swimming using a mask and *snorkel*, and usually also with fins. A *snorkel* is a short tube through which a person swimming just under the water surface can breathe through. It is mainly associated with viewing what is under the water. This may include reef formations, plant life and wildlife.

There are two distinct types of *snorkelling* activities:

- *snorkel swimming*, where snorkellers primarily swim on the surface of the water using *snorkelling* equipment
- *snorkel diving*, where snorkellers are diving and swimming below the water surface while holding their breath.

A snorkellers buoyancy has risk and safety management implications. Snorkel swimming activities generally have the snorkellers positively buoyant so that they float on the surface. Snorkel diving is more difficult while positively buoyant. When snorkel diving is a feature of the activity, snorkellers may use equipment to become close to neutral buoyancy with the potential to become negatively buoyant.

Snorkelling activities may be shore or boat based. It may occur in a range of environments and types of water bodies. Water bodies are classified for *snorkelling* as either:

- *confined water*: a *swimming pool* or a naturally formed water site no larger in area than approximately an Olympic size *swimming pool* with a depth of less than 5 metres, and which offers *swimming pool* like conditions with respect to water clarity and calmness
- *open water*: any body of water that is not *confined water*.

The different type of water bodies can have different associated environmental hazards and risks.

Snorkelling does not involve *SCUBA diving* or surface-supplied air system diving. The reverse however can occur with those *SCUBA diving* or using a surface supplied air system diving also *snorkelling*.

1.2 Exclusions

Activities that are not covered by this Good Practice Guide (GPG) are:

- *SCUBA diving*
- diving using a surface-supplied air system (e.g. hookah's etc.)
- *snorkelling* as a part of *SCUBA diving* or surface-supplied air system diving
- *snorkel diving* in underwater caves or wrecks
- *free diving* (holding ones breath for as long as possible and/or diving to the greatest depth possible)
- activities involving competitive events (e.g. underwater hocky etc.) or adventure races
- spear fishing
- swimming instruction (e.g. freestyle) programs in *swimming pools*, where masks and *snorkels* are used as a teaching aid or incidentally as part of the swimming program
- swimming where a *snorkel* is not used
- associated watercraft activities including operating watercraft as the platform from which the *snorkelling* occurs (for example: sea kayaking, inland waters paddle-craft, sailing watercraft and motor propelled watercraft activities)
- activities that are "surf" related (e.g. surfing, surf skiing, boogie boarding, body surfing etc.).

1.3 Related activities information

Related activities which have their own good practice information available include:

- SCUBA or surface-supplied air system diving – possible appropriate guidance may include but is not limited to:
    - appropriate *marine safety agency* requirements or recommendations
    - appropriate diver training agency standards and/or an accreditation organisation training, requirements, standards or recommendations
    - AS/NZS 2299.3:2003 Occupational diving operations – Recreational industry diving and snorkelling operations
    - Worksafe codes of practice.
- *snorkelling* while also SCUBA or surface-supplied air system diving – *SCUBA diving* requirements should be considered instead
- associated kayaking and paddling activities on waters that are not *inland waters* – refer the Enclosed and coastal waters paddle-craft GPG
- associated paddling activities on *inland waters* – refer the Inland water paddle-craft GPG
- associated sailing watercraft activities – refer to the appropriate *marine safety agency* requirements and sail practice guides
- associated motor propelled watercraft activities (e.g. motorboats, personal watercraft like jet ski, etc.) – refer to the appropriate *marine safety agency* and *land manager* requirements.

2 Management of risk

2.1 Management of risk

There are no additional specific activity provisions other than the provisions in Core GPG - Management of Risk.

3 Planning

3.1 Activity plans

The *marine safety agency*, land owner and/or *land manager* law(s), regulation(s) and/or requirements must be determined and complied with.

Snorkelling activity planning considerations may include but are not limited to:

- hazards and risks at the site
- water body conditions
- weather
- means of accessing and exiting the *snorkelling* site (e.g. watercraft requirements)
- the suitability of site(s) for the participants likely to be involved
- the supervision required
- *personal thermal protection* necessary
- possible interactions with marine wildlife
- *land manager* and *marine safety agency* regulation and requirements
- any other relevant considerations listed in this document and in the Core GPG.

Snorkelling activity plans should include:

- appropriately detailed location maps
- preferred sites and access routes

- locations, sites and routes to avoid
- references to standard operating procedures for managing hazards and risks
- environmental *trigger points* for reassessment of plans (See 5.6 Weather and water condition trigger points).

3.2 Emergency management planning

3.2.1 Emergency management plan

The emergency management plan must be based on the outcome of the risk management plan.

Considerations when developing emergency management plans may include but is not limited to:

- types of emergencies the risk assessment plan identifies
- remoteness of the activity
- appropriate means of rescue
- when operating from watercraft having appropriate systems and equipment to handle and remove people from the water (e.g. where the person is unconscious, heavy)
- the need for an medical oxygen supply and Automated External Defibrillator (AED) based on the activity context and profile of likely participants
- the practicality of carrying the emergency management equipment (e.g. remote first aid supplies, medical oxygen supply, AEDs etc.).

A non-participating contact must be used as part of the emergency management plan.

An activity intentions plan must be:

- provided in accordance with any *land manager* or *marine safety agency* requirement
- provided to the non-participating contact along with any relevant information needed.

The use of relevant rescue systems and procedures must be practiced periodically.

Considerations for rescue scenario training may include:

- general rescue scenarios for the type of water body the activity is conducted in
- specific rescue scenarios where known hazards require specific rescue methods.

Where there is only one *activity leader*, the emergency management plan must have arrangements that allow participants an adequate and appropriate communication system if the leader becomes incapacitated. (See sections 7.3.2 Recommended supervision and 7.3.3 Snorkelling lookouts)

Also refer to the Core GPG – Emergency management planning.

3.2.2 Reporting notifiable incidents

A reportable incident must be reported to all relevant authorities in the jurisdiction it occurred, in accordance with the requirements for the jurisdiction.

The *land manager* or *marine safety agency* may have incident reporting requirements.

Also refer to the Core GPG – Incident reporting.

4 Participants

4.1 Participant considerations

Participant considerations should include:

- participant aims and objectives

- considerations listed in the Core GPG – Participants and Activity purpose sections
- the effect of the temperature of the environment on individual and groups of participants
- familiarity with and experience in water environment(s)
- fitness
- general heath
- swimming ability
- age (e.g. older or very young people)
- if it likely they will undertake *snorkel diving*
- if they exhibit behaviour that indicates they are stressed (e.g. hesitant, appear to be jumpy, overly excited, fidgety or having shaking hands)
- if they are non-English speakers.

Higher risk participants should be identified so additional risk mitigation measures can be used. (Refer 7.4.5 Higher risk participants – risk mitigation.)

Higher risk participants include those who:

- are living with a disability
- have a medical alert for a condition (e.g. medical alert bracelet, pendant, necklace)
- are either an older or a very young person
- are overweight
- appear to be in bad health (e.g. respiratory problems, particularly unfit)
- exhibit stressed behaviour (e.g. appear to be jumpy, hesitant, overly excited, fidgety or have shaking hands)
- have mobility issues
- have difficulties in readily understanding instructions
- has a vision impairment that might affect them navigating the activity area
- has a hearing impairment that might affect following instructions
- are non-English speaking
- anyone undertaking extended breath holding or *snorkel diving* (i.e. at risk of *shallow water blackout*).

Considerations relating to participants general heath may include but is not limited to:

- if they smoke
- medical conditions that may be made worse by physical exertion (e.g. heart disease, asthma, lung complaints, etc.)
- medical conditions that can result in loss of consciousness (e.g. epilepsy, diabetic conditions, medication that makes a person drowsy, etc.)
- asthma triggered by conditions (e.g. cold water, saltwater mist, etc.)
- age (e.g. older people)
- if overweight
- vision impairment
- hearing impairment.

4.2 Information provided pre-activity

Pre-activity information provided to participants should clearly communicate:

- information as detailed in the Core GPG - Information provided pre-activity
- relevant aquatic hazards and risks
- clothing and footwear requirements
- when participants should advise they have a relevant medical condition.

5 Environment

5.1 Environment related planning

The *marine safety agency*, land owner and/or *land manager* law(s), regulation(s) and/or requirements must be complied with.

Environment planning considerations must include:

- access and exit to the site including remoteness
- tides
- rips and currents
- wind direction and strength
- wave and swell height and direction
- water depth
- water temperature
- water quality
- water visibility
- surface visibility
- the other users including watercraft and fishing activities
- site features (e.g. reef formations, sand bars, bottom gradient, submerged rocks, underwater caves, wrecks, etc.)
- local marine life
- entanglement hazards.

5.2 Weather and water conditions information

5.2.1 Weather information

Appropriate sources must be used for recent, current and forecast:

- weather
- weather warnings
- water conditions.

See Beaufort Wind Force Scale in Appendix 1 Beaufort Wind Force Scale.

See Weather warnings information in Appendix 2 Weather information.

5.2.2 Water conditions information

Sources of water conditions information must include:

- the Bureau of Meteorology relevant marine conditions information
- the Bureau of Meteorology relevant water level information and flood warning information
- relevant local information sources (e.g. marine safety agency, land managers, volunteer rescue organisations, river gauges, dam operators etc.)
- inspection of the site.

5.3 Snorkelling conditions

5.3.1 Weather

Weather conditions must be assessed prior to the activity.

Weather conditions must be monitored throughout the activity.

Weather conditions considerations must include:

- wind strength
- wind direction
- temperature
- rain
- lightning
- surface visibility.

Additional consideration must be given if weather conditions:

- have a surface visibility that limits the ability to monitor the group effectively
- with winds directly affecting the site of 11 knots (20 km/hr) or greater (i.e. moderate breeze on Beaufort Scale – see Appendix 1)
- while thunder can be heard.

5.3.2 Water conditions

Water conditions must be assessed prior to the activity.

Water conditions must be monitored throughout the activity.

Water condition considerations must include:

- tides and slack water periods
- currents (i.e. tides, rips, longshore, outlet, channel and structural) and their direction
- wave (i.e. wind, swell, tidal, long, reflected and Tsunami) height and direction
- surf conditions
- water depth (e.g. will waves break, reef depths, conditions based on tide such as ocean bars etc.)
- water temperature
- water quality
- water visibility
- maximum depths at the site.

Surf conditions may include:

- wave height
- wave type (plunging or spilling breaking waves or surging waves)
- location of surf in relation to activity.

Additional consideration must be given if water conditions:

- have a visibility underwater that limits the ability to monitor the group effectively
- have a wave or swell height that limits the ability to monitor the group effectively.

5.3.3 Water quality

Areas where the water is known to be polluted or contaminated and would pose a risk to human health must be avoided.

Polluted or contaminated water may include water impacted by:

- chemicals
- oil
- rubbish
- sewage
- upstream runoff (e.g. urban runoff such as oil from roads, industrial operations etc.)
- animal carcases or waste
- waterborne microorganisms (e.g. E.coli, Giardia, blue-green algae).

5.4.4 Entry and exit

Entry and exit to the site must be:

- reviewed for obstacles and hazards
- suitable for the fitness and physical capabilities of the participants.

Also see Appendix 6 – Water entry and exit.

5.4 Lightning

A procedure for reducing the risk of being struck when lightning occurs must be implemented.

Bureau of Meteorology (BOM) services should be used where available to assess lightning risk.

Whilst thunder is audible groups should avoid:

- *snorkelling*
- being on high locations
- being in unsuitable locations.

When thunder is audible, a suitable location should be sought, to wait out the thunderstorm.

Considerations for locations to waiting out the thunderstorm should include but not limited to avoiding:

- being on the water
- being on high structures
- being connected to metal structures, cable or equipment
- being on the highest ground in the area
- tall trees or structures that may act like a lightning rod
- water saturated ground near watercourses
- locations where group is unable to spread out
- caves.

5.5 Flooding

Areas likely to experience *flash flooding* or flood water runoff should be avoided during severe weather or thunderstorms.

5.6 Weather and water condition trigger points

Trigger points must be based on the relevant Bureau of Meteorology weather warnings and actual weather conditions.

The risk management plan and emergency management plan must include guidance on *trigger points* and associated actions for:

- tide movements
- rips and currents
- wind direction and strength
- wave and swell height
- water quality
- water visibility
- surface visibility
- severe weather warnings
- thunderstorm warnings
- hazardous surf warnings
- marine wind warnings
- tsunami: watch and warning

- tropical cyclone advice: watch and warning
- extreme cold temperature
- extreme hot temperatures.

Actions for *trigger points* may include but are not limited to:

- cancellation of activity
- postponing the activity
- moving the activity site
- avoid sites affected
- moving to areas that are protected from the effects
- evacuating to a safe location.

5.7 Marine safety agency, land managers and traditional owners

5.7.1 Marine safety agency and land managers requirements

Also refer to the Core GPG - Land owner and/or manager.

Procedures must be used to determine and comply with all relevant *marine safety agency* and *land manager* requirements.

Land managers may include:

- a national *marine safety agency*
- marine safety agencies in the jurisdiction of operation
- harbourmasters in port jurisdictions
- marine authorities
- marine national park or national park authorities
- marine sanctuary authorities
- local waterway managers.

5.7.2 Marine navigation requirements

Relevant requirements must be complied with where indicated by:

- buoyage systems (i.e. lateral, cardinal, isolated danger, special and safe water marks)
- zone signage (i.e. buoys and beacons)
- navigation signals (i.e. navigation lights, dayshapes, code flags and whistle signals)
- areas of commercial operation.

5.7.3 Traditional owners

Procedures should be used to determine and comply with any traditional owner and cultural heritage requirements.

5.8 Wildlife safety

5.8.1 Wildlife safety considerations

Procedures should be in place to minimise the risks associated with local fauna and flora that may be encountered.

The types of wildlife encounters that may need to be considered include but is not limited to:

- blue ring octopus
- cone shells
- crocodiles
- jellyfish
- sea snakes

- sharks
- stingrays
- stone fish
- any other relevant aquatic wildlife found in the area.

5.8.2 Jellyfish

Procedures should be in place to minimise the risks associated with jellyfish stings including:

- appropriate risk assessment before the activity
- selecting suitable areas
- briefings on avoiding contact
- consideration of the use of protective clothing
- appropriate first aid treatment training
- having available appropriate first aid treatment equipment and supplies.

5.8.3 Sharks

The risk management plan should consider:

- if shark deterrent devices should be carried
- areas and conditions that are likely to have higher shark activity (e.g. run off areas after heavy rain, warmer temperature water areas, dawn, dusk etc.)
- referral to shark monitoring or reporting information for shark activity.

5.8.4 Wildlife swims

Wildlife swim laws and regional *land manager* marine animal requirements must be complied with (e.g. water body, marine national park or marine sanctuary).

Procedures relating to marine animals may include but is not limited to:

- staying clear of free-swimming animals
- not blocking or attempt to alter the natural path of free-swimming animals
- keeping a specific distance away
- keeping a constant direction and avoiding sudden direction changes
- not approaching head on
- not separating individuals from their group
- not coming between a mother and their young
- avoiding birthing areas.

5.9 Environmental sustainability procedures

The procedures may include but are not limited to procedures listed in Core GPG - Environmental sustainability and the following:

5.9.1 Plan ahead and prepare

Refer procedures listed in Environmental sustainability section in Core GPG – Appendix J.

5.9.2 Travel on durable surfaces

Travelling in an area on durable services may include but is not limited to:

- practicing basic techniques with beginner snorkelers in environments that are not likely to be adversely affected (e.g. sandy areas, areas of bare rock)
- following natural paths and water currents (e.g. direction of currents along the reef walls)
- avoiding touching, hitting or kicking features by:
    - being mindful of fin locations
    - avoiding shallow and narrow features
    - not touching or handling coral

    - not kicking up sand from the bottom
- choose the deepest channel or groove to swim over
- swimming rather than walking
- not walking on reef surfaces
- selecting appropriate entry and exit points to minimise impact on plants and/or animals
- using designated access points.

5.9.3 Dispose of waste properly

Disposal of waste properly may include but is not limited to:

- carry out food and general waste (e.g. plastic bags, 6 pack plastic holders, etc.)
- carry out human waste and personal hygiene waste
- when safe to do so, removing and dispose of any fishing line found.

5.9.4 Leave what you find

Leave what you find may include but is not limited to:

- before moving to new locations clean equipment to avoid spread of pest plants or animals
- leave all coral or shells where they are
- leave all fora and fauna where they are
- leave all artefacts or cultural heritage items where they are.

5.9.5 Respect wildlife

Respecting wildlife may include but not limited to:

- avoid touching or handling wildlife or benthos zone organisms
- not feeding fish, birds or other wildlife
- staying clear of free-swimming animals
- not blocking or attempt to alter the natural path of free-swimming animals
- staying clear of breeding areas
- practicing basic techniques with beginner snorkelers in environments that are not likely to be adversely affect marine animals
- keep fins and equipment (e.g. cameras, torches) away from bottom dwelling animals and plants.

5.9.6 Be considerate of your hosts and other visitors

Be considerate of your hosts and other visitors may include but not limited to:

- use underwater horns only in appropriate circumstances (e.g. emergency situations, herding groups, catching somebody's attention)
- minimise disturbance to other users
- conform to fishing requirements including licensing and size/volume restrictions.

6 Equipment and logistics

6.1 Equipment requirements

6.1.1 Personal attire

Procedures must be in place to ensure appropriate clothing and *personal thermal protection* is available and fit for purpose for the expected and foreseeable weather conditions.

Clothing and/or *personal thermal protection* should be of a colour that makes it easily visible for activity leaders or lookouts and other water users.

Procedures must be in place to ensure reasonable and appropriate sun safety equipment and measures are taken.

Having available appropriate extra clothing or *personal thermal protection* must be considered.

Consideration for carrying extra clothing or *personal thermal protection* may include:

- the participants involved
- the *snorkelling* conditions
- the duration of the activity.

Refer to the list of equipment to consider in Appendix 4.

6.1.2 Activity equipment

Activity equipment listed should be manufactured for use in the context of the activity:

- diving masks
- snorkels
- fins
- devices used for *buoyancy* control (e.g. weight belts, buoyancy vests for snorkelling, wetsuits).

Any *marine safety agency*, land owner and/or *land manager* law(s), regulation(s) and/or requirements for rescue equipment must be complied with.

An appropriate design standard for rescue equipment must be used where one is available.

All weight belts must have a quick release mechanism.

A range of masks with different shapes and sizes should be available to fit different users and/or fit over a beard or moustache.

Refer to the list of equipment to consider in Appendix A4.1.

6.1.3 Emergency equipment

6.1.3.1 Rescue equipment

The rescue equipment available must be appropriate for use in the context of the activity.

Rescue equipment each *activity leader* must have readily available for use includes:

- a whistle appropriate for water environments
- a suitable means of cutting fishing line or rope
- a means of towing a person.

Activity leaders snorkelling should have a towed float or *buoyancy aid*.

Throw bags if used must be of an appropriate design and use floating rope.

Additional rescue equipment to consider may include appropriate hoist systems for lifting unconscious or heavy people from the water. (For example, being able to lift the person out of the water onto a watercraft if it is used as the base for snorkelling.)

Refer to the list of equipment to consider in Appendix A4.2.

6.1.3.1 First aid equipment

Where available, any medical oxygen supply must be appropriately maintained by an appropriately competent person or service agent.

Where available, any Automated External Defibrillator (AED) must be appropriately maintained by an appropriately competent person or service agent.

Also refer to 3.2 Emergency management planning and Appendix A4.4.

6.1.4 Shark emergency equipment

When carried, shark deterrent devices should be appropriate for use in the context of the activity.

Consideration for the use of shark deterrent devices should include if they are appropriate for the area (e.g. marine protected area requirements).

Refer to the list of equipment to consider in Appendix A4.3.

6.1.5 Communications equipment

The communications equipment available must be appropriate for use in the context of the activity and local laws or regulations.

Refer to the list of equipment to consider in Appendix A4.5.

6.1.6 Navigation and group management equipment

The type of navigational markers (e.g. dive flags) used must be appropriate for use in the context of the activity and local laws or regulations.

Floats, markers and lines used for group management should be appropriate for use in the context of the activity.

Refer to the list of equipment to consider in Appendix A4.6.

6.1.7 Other equipment

Refer to the list of equipment to consider in Appendix A4.7.

6.2 Use of equipment

All equipment must be used with reference to the manufacturers instructions.

All equipment must be checked that it is serviceable before each activity or before being used.

Where available, any medical oxygen supply must have the level of oxygen checked to confirm it is at the required level prior to leaving for the activity site.

Electronic shark deterrent devices must be confirmed to have sufficient charge prior to use.

Procedures must be used so that relevant provided equipment is hygienic.

Provided equipment that may require hygiene procedures includes but is not limited to:

- snorkels
- masks
- wetsuits and other personal attire or *personal thermal protection*
- fins.

Prior to use of equipment, all relevant people must receive appropriate training and advised of any relevant manufacturers instructions or limitations.

Also refer colour coding systems for higher risk participants and *activity leaders* in the 7.4.5.2 Easy identification section.

6.3 Maintenance of equipment

Equipment and inspection records must conform with any legislative or regulatory requirements.

Appropriate procedures must be in place for equipment inspections and determining the time periods between inspections.

A retirement of equipment policy should be developed.

Considerations for a retirement of equipment procedure may include but is not limited to:

- type of use
- frequency of use
- prevailing conditions when used
- actual deterioration, wear and tear
- extreme usage events or patterns
- age
- years in service
- manufacturers recommendations.

6.4 Storage of equipment

Activity equipment should be stored with reference to the manufacturers recommendations or instructions.

Considerations for storage of equipment may include but is not limited to:

- equipment is clean and dry
- the storage is free from harmful chemicals
- the storage is free from damp conditions
- the storage is free from environmental exposure including Ultraviolet (UV) light and avoids extremes of temperature
- the storage is free from interference of fauna or vermin.

7 Leadership

7.1 Naming conventions

The *activity leader* naming convention enables this activity GPG to be related to Core GPG requirements.

The leadership naming conventions for *snorkelling* activities are:

Snorkelling guide: a person with the competence to enable participants to do the activity while under supervision.

Snorkelling instructor/supervisor: a person with the competence to instruct participants so that they may undertake the activity independently without supervision or minimal supervision and to supervise other snorkelling guides.

Snorkelling guide and snorkelling instructor/supervisor are equivalent to Leader in the Core GPG.

An *activity leader* is the collective noun for either snorkelling guide or instructor/supervisor.

A *lookout* is a suitably briefed *responsible person* who monitors the participants during the activity. While an *activity leader* can take on the role of a *lookout*, this document uses the term to indicate this person is not a competent snorkelling guide or instructor/supervisor.

7.2 Competencies

7.2.1 Competencies overview

The AAAS and GPGs refers to units from the Sport, Fitness and Recreation Training Package for descriptive statements of the knowledge and skills required of *activity leaders*.

The Training Package units are used for the sole purpose of providing descriptions for the knowledge and skills required. It is not intended to imply or require that specific formal training, assessment or qualification is the only means of gaining or recognising knowledge and skills.

Providers can recognise *activity leaders* as having the 'ability to apply knowledge and skills to achieve expected results' (i.e. *competencies*) in a number of different ways as detailed in the Core GPG - Recognition of competence.

The Training Package units listed can be found by searching for the units on the training.gov.au/Home/Tga website. The code provided with the unit name assists in this search.

7.2.2 Snorkelling leadership competencies

Recommended competencies are in Appendix A7 Leader competencies.

The requirements for currency of competencies must be determined by the risk management plan. (Refer the Core GPG – Ensuring current competence section).

Evidence of undertaking *snorkelling* activity within a reasonably recent time frame must be part of determining the currency of *activity leader* competencies.

7.2.3 Recognition pathways

Refer to considerations for recognition pathways outlined in Core GPG - Recognition pathways.

7.3 Supervision

7.3.1 Supervision and group size considerations

The appropriateness of the *supervision ratio* and group size must be assessed throughout the activity based on the current weather and/or water conditions. (For example, declining water quality during the activity may require changes to the group size or supervision ratio.)

Considerations when determining the *supervision ratio* and group size for *snorkelling* must include:

- the type of water body i.e. *open water* or *confined water*
- characteristics of the water body (e.g. location, size, etc.)
- water body conditions and changes in those conditions
- weather conditions and changes in those conditions
- water temperature
- the length and how committing the *snorkelling* activity will be to reach a suitable egress
- participant swimming ability and *snorkelling* experience
- participant age
- if *snorkel diving* will be involved
- the number of higher risk participants in the group
- considerations for determining supervision requirements in Core GPG.

7.3.2 Recommended supervision

Appropriate supervision must be provided at all times during the activity.

Supervision must be determined on a case by case basis taking into account the above-mentioned considerations and the recommendations below.

The recommended *activity leader* supervision for:

- *snorkel swimming* in *confined waters* should be a maximum of 1 *activity leader* to 16 participants *snorkelling*
- *snorkel swimming* should be a maximum of 1 *activity leader* to 10 participants *snorkelling*
- *snorkel diving* should be a maximum of 1 *activity leader* to 8 participants *snorkelling* where a buddy system is used
- *snorkel diving* should be a maximum of 1 *activity leader* to 4 participants *snorkelling* where no buddy system is used.

The recommended total group size should be 30 participants snorkellers (not including *activity leaders*).

Where groups exceed 20 participants *snorkelling*, separate groups should be formed so each *activity leader* can supervise their own group.

A risk assessment must be completed to determine if the use of *lookouts* is appropriate and/or required.

7.3.3 Snorkelling lookouts

7.3.3.1 Using lookouts

A *lookout*:

- is not *snorkelling*
- assists the *activity leader(s)* in monitoring the participants
- may be a suitably briefed *responsible person* who monitors the participants during the activity
- may be an *activity leader*
- is able to take steps quickly to either address issues as briefed (e.g. requesting a participant to stay or move to within an area) or inform *activity leaders* of issues for them to action.

Lookouts when used must be appropriately briefed regarding how undertake the role including hazards to monitor and indicators of increased participant risk.

A *lookout* who is not an *activity leader* (i.e. is a suitably briefed *responsible person*) should not take on *activity leader* roles or be used in place an *activity leader* for the supervision ratio requirements.

(For example, having 20 participants and only 1 *activity leader* along with 1 *lookout* who is a suitably briefed *responsible person* should not occur but having 1 *activity leader* along with 1 *activity leader* acting as a *lookout* may be appropriate depending on the risk management plan, site and circumstances.)

Lookouts should have:

- no other task than to monitor snorkelers in the water, except where they are also responsible for rescues and/or first aid
- a location out of the water
- a location that allows visibility of their designated area and where possible the whole activity area
- a location that enables them to take action quickly to address issues or inform *activity leaders* of issues (e.g. a lookout located on a beach that cannot effectively communicate with participants or activity leaders to intervene in a reasonable time is not likely to be a suitable supervision option)
- binoculars and polarised sunglasses to improve visibility across and into the water
- breaks after every 60 minutes.

7.3.3.2 Effective lookouts – considerations

Considerations to improving the effectiveness of *lookouts* includes:

- having an elevated location
- the location being distraction free (both visual and/or audible)
- having binoculars and polarised sunglasses
- being aware of the system used to identify higher risk participants (e.g. vests, buoyancy aids, colour coding of equipment etc.)
- moving the head while scanning, not just the eyes
- scanning using patterns and zones to cover the whole area at least once every 60 seconds
- changing scanning patterns periodically
- looking into the water, as well as on the surface
- focusing on each snorkeller and checking them for movement or signs of distress
- giving greater attention to higher risk snorkellers
- giving greater attention to those in higher risk environment situations, especially those that are down current or at the limits of the *snorkelling* area
- being aware of conditions that affect visibility such as glare, shadows and poor in-water visibility
- changing position to see into areas if needed

- using a mixture of sit, stand and walking while scanning
- taking breaks and rotating duties
- passing on relevant information to the new *lookout* when handing over *lookout* duties
- having enough sleep and being well rested
- avoiding overheating and dehydration in hot conditions
- staying warm and comfortable in cold conditions
- having effective sun and UV protection.

7.4 Management during the activity

7.4.1 Activity briefing

Before undertaking an activity, the information and requirements to be communicated to participants may include but are not limited to:

- entry and exit points from the water
- explanation of the *snorkelling* area and boundaries (e.g. landmarks, flags, banners, buoys etc.)
- location of and ways to avoid potential environmental hazards
- correct fitting and use of equipment
- an explanation of signals (e.g. calls, hand signals and whistle)
- recall procedures
- where used how the buddy system operates including the lost buddy procedure
- emergency responses
- *buoyancy aids* available
- hazards relating to *shallow water blackout*
- restrictions and procedures related to *snorkel diving*
- other relevant risk management procedures
- requirements relating to completing head counts (e.g. sign in procedures)
- the location of *lookouts*
- requirements relating to wildlife
- strategies for environmental conservation.

7.4.2 Knowledge of the site

The knowledge and experience of the activity site that *activity leaders* require before leading participants at that site, should be considered when allocating *activity leader* roles.

7.4.3 Buoyancy of participants

Participants undertaking snorkel swimming should be positively buoyant.

Higher risk participants must be positively buoyant, except where they are a higher risk due to undertaking *snorkel diving*. (Where *snorkel diving*, refer section 7.4.5.5 Snorkel diving.)

7.4.4 Higher risk participants considerations

Activity leaders and *lookouts* should monitor all snorkellers, with greater attention given to *higher risk participants* (refer 4.1 Participant considerations section for details of who are *higher risk participants*).

Activity leaders and *lookouts* should monitor any snorkellers with greater attention who:

- are *snorkelling* down current
- are at the limits of the *snorkelling* area.

7.4.5 Higher risk participants – risk mitigation

7.4.5.1 Risk mitigation measures

Risk mitigation measure for *higher risk participants* may include but is not limited to:

- given appropriate information and instruction

- using a system to easily identify those participants at higher risk while *snorkelling*
- providing them with additional *buoyancy aids*
- using a buddy pair system
- provide guided activities and encourage them to take part
- request they stay within areas close to *activity leaders* or *lookouts*
- provided additional assistance, where applicable, when they are entering and exiting the water to reduce their physical exertion
- changing to a site that is more appropriate
- requesting that they avoid *snorkelling* on this current occasion and/or in a particular site.

7.4.5.2 Easy identification

A means of easily identifying *higher risk participants* from a distance should be used.

A means of easily identifying *activity leaders* from a distance should be used.

Ways to identify *higher risk participants* and *activity leaders* may include:

- providing different coloured equipment (e.g. snorkels, fins, wetsuits)
- providing a coloured vest
- attaching coloured ribbons
- wearing and/or use a *buoyancy aids* (e.g. noodles, or snorkelling vests).

Equipment and clothing colour coding systems

A*ctivity leaders* should have their own separate colour in any colour coding system.

Where a colour coding system to *identify higher risk* participants is used, activity equipment, clothing and/or *personal thermal protection* provided should either:

- comply with the colour coding system
- or not cause a conflict with the colour coding system (i.e. incorrectly identify someone as not being at higher risk when they are or as an *activity leader* when they are not).

7.4.5.3 Buoyancy aids

Higher risk participants should be encouraged to use a *buoyancy aid* to support them.

Buoyancy aids may include:

- snorkelling vests
- kick boards
- life rings
- tubes (e.g. noodles).

Some type of *buoyancy aid* should be readily available to give to any snorkeller who appears tired or distressed.

7.4.5.4 Buddy pair system

A buddy pair system should include:

- *snorkelling* together for the duration of the activity
- if separated attempting to locate their buddy in the first instance
- advise an *activity leader* or *lookout* if they cannot locate their buddy
- where identified that a person in a buddy pair is *snorkelling* alone, they are directed to return to the entry/exit location or to an *activity leader* until their buddy is located
- direct buddy pairs to snorkel in an area which allows the *activity leader* or *lookout* to offer closer supervision
- encouraging *snorkel swimming* pairs to hold hands.

Higher risk participants should be encouraged to snorkel with a buddy pair.

7.4.5.5 Snorkel diving

A risk assessment must determine if participants are permitted to undertake *snorkel diving* and if they are permitted to use of buoyancy altering equipment.

Additional risk management procedures should be implemented when *snorkel diving*.

Risk management procedures for *snorkel diving* should include:

- using a buddy pair system to monitor every dive
- each buddy pair operates on the basis of one on the surface while the other is diving
- briefing on hyperventilation and extended breath holding and the risk of *shallow water blackout*
- briefing on equalising ear pressure and mask squeeze
- using appropriate equipment to manage their required *buoyancy*
- confirming competence in using any *buoyancy* altering equipment if used (e.g. weight belts)
- remaining above an appropriate depth.

Where *snorkel diving* that is deeper than 1.5 metres each participants *buoyancy* should not become negatively buoyant without a means of adjusting it to become positively buoyant in an emergency.

7.4.6 Head counts

Procedures for head counts must include:

- completing a head count before the activity commences to confirm the number of people to be accounted for
- a means of adjusting the head count if anyone leaves the activity for any reason or by any means
- completing a head count after activity completion and before departing any *snorkelling* site.

7.4.6.1 Passive count systems

Head counts using a passive *count system* must be conducted twice each time a head count is required, to confirm the correct number of people are present.

When a head count is required using a passive *count system* it should be conducted by two different people.

7.4.6.2 Active count systems

Considerations for using an *active count system* includes:

- the number of participants involved in the activity (e.g. over 50 participates it may become less feasible)
- the time it takes to complete.

7.4.7 Night snorkels

The appropriateness of undertaking night snorkels and the related risk management procedures must be determined by the risk management plan.

The risk management plan considerations must include the:

- appropriateness of higher risk snorkellers undertaking the activity
- appropriateness of *snorkel diving* during activity
- appropriate *activity leader* to participant supervision ratio
- the suitability of the area used
- what conditions are suitable for night *snorkelling*
- any additional risk management procedures needed for *snorkelling* at night.

Risk management procedure for night *snorkels* must include:

- all snorkellers having a light-stick suitably attached to their person that can be seen while *snorkel swimming* (e.g. attached to the wetsuit near the back of the neck, avoiding attaching to equipment items that might become separated from the snorkeller such as the snorkel)
- all snorkellers having their own torch
- *activity leaders* are separately identifiable (e.g. different coloured light-stick)
- *activity leaders* having a backup torch
- marine navigation markers and/or light requirements for the jurisdiction of operation are followed
- a buddy pairs system is used.

7.4.8 Other activity management procedures

Procedures to continuous monitor weather and water conditions must be developed and implemented.

A system of clear & unambiguous verbal or non-verbal communications must be used to manage the activity.

Snorkelling in areas where fishing and spear fishing is occurring should be avoided.

Where underwater horns are used, procedures for their use should be developed and implemented.

Snorkelling activities should be structuring where possible to allow participants the ability to rest when necessary.

Entry into the water must be feet first.

Procedures must address risks associated with entry into water (e.g. from rocks, jetties, etc.). Refer Appendix 6 Water entry and exit for activity management considerations.

Glossary

Also refer to Terms and definitions in Core GPG.

AAAS: Australian Adventure Activity Standard – See Introduction for details.

Active count system: a *count system* that requires the people being counted to actively participate in the counting process. (For example, roll call, tagging or signing). These systems tend to be slower than *passive count systems* but are less prone to error.

Activity leader: the collective noun for *snorkelling* guides and instructors.

Beaufort Wind Force Scale (also referred to as the "Beaufort Scale"): a system for estimating wind strengths without the use of instruments, based on the effects wind has on the physical environment.

Buddy pair system: refer section 7.4.5.4

Buoyancy: the ability or tendency of something to float in water. A snorkeller's *buoyancy* is described as positive, neutral and *negative buoyancy* (see individual definitions).

Buoyancy aids: an item or device that provides additional *buoyancy*. Aids may include a snorkelling vest, kick boards, noodles etc.

Competence: ability to apply knowledge and skills to achieve expected results.

Competent person: someone who has the *competence* to perform specific functions.

Confined water: a *swimming pool* or a naturally formed water site no larger in area than approximately an Olympic size *swimming pool* with a depth of less than 5 metres, and which offers *swimming pool* like

conditions with respect to water clarity and calmness. For area sizing of naturally formed water sites, an Olympic size *swimming pool* is used.

Count system: a means of confirming if all participants are present or not. Used to confirm if all participants are accounted for and/or have returned from *snorkelling*. There are two types of *count system*, see passive *count system* and *active count system*.

Flash Flooding: is flooding in a localised area with a rapid onset, usually as the result of relatively short intense bursts of rainfall.

Free diving: *snorkel diving* with the primary focus of holding ones breath for as long as possible and/or diving to the greatest depth possible.

GPGs: Good Practice Guide(s) – See Introduction for details.

Higher risk participants: Refer section 4.1 Participant considerations.

Hypoxic blackout: see *shallow water blackout*.

Knot(s): A measurement of speed used in nautical situations. One knot is one nautical mile per hour. (1 Knot = 1.852 Kilometres per hour.)

Land manager: the organisation or owner with jurisdiction over the waterway or water body the activity is conducted. Land manager may include marine authorities, marine national park or sanctuary authorities, harbourmasters etc. Note that is may differ from the *marine safety agency*. The requirements of both the *land manager* and the *marine safety agency* need to be considered.

Lookout: a suitably briefed *responsible person* who monitors the participants during the activity. This may or may not be an *activity leader*.

Marine safety agency: the statutory organisation that regulates the safety of watercraft and their operations, in the jurisdiction the activity is conducted.

Nautical Mile: a nautical mile (NM) is a unit of distance equal to 1,852 metres (1.852km).

Neutral buoyancy: the tendency of something to remain floating at its current depth in water. The weight is equal to the water it displaces so it neither rises or sinks.

Negative buoyancy: the tendency of something to sink towards the bottom in water. The weight is heavier than the water it displaces.

Open water: any body of water that is not *confined water*. (See definition *confined water*.)

Passive count systems: a *count system* that requires little participation by the people being counted. (For example, a head count.) These systems tend to be quicker and less intrusive but are also more susceptible to error. If passive systems are used, the count must be conducted twice and wherever possible by different people.

Personal thermal protection: clothing worn to mitigate the effects of the temperature of the environment.

Positive buoyancy: the tendency of something to rise to the surface of water and float. The weight is lighter than the water it displaces.

Responsible person: a *competent person* who is able to complete delegated elements or tasks during an activity that does not require the activity-specific competence of an *activity leader*.

SCUBA: acronym for Self-Contained Underwater Breathing Apparatus.

SCUBA Diving: being submerging and swimming below the water surface with the aid of compressed gas to breath.

Shallow water blackout: a loss of consciousness under water caused by a lack of oxygen to the brain following breath-holding. (Also known as *hypoxic blackout*.)

Snorkel: a short tube through which a person swimming just under the water surface can breath through.

Snorkel swimming: *snorkelling* on the surface of the water.

Snorkel diving: *snorkelling* involving submerging and swimming below the water surface while holding ones breath.

Snorkelling: swimming with the aid of a *snorkel* to breath.

Supervision ratio: the number of *participants* that an *activity leader* may supervision, expressed as a ratio. For example, the ratio 10:1 means 10 participants to 1 activity leader.

Swimming pool: an artificial pool for swimming in. For area sizing of *confined water*, an Olympic size *swimming pool* is used.

Trigger point: a particular circumstance or situation that causes an action to occur.

Appendices

Appendix 1 Beaufort wind force scale

The Beaufort Wind Force Scale (Beaufort Scale) is a system for estimating wind strengths without the use of instruments, based on the effects wind has on the physical environment.

Beaufort number	Description	Wind speed	Wave height	Sea conditions	Land conditions
0	Calm	< 1 knot	0 ft	Sea like a mirror	Smoke rises vertically.
		< 1 mph			
		< 2 km/h	0 m		
		< 0.5 m/s			
1	Light air	1–3 knots	0–1 ft	Ripples with appearance of scales are formed, without foam crests	Direction shown by smoke drift but not by wind vanes.
		1–3 mph			
		2–5 km/h	0–0.3 m		
		0.5–1.5 m/s			
2	Light breeze	4–6 knots	1–2 ft	Small wavelets still short but more pronounced; crests have a glassy appearance but do not break	Wind felt on face; leaves rustle; wind vane moved by wind.
		4–7 mph			
		6–11 km/h	0.3–0.6 m		
		1.6–3.3 m/s			
3	Gentle breeze	7–10 knots	2–4 ft	Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses	Leaves and small twigs in constant motion; light flags extended.
		8–12 mph			
		12–19 km/h	0.6–1.2 m		
		3.4–5.5 m/s			
4	Moderate breeze	11–16 knots	3.5–6 ft	Small waves becoming longer; fairly frequent white horses	Raises dust and loose paper; small branches moved.
		13–18 mph			
		20–28 km/h	1–2 m		
		5.5–7.9 m/s			
5	Fresh breeze	17–21 knots	6–10 ft	Moderate waves taking a more pronounced long form; many white horses are formed; chance of some spray	Small trees in leaf begin to sway; crested wavelets form on inland waters.
		19–24 mph			
		29–38 km/h	2–3 m		
		8–10.7 m/s			
6	Strong breeze	22–27 knots	9–13 ft	Large waves begin to form; the white foam crests are more extensive everywhere; probably some spray	Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty.
		25–31 mph			
		39–49 km/h	3–4 m		
		10.8–13.8 m/s			
7	High wind, moderate gale, near gale	28–33 knots	13–19 ft	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind; spindrift begins to be seen	Whole trees in motion; inconvenience felt when walking against the wind.
		32–38 mph			
		50–61 km/h	4–5.5 m		
		13.9–17.1 m/s			

Beaufort number	Description	Wind speed	Wave height	Sea conditions	Land conditions
8	Gale, fresh gale	34–40 knots	18–25 ft	Moderately high waves of greater length; edges of crests break into spindrift; foam is blown in well-marked streaks along the direction of the wind	Twigs break off trees; generally impedes progress.
		39–46 mph			
		62–74 km/h	5.5–7.5 m		
		17.2–20.7 m/s			
9	Strong/severe gale	41–47 knots	23–32 ft	High waves; dense streaks of foam along the direction of the wind; sea begins to roll; spray affects visibility	Slight structural damage (chimney pots and slates removed).
		47–54 mph			
		75–88 km/h	7–10 m		
		20.8–24.4 m/s			
10	Storm, whole gale	48–55 knots	29–41 ft	Very high waves with long overhanging crests; resulting foam in great patches is blown in dense white streaks along the direction of the wind; on the whole the surface of the sea takes on a white appearance; rolling of the sea becomes heavy; visibility affected	Seldom experienced inland; trees uprooted; considerable structural damage.
		55–63 mph			
		89–102 km/h	9–12.5 m		
		24.5–28.4 m/s			
11	Violent storm	56–63 knots	37–52 ft	Exceptionally high waves; small- and medium-sized ships might be for a long time lost to view behind the waves; sea is covered with long white patches of foam; everywhere the edges of the wave crests are blown into foam; visibility affected	Very rarely experienced; accompanied by widespread damage.
		64–72 mph			
		103–117 km/h	11.5–16 m		
		28.5–32.6 m/s			
12	Hurricane force	≥ 64 knots	≥ 46 ft	The air is filled with foam and spray; sea is completely white with driving spray; visibility very seriously affected	Devastation.

Appendix 2 Weather information

A2.1 Weather warnings

The following table details the:

- current Australian weather warnings
- associated possible weather for each warning
- mainland warning trigger points for issuing warnings for strong winds and hail.

Bureau of Meteorology weather warnings and associated weather Table:

Severe Weather Warning	**Severe Thunderstorm Warning**	**Marine Wind Warning**	**Tropical Cyclone Advice: Watch or Warning**
High tides			
Large surf			
Blizzards			
Heavy rain/flash flooding	Heavy rain/flash flooding		
Strong winds Wind >63 km/h Gusts >90 km/h	Strong winds Gusts >90 km/h	Strong winds Wind >48 km/h or >26 knots	Strong winds Wind >62 km/h or >=34 knots
	Tornadoes		
	Hail (>=2cm)		
	Lightning		

A2.2 Marine related wind warnings:

"Strong winds warning" For winds averaging from 26 knots up to 33 knots (48 km/hr to 61 km/hr)

"Gale warning" For winds averaging above 33 knots up to 47 knots (above 61 km/hr to 87 km/hr)

"Storm Force Wind Warning" Winds averaging above 47 knots and up to 63 knots (above 87 km/hr to 116 km/hr)

"Hurricane Force Wind Warning" Winds averaging above 63 knots or more (above 116 km/hr).

A2.3 Bureau of Meteorology information:

The Bureau of Meteorology also provides a range of services and information can be found at:

http://www.bom.gov.au/weather-services/WeatherGuideMarine.pdf

http://www.bom.gov.au/weather-services/WeatherGuideLand.pdf

http://www.bom.gov.au/marine/knowledge-centre/hazards.shtml

Appendix 3 Snorkelling and diving related information to consider

A3.1 Snorkelling

The following may have relevant information to consider:

Australia:

- Office of Industrial Relations, Workplace health and Safety Queensland:
    - Recreational Diving, Recreational Technical Diving and Snorkelling Code of Practice 2018
    - Snorkel Safety: A guide for workers (undated)
- AS/NZS 2299.3:2003 Occupational diving operations – Recreational industry diving and snorkelling operations.

International:

- ISO 13289: 2011 Recreational Diving Services – Requirements for the conduct of snorkelling excursions
- ISO 13970: 2011 Recreational Diving Services – Requirements for the training of recreational snorkelling guides

A3.2 Diver training agency standards

The following diver training agency standards may have relevant snorkelling information to consider.

Diver training agency standards are standards developed by technical dive training organisations.

Technical dive training organisations may include:

- National Association of Underwater Instructors (NAUI)
- Professional Association of Diving Instructors (PADI)
- Rebreather Association of International Divers (RAID)
- SCUBA Diving International (SDI)
- SCUBA Schools International (SSI)
- Technical Diving International (TDI)
- or those based on the minimum international standards recognised by the Recreational SCUBA Training Council.

Appendix 4 Equipment

A4.1 Snorkelling equipment

Snorkelling equipment may include but is not limited to:

- booties
- fins
- gloves
- hoods
- mask
- snorkel
- weight system or device to control *buoyancy*
- wet suit.

Additional *buoyancy aids* may include but is not limited to:

- kick boards
- life rings
- snorkelling vests
- tubes (such as noodles).

Group management equipment may include but is not limited to:

- coloured vests or ribbon (refer 7.4.5.2 Easy identification)
- area markers, boundary lines and floats
- marine navigation signal flag(s).

A4.2 Rescue equipment

(Also see 6.1.3.1 Rescue equipment.)

Rescue equipment may include but is not limited to:

- appropriate hoist systems for lifting unconscious or heavy people from the water
- dive knife and/or tool
- life ring

- rescue tube/float/buoy with tow line
- throw bag.

A4.3 Shark emergency equipment

Additional emergency equipment may include but is not limited to:

- shark deterrent device (electrical or chemical).

A4.4 Emergency response equipment

Emergency equipment must include but is not limited to:

- appropriate rescue equipment (see 6.1.3 Emergency equipment section)
- an appropriate communication device (see Core GPG - Communication equipment, above section 6.1.5 Communications equipment and A4.5 Communication equipment below)
- first aid kit (see Core GPG - First aid equipment and medication) in waterproof storage
- documentation (see the Core GPG - Emergency management planning and Activity leader required documentation)
- a waterproof method of storing and carrying documentation and communications equipment.

Additional first aid equipment may include but is not limited to:

- automated external defibrillator (AED)
- jellyfish sting first aid supplies
- medical oxygen supply.

A4.5 Communication equipment

Communications equipment may include but is not limited to:

- emergency position indicating radio beacon (EPIRB)
- flares
- light source (e.g. torch, strobe light, chemical light stick)
- mobile phone
- personal locator beacon (PLB)
- satellite phone/communicator
- signalling mirror
- sea emergency water dye
- two-way radio (marine or UHF as appropriate)
- whistles appropriate to water environment.

A4.6 Navigation equipment

Navigation equipment may include but is not limited to:

- appropriate maps
- compass
- GPS navigation unit
- spare batteries for GPS
- waterproof watch.

A4.7 Other equipment

A4.7.1 Repair kit

Repair equipment may include but is not limited to:

- tools and materials appropriate to assist repairs.

A4.7.2 Personal items

Personal items may include but is not limited to:

- contact lens or glasses
- drink bottle
- lip balm
- medication
- personal hygiene products
- sunglasses
- sunscreen.

A4.7.3 Clothing

Clothing may include but is not limited to:

- appropriate footwear
- *personal thermal protection* clothing (e.g. wetsuits, dry suits, thermal underwear etc.)
- swimming caps, sun hats
- sun protection clothing (e.g. 'rash' shirts, long sleeve shirts, board shorts, long pants, etc.)
- wind protection clothing (e.g. spray jacket, rain jacket etc.).

A4.7.4 Other

An appropriate supply of drinking water must be available.

Other items may include:

- food related equipment (e.g. storage, preparation, cooking, serving and cleaning)
- hygiene related equipment (e.g. hand wash system etc.)
- toileting and personal hygiene systems and products (e.g. toileting removal or disposal system, personal hygiene product removal or disposal system etc.)
- waste (e.g. rubbish, food waste etc.) removal system
- camping related equipment (refer Camping GPG).

Appendix 5 Marine safety terminology for waters throughout Australia

A5.1 Terminology used in this document

Confined water: a *swimming pool* or a naturally formed water site no larger in area than approximately an Olympic size *swimming pool* with a depth of less than 5 metres, and which offers *swimming pool* like conditions with respect to water clarity and calmness. For area sizing of naturally formed water sites, an Olympic size *swimming pool* is used.

Open water: any body of water that is not *confined water*.

A5.2 Terminology used by jurisdiction

Marine safety agencies throughout Australia use a range of terms that define the type of water that *snorkelling* might occur on. The following is a list of terminology (as at August 2017).

Jurisdiction	Terms used to describe waters
NSW	Inland waterways, enclosed waters, open waters
NT	Inland waters, intermediate waters (including sheltered waters) and open waters
QLD	Smooth, partially smooth, beyond smooth and partially smooth (open water)
SA	Protected, semi-protected and unprotected
TAS	Smooth, sheltered and coastal
VIC	Inland, enclosed and coastal
WA	Protected and unprotected

A5.3 Terminology used in other good practice guides

Coastal Waters (Also known as open water, unprotected): All waters other than inland waters or enclosed waters and extending a specific number of nautical miles seaward. Refer to the relevant *marine safety agency* for the jurisdiction of operation for details. (Jurisdictions define the coastal waters number of nautical miles seaward differently but generally this is between 2 and 3 nautical miles.)

Inland waters (Also known as smooth waters, protected waters or inland waterways): waters that include rivers (inside the seaward entrance), creeks, canals, lakes, reservoirs and any similar waters either naturally formed or man-made and which are either publicly or privately owned, but does not include any navigable rivers, creeks or streams within declared port waters. Refer to the relevant *marine safety agency* for the jurisdiction of operation for details of declared port waters.

Enclosed waters (also known as partially smooth, semi-protected, intermediate and sheltered.): waters that include enclosed coastal bays, harbours, declared port waters and similar waters that are generally offer some form of limited protection from the environment or weather. Enclosed waters can be the interface between inland waters and/or coastal waters. The relevant *marine safety agency* for the jurisdiction of operation will generally declare what areas are considered enclosed waters. Refer to the relevant *marine safety agency* for details.

Open waters: All waters that are not coastal waters, inland waters or enclosed waters. (Note that the Snorkelling GPG has a **different definition** of open waters – see definition in section A5.1 above.)

Appendix 6 Water entry and exit

Procedures must address risks associated with entry into water (e.g. from rocks, jetties, etc.)

Entry into the water must be feet first.

Procedures to assess the suitability and safety of the water entry and exit must be used.

Appropriate assessment by a suitably *competent* person must be undertaken of the entry and exit area.

Instruction on how to avoid any entry or exit hazards must be provided.

Considerations when assessing the entry and exit area access must include:

- difficulty and exposure of access routes
- exposure to potential falls from height
- the features of the entry areas
- potential for unexpected or uncontrolled entry
- the hazards and obstacles
- the spacing between and the progress of participants so they do not interfere with each others entry.

Considerations when assessing the entry and exit area water must include:

- depth of the water
- obstacles and hazards in the water
- submerged obstacles and their depth
- waves and swell
- current and the speed of the water
- where currents and water flows (e.g. flowing into hazards)
- clarity of water to see if obstacles are present.

Entry into the water activity management considerations should include but is not limited to:

- appropriate assessment of the activity entry area
- jumping is actively prevented and discouraged

- participant management ensures they do not interfere with each others entry
- the entry area is clear of other people before each person enters
- actively managing with *direct supervision* entry into difficult situations
- providing suitable instruction in appropriator entry methods (e.g. seated entry, step off/giant stride)
- providing suitable instruction in keeping mask and *snorkel* in place.

Appendix 7 Leader competencies

A7.1 Snorkelling activity leader competencies

To be read together with the 7.2.1 Competencies overview and 7.2.2 Competencies sections above and the relevant sections in Core GPG - Competencies and Recognition of competence.

The following table outlines the recommended competencies *activity leaders* should have when leading *snorkelling*:

Snorkelling Guide Units describing skills and knowledge	**Code (or equivalent)**	**Snorkelling Instructor/supervisor Units describing skills and knowledge**	**Code (or equivalent)**
common units			
Operate communications systems and equipment	PUAOPE013A	Operate communications systems and equipment	PUAOPE013A
Plan for minimal environmental impact	SISOOPS304A	Plan for minimal environmental impact	SISOOPS304A
Manage risk in an outdoor activity	SISOODR404A	Manage risk in an outdoor activity	SISOODR404A
Coordinate emergency responses	SISXEMR402A	Coordinate emergency responses	SISXEMR402A
Guide		**Instructor^**	
All units listed in Core Good Practice Guide, all common snorkelling units plus		All units listed in Core Good Practice Guide, all common snorkelling units plus	
Demonstrate snorkelling activities	SISOSNK201A	Demonstrate snorkelling activities	SISOSNK201A
Guide snorkelling	SISOSNK302A	Guide snorkelling	SISOSNK302A
Perform basic water rescues or equivalent*	SISCAQU002 or equivalent*	Perform basic water rescues or equivalent*	SISCAQU002 or equivalent*
		Instruct snorkelling skills	SISOSNK403A

Notes:

- ^= Instructor competencies required in training situations:
  - An “instructor” has the competence to instruct participants so that they may undertake the activity independently without supervision or with minimal supervision.
  - This differs from a “guide” and ‘general instruction’ that might be given to enable the participant to do the activity but only under direct supervision of an *activity leader*
- * = Other rescue competencies suitable may include diver training agency rescue competencies OR PUASAR013A Participate in an aquatic rescue operation & PUASAR012C Apply surf awareness and self-rescue skills.
- For units noted as listed in the Core GPG, refer to the Core GPG – Competencies section
- The competencies listed above may be obtained through complying with the requirements of relevant diver training agency standards (refer Appendix A3.2 Diver training agency standards).

A7.2 Snorkelling first aid competencies

Refer the Core GPG - Appendix M2 First aid competencies.

Where a medical oxygen supply is an emergency response requirement, at least one *activity leader* must have the appropriate qualification to administer medical oxygen and it is recommended that all *activity leaders* should be appropriately qualified.

Medical oxygen should only be administered by appropriately competent persons.

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