

## Workplace Health and Safety Queensland



## Fantasea Adventure Cruising

### A case study on managing the medical risks of snorkellers

#### Organisation

Fantasea Adventure Cruising is a Queensland owned adventure cruise and transport operator. They are part of the leading Australian marine transport group, Riverside Marine. Fantasea Adventure Cruising operates ferries between Whitsunday island destinations and delivers reef adventure tours for divers and snorkellers aboard a floating pontoon operating at Hardy Reef.

Fantasea Adventure Cruising employs around 107 staff between its Airlie Beach Island operations, pontoons and vessels.

#### Safety initiatives

A majority of Fantasea's passengers plan to snorkel when they go to the Great Barrier Reef. Snorkelling has potential health and safety risks associated with it, particularly for passengers who are first time participants, not strong swimmers or who may have medical or health problems.

Fantasea has implemented initiatives aimed at managing these risks through a systematic approach.

Key aims of the initiatives were to:

- improve the identification of snorkellers who may be medically at risk
- ensure the risks to snorkellers are individually assessed and recorded
- provide advice to snorkellers about ways in which to snorkel safely
- manage the risks to snorkellers by improving supervision, promoting the use

of flotation devices, reducing exertion, and ensuring any rescues are prompt.

Some of the safety initiatives implemented by Fantasea include:

#### *Welcome brochure*

Upon boarding the vessel, passengers are given a 'welcome aboard' brochure containing advice about medical conditions which could be problematic when snorkelling. The brochure emphasises that passengers will not be prevented from snorkelling. The brochure is offered in eight languages to ensure non-English speakers still receive the important safety message (see appendix 1).

#### *Medical risk assessment guidelines*

During the reef trip, Fantasea crew members circulate among passengers explaining water conditions, tides and any potential hazards they may encounter. Passengers are asked about any medical conditions they may have, in a manner that encourages them to be honest when discussing any relevant issues.

Medical risk assessment guidelines have been developed for crew to assist them in providing advice and rating the risks from medical conditions (see appendix 2).

#### *Snorkel demonstration*

Prior to arrival at the snorkelling destination, a snorkel demonstration is conducted and passengers are requested for a third time to report all medical conditions to the supervisory staff before entering the water. Any medical information received is kept

confidential and only the crew in rescue positions have access to it.

#### *Risk assessment matrix*

Any medical conditions reported by the passenger will be categorised either as low, medium or high risk. Environmental factors are then considered using a 'risk assessment matrix' (see appendix 3).



*Crew member conducting a risk assessment of a snorkelling passenger*

#### *Risk control log*

The risk management advice provided to the passenger is documented on the 'snorkelling risk control log' (see appendix 4) which is kept on the snorkelling platform.

The options for snorkelling advice that may be given are:

- wear a floatation device
- wear visible marking: pink tape on snorkel to identify higher risk, green tape to identify lower risk
- remain close to rope trails
- snorkel with a 'buddy'
- remain within the pink buoyed/restricted area - which requires less exertion and is closer to supervision and rescue
- go on a guided tour or have in water supervision from a competent crew member
- do not snorkel – this will only be used in severe or high risk case.



*A buddy pair of Fantasea snorkellers with individual risk assessment markings on their snorkels*

### **Role of crew and management**

All crew who work with snorkellers receive training and assessment in their roles and how to implement this safety initiative, conducted by Fantasea's experienced in-water safety trainers.

Training involves theory sessions covering snorkel supervision procedures, rescue equipment uses, missing divers and snorkellers and risk assessing medical conditions. In-water training covers a fitness swim, self rescues, rescue aids (life rings, rescue tubes and rescue boards) and various scenarios.

The Fantasea management team pride themselves on the outstanding safety commitment the company has developed and refined over the years. They continue to support and motivate the crew through ongoing annual training and refresher courses to make sure crew can put every effort into the safety and well being of their co-workers and passengers.

### **Outcomes and benefits**

Since implementing this new safety initiative, Fantasea crew have found passengers:

- ✓ are more receptive to safety information
- ✓ will comment positively on the individual attention given by crew and the greater sense of security created for the passengers who know their well-being is in safe hands.

This has proved particularly important at times throughout the year when Fantasea have more than 500 guests on the pontoon at any one time. At these times it is imperative that all crew know the importance of their role in maintaining the safety of the operation and ensuring a premium guest experience.

### **Case study contact**

Heather Thatcher  
Operations Coordinator and In-water Safety Officer  
Fantasea Adventure Cruising

Ph: 0448 613 753

Email: [heather@fantasea.com.au](mailto:heather@fantasea.com.au)

Website: [www.fantasea.com.au](http://www.fantasea.com.au)

## Further information

For more information visit the Workplace Health and Safety Queensland website [www.worksafe.qld.gov.au](http://www.worksafe.qld.gov.au) or call the WHS Infoline on 1300 369 915.

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## Appendix 1 – Fantasea ‘Welcome aboard’ brochure (English version)

### SNORKELLERS

Snorkelling is generally a safe activity, however it can be strenuous, even in calm conditions, and may increase health and safety risks as you will be exerting yourself more than you would normally.

If you suffer from any of the following conditions, you must see the snorkel lookout at Reefworld tower so they can take appropriate steps to ensure your safety whilst in the water.

- ★ Heart disease/High or low blood pressure
- ★ Short of breath (especially when exercising)
- ★ Asthma or emphysema
- ★ Any other chronic lung disease
- ★ Epilepsy
- ★ Fits or faints - recent head injury or concussion
- ★ Diabetes (especially if needing medication)
- ★ Consumption of alcohol today
- ★ Any disability which may affect the normal use of snorkelling equipment

Please be aware that persons over the age of 50 are more likely to suffer from diagnosed & undiagnosed medical conditions that may be made worse by physical exertion, stress or panic.

### HOW TO USE YOUR SNORKELLING EQUIPMENT

#### ★ FINS MUST BE WORN WHILST SNORKELLING

- ★ Snorkelling equipment can be found in large bins at the reef end of Reefworld (see map overleaf).
- ★ Select a pair of fins and try them on, they should be a firm, comfortable fit.
- ★ Do not walk around with your fins on!
- ★ Choose a mask which seals comfortably on your face. Large masks are for adults, small ones for children.
- ★ Please leave the snorkel on the mask.
- ★ Your sealed snorkel mouthpiece has never been used before. Once you have taken it out of the bag, **put the bag in the rubbish bin immediately** - in the water it is a hazard to marine life. Push the mouthpiece over both ridges on the end of the snorkel.
- ★ Floatation noodles & jackets are available in a range of sizes for anyone who wishes to use them. They can provide support in the water and allow you to rest more easily.
- ★ Take your equipment down the stairs to the submerged snorkelling platform and fit it there.
- ★ To prevent fogging and allow you to see clearly through the mask, spit on the inside of the glass, rub with your fingers, then rinse out.
- ★ To prevent the mask from leaking make sure there is no hair between your face and the mask, and your strap is placed high on the back of your head above your ears.
- ★ To use your snorkel, bite down gently on the tabs and close your lips around the outside of the mouthpiece to keep water out.
- ★ Relax, breathe deeply and slowly through your mouth.
- ★ If water leaks into your snorkel, remove the mouthpiece from your mouth, look up and drain.
- ★ If water leaks into your mask, lift your head up and drain the mask from the bottom.

### FOR YOUR OWN SAFETY

- ★ Listen to instructions given by the crew.
- ★ Eat only in moderation and do not consume alcohol before snorkelling or diving.
- ★ Always snorkel with someone else - use a one up, one down system.
- ★ Keep inside the boundaries of the snorkelling area which are marked by large orange buoys (see map overleaf). Snorkelling limits are explained by the crew.
- ★ If diving below the surface, always look up and reach up before coming up, there may be something above you.
- ★ If you are not a confident snorkeller, use the rope trails in the water, they are there to help you. Ask the ‘Snorkel Watcher’ if you need help.
- ★ Be aware of currents, swim into any current (use the ropes to help you). Look up often to check how far you have gone, you may have gone further than you think!
- ★ There will be a lookout on Reefworld, if experiencing difficulties, signal by waving your arms above your head.
- ★ If a vessel approaches you, raise an arm above your head to be easily seen.
- ★ Be aware of your own abilities and limitations. Be careful not to overexert yourself, remember that you have to swim back too! (Wear a flotation jacket if needed).
- ★ Small floating platforms are positioned in the snorkelling area, use them to rest on if needed. You can also rest by rolling onto your back.
- ★ One long blast on a whistle or on the boat’s siren is the signal to recall all snorkellers from the water immediately.
- ★ Important - coral cuts can quickly become infected. Treat any scratches or cuts at our first aid station at the bar once you have finished snorkelling.
- ★ Your Fantasea crew will do their utmost to ensure your safety during all of the day’s activities, however all swimming and snorkelling is undertaken at your own risk.

#### TAKE ONLY PHOTOS & MEMORIES LEAVE ONLY BUBBLES!

Fantasea Adventure Cruising does not condone Skin Diving or Breath Hold Diving in any way. Please find below a Safety Alert published by Workplace Health and Safety 2004.

*Workplaces conducting recreational snorkelling activities should provide the following advice to prospective snorkellers who intend to breath hold dive:*

- *The risk posed to breath hold divers of hypoxic blackout that may lead to unconsciousness, drowning, serious injury or death.*
- *This risk is increased significantly for breath hold divers who hyperventilate by taking repeated deep breaths before descending or who do deep dives. Consequently divers are strongly advised not to hyperventilate.*
- *Experienced breath hold divers are at particular risk in that they have the ability and technique to do long and deep dives.*
- *Breath hold divers should always dive in buddy pairs where one buddy remains on the surface and observes the other buddy whilst they are diving.*
- *Breath hold divers using weightbelts should be carefully weighted to ensure that they are neutrally buoyant whilst at the surface. The weightbelts should have a quick release mechanism and divers should be familiar with its operation.*

## Appendix 2 – Fantasea medical risk assessment guidelines

### Point to note

- Name of medical condition
- Are they currently taking any medication
- Is the condition stable
- When was their last fit/episode/attack
- Do they partake in regular exercise
- When was the last doctor check up
- Can they swim
- Have they previously snorkelled

**Any medical risk assessments that fall into the high risk category must be booked on a complimentary snorkel tour.** Any medications required are to be left at the tower prior to entering the water e.g. puffer, epipen, etc

### All medical conditions (low, medium or high) must be recommended to

- Wear a life jacket
- Snorkel with a buddy
- Wear a visible marker e.g. tape on snorkel
- Stay near the rope trails

### General medical conditions the would be considered HIGH RISK

- Heart disease
- Epilepsy
- Fits, faints and seizures
- Diabetes (diabetics who lose consciousness, experience fits or are insulin dependant)
- Recent head injury
- Lung disease / Emphysema
- High or low blood pressure not controlled by medication
- Uncontrolled Asthma

### Low, medium or high?

- As a **minimum** all guests reporting a medical condition assessed as being low, medium or high risk will be advised to wear a flotation devise, wear visible marking, remain close to the rope trails and to snorkel with a buddy.
- All guests who disclose a serious medical condition assessed as having a high risk will be asked to wear pink tape on their snorkel and restricted to the pink buoy area, thus restricting their level of exertion. Any guest who is high risk will be put on a complementary snorkel tour or accompanied in water by a rescue trained competent crew member. As with all snorkel tours, life rings must be used.
- Guests with a medical condition assessed as being a medium to low risk will be asked to wear a green tape on their snorkel to distinguish them to rescue crew, and will not be restricted.
- **Any** guest who has been refused a SCUBA dive due to a medical condition which may make diving unsafe yet still wishes to snorkel must be escorted to a snorkel supervisor where their medical condition will be assessed and documented on the Snorkel Risk Control Log'

**Appendix 3 – Fantasea risk assessment matrix**

<b>Environmental Conditions →</b>	<b>Minimal current Minimal Sea</b>	<b>Moderate current Calm sea</b>	<b>Strong current Calm sea</b>	<b>Minimal current Moderate sea</b>	<b>Moderate current Moderate sea</b>	<b>Strong current Moderate sea</b>	<b>Minimal current Heavy sea</b>	<b>Moderate current Heavy sea</b>	<b>Strong current Heavy sea</b>
<b>Medical Risk ↓</b>									
<b>LOW</b>	Green tape Buddy Rope trail Life jacket	Green tape Buddy Rope trail Life jacket	Green tape Buddy Rope trail Life jacket	Green tape Buddy Rope trail Life jacket	Green tape Buddy Rope trail Life jacket	Green tape Buddy Rope trail Life jacket	Green tape Buddy Rope trail Lifejacket	Green tape Buddy Rope trail Life jacket	Green tape buddy rope trail life jacket
<b>MEDIUM</b>	Green tape Buddy Rope trail Life jacket	Green/Pink tape Buddy Rope trail	Green/Pink tape Buddy Rope trail Life jacket	Green/Pink tape Buddy Rope trail Life jacket	Green/Pink tape Buddy Rope trail Life jacket	Green/Pink tape Buddy Rope trail Life jacket	Green/Pink tape Buddy Rope trail Life jacket	Pink tape Life jacket Rope trail Guided tour	Pink tape Life jacket Rope trail Guided tour
<b>HIGH</b>	Pink tape Life jacket Rope trail Guided tour	Pink tape Life jacket Rope trail Guided tour	Pink tape Life jacket Rope trail Guided tour	Pink tape Life jacket Rope trail Guided tour	Pink tape Life jacket Guided tour/ Do not snorkel	Pink tape Life jacket Guided tour/ Do not snorkel	Pink tape Life jacket Rope trail Guided tour	Pink tape Life jacket Guided tour/ Do not snorkel	Pink tape Life jacket Guided tour/ Do not snorkel

**The information given in this matrix is to be used as a guide. Individual cases should be considered as they may require different combinations of risk management options to be utilised.**

**Note:** Guided tour may be defined as:

- a) booking the guest onto a guided snorkel tour or;
- b) one-on-one attention via a crewmember with a life ring.

Appendix 4 – Fantasea snorkelling risk control log

FANTASEA ADVENTURE CRUISING - REEFWORLD SNORKEL RISK CONTROL LOGSHEET											DATE:		
Tides: e.g. 0937 – 1.32m 1521 – 2.21m		Wind: e.g. 15 – 20 knts		Conditions: e.g. Minimal Current with Moderate surface conditions. Current North to South and into Lagoon							Optimum time for snorkelling: e.g. Anytime during the day		
		Direction: e.g. SE											
Guest Name	Age	Sex	Medical condition reported & possible consequences of snorkelling	Risk level *	Action recommended						Supervisor's initials	Guests signature	
					Visible marker	Snorkel with buddy	Stay near ropes	Wear Lifejacket	Restricted area	Do not snorkel/ guided tour			
e.g. John Doe	35	M	Asthma – Ventalin in bag Triggers – Dust, flowers and colds/flu Last use – Spring last year , Reg X Can Swim/Snk Currently feeling good	M	✓ Green	✓	✓	✓	✓	--	--	⌘	☺
* Guests in a high risk category must be booked on a complimentary guided snorkelling safari or refused entry to the water. This should be noted in the Do Not Snorkel/Guided tour column e.g. DNS or FOC TOUR __:__											R/W manager initials:		