



FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign King at Adelaide in the State of South Australia, on the 30th day of January, the 24th, 27th, 28th 29th and 30th days of March, the 3rd, 4th, 5th, 11th, 12th, 13th, 14th and 19th days of April 2023 and the 23rd day of January 2024, by the Coroner's Court of the said State, constituted of Naomi Mary Kereru, Coroner, into the death of Ardebby Oh Chua.

The said Court finds that Ardebby Oh Chua aged 41 years, late of 45 E Rodriguez Sr Avenue, Quezon City, Philippines died at Tumby Bay Hospital and Health Services, Tumby Bay, South Australia on the 28th day of December 2017 as a result of salt water drowning. The said Court finds that the circumstances of her death were as follows:

1. Introduction

- 1.1. In December 2017, Ms Ardebby Oh Chua arrived in Australia from Manilla, Philippines, for a holiday and to visit her sister, Zsyivette Chua, who lived in Sydney.
- 1.2. Ms Chua, her sister Zsyivette, their brother Peatruvanni, and their parents travelled to South Australia and visited Kangaroo Island. From there they went to Port Lincoln and booked a tour called 'Swimming with the Sea Lions', through a company by the name of Adventure Bay Charters. At the time, this company was owned and operated by Mr Matthew Waller, an experienced fisherman.
- 1.3. On 28 December 2017, Ms Chua and her brother and sister arrived at the Marina in Port Lincoln at approximately 7:30am for an 8am departure on a charter boat called the 'Adventure Lady'.

- 1.4. The Adventure Lady, with four crew members and 19 passengers, travelled from the Port Lincoln Marina to Blyth Island. The trip took approximately 90 minutes and was 40 kilometres northeast of Port Lincoln. The Adventure Lady moored on the southern side of Blyth Island, located in the Sir Joseph Banks group of islands, to snorkel in waters between 1.2 and 3 metres deep.
- 1.5. Ms Chua was wearing a full-length wetsuit, diving mask and snorkel. She was provided a red foam pool 'noodle' flotation device (the red noodle) by the crew as she had informed them that she had not snorkelled before.
- 1.6. Approximately 40 minutes into the activity, Mr Waller observed a red noodle floating in the sea approximately 15-20 metres from the rock where participants were instructed to gather from time to time during the swim (the muster rock). A short time later he saw Ms Chua floating motionless, face down, in the water.
- 1.7. Ms Chua was swum back to the muster rock by two crew members where resuscitation efforts were commenced in approximately 40-50 centimetres of water, with four participants of the tour supporting Ms Chua in an attempt to provide a solid surface for compressions.
- 1.8. At one point, Ms Chua was observed to cough and vomit water and bile. Her eyes were observed to open or flicker momentarily. Resuscitation efforts continued for a period of approximately 10 to 15 minutes and a decision was made that Ms Chua's best chance for survival depended on her resuscitation being continued on the boat.
- 1.9. Ms Chua was swum back to the Adventure Lady with assistance from both crew and passengers. Once on board, cardiopulmonary resuscitation (CPR) was continued on the marlin board at the back of the boat.
- 1.10. The Captain of the Adventure Lady directed the boat to the nearest township, being Tumby Bay, approximately an hour away from Blyth Island. Emergency Services had been contacted and were waiting at the Tumby Bay Marina when the Adventure Lady arrived. CPR continued until the boat moored at Tumby Bay. Paramedics took over the resuscitation efforts at that time. Unfortunately, Ms Chua could not be revived and was pronounced life extinct at 1230 hours on 28 December 2017. This was a tragic end to what should have been an experience of a lifetime.

2. Reason for Inquest

- 2.1. This Inquest focused on the Swimming with the Sea Lions tour conducted by Adventure Bay Charters that took place on 28 December 2017 and the events leading up to Ms Chua's death whilst participating in the tour.
- 2.2. The State Coroner determined that an Inquest into Ms Chua's death was '*necessary or desirable*'¹ to explore the following issues:
- Ms Chua's cause of death;
 - The mechanism of Ms Chua's death;
 - Whether Adventure Bay Charters had adequate risk management procedures in place to mitigate the risks of snorkelling and swimming in the sea;
 - Whether there were adequate safety measures (including flotation devices) once Ms Chua was in the water;
 - Whether there was adequate supervision of Ms Chua and others who had been identified as being inexperienced swimmers once they were in the water;
 - Whether there was an adequate emergency plan in place once Ms Chua was found unresponsive in the water;
 - Whether there was adequate first aid equipment on the Adventure Lady; and
 - Whether Ms Chua's death could have been prevented.

3. Evidence at Inquest

- 3.1. The Inquest was heard over 13 sitting days in addition to a view to Blyth Island, which was conducted on board the Adventure Lady.²
- 3.2. The documentary evidence at this Inquest comprised 106 exhibits.
- 3.3. At Inquest, oral evidence was heard from:
- William Leigh Ledger
 - Catherine Theresa Marie Ledger
 - Mark Andrew Heading

¹ Section 21 of the Coroners Act 2003 South Australia

² Now owned and operated by a different company

- David Sidney Wilkins
- Matthew Waller
- Elise Nicole Lavers
- Thanh Nghiep Nguyen
- Sam Hamood-Smith
- Miriam Sylvia Scherer
- Silvana Natalina Nesci
- Nicola Anthony Nesci
- Professor Anne-Maree Kelly
- Dr John Duncan Gilbert
- Robert Michael Brownridge
- Carl John Charter
- Dr John Maxwell Lippmann

3.4. In writing this Finding, I do not purport to summarise all the evidence tendered or heard at the Inquest but refer to it only in such detail as appears warranted by its forensic significance. It should not be inferred from the absence of reference to any aspect of the evidence, that it has not been considered.

4. Hindsight bias

4.1. I warn myself concerning a vital consideration in the assessment of the evidence and any potential criticisms of witnesses in this Inquest, namely hindsight bias.

4.2. A description of '*hindsight bias*' is given in the Australasian Coroners Manual, namely as:

'The tendency after the event to assume that events are more predictable or foreseeable than they really were. What is clear in hindsight is rarely as clear before the fact. If it were, there would be far fewer mistakes made. It is an obvious point, but one that nonetheless bears repeating, particularly when Coroners are considering assigning blame or making adverse comments that might damage a person's reputation...

Hindsight, of course, is a very useful tool for learning lessons from an unfortunate event. It is not useful for understanding how the involved people comprehended the situation as it developed. The distinction needs to be understood and rigorously applied.'³

³ The Australasian Coroners Manual, page 10

4.3. As stated, I am very mindful of this warning when considering evidence of the operations of Adventure Bay Charters and the emergency retrieval and resuscitation efforts of Ms Chua.

5. **Cause of death**

5.1. Following Ms Chua's death, a post mortem examination was conducted on 4 January 2018 by Dr John Gilbert, a forensic pathologist at Forensic Science South Australia (FSSA). Dr Gilbert prepared a post mortem report dated 23 January 2019 which was tendered to the Court.⁴

5.2. Dr Gilbert cited Ms Chua's cause of death as:

‘Salt water drowning’

5.3. For reasons detailed below, I have accepted Dr Gilbert's cause of death.

5.4. There was a suggestion during the Inquest by Mr Ian Maitland, counsel representing Mr Waller, that Ms Chua may have succumbed to a condition known as ‘*immersion pulmonary oedema*’ (IPO).

5.5. This condition was explained during the Inquest as a life-threatening condition that occurs when fluid from the blood leaks abnormally from the small vessels of the lung into the airspaces.⁵ It is a condition that is associated with significant exertion in the water and pressure in the lungs (principally associated with scuba diving) with symptoms of severe respiratory distress developing over a period of 30 minutes or so.⁶

5.6. Expert evidence was heard from Professor Anne-Maree Kelly,⁷ Dr John Gilbert⁸ and Dr John Lippmann⁹ on this topic. All expert witnesses agreed that this was highly unlikely due to the circumstances leading up to Ms Chua being found unresponsive, which did not fit with the usual pattern of characteristic IPO symptoms. Dr Gilbert informed the Court that, pathologically, IPO was indistinguishable from drowning, however he indicated he would have no hesitation in accepting the opinion of Dr Lippmann on the topic.

⁴ Exhibit C2a

⁵ Dr Lippmann's evidence – and literature

⁶ Transcript, page 774

⁷ Transcript, page 776

⁸ Transcript, pages 818-819

⁹ Transcript, page 982

- 5.7. Based on the overwhelming expert evidence, and the fact that the submission was not pursued beyond the expert evidence being heard, I am satisfied that IPO played no role in the death of Ms Chua. Accordingly, I will exclude IPO as being a relevant issue in this Inquest.
- 5.8. Returning to the cause of death, Dr Gilbert gave evidence that, in addition to the circumstances leading up to Ms Chua's death, there were a number of pathological findings which, while not specific, were consistent with salt water drowning. Those were as follows:
- Her larynx contained a small amount of red, slight frothy fluid;
 - Her pleural cavities each contained approximately 100ml of red watery serous fluid;
 - Her lungs were mildly hyperinflated but absent of inflammatory changes that might suggest an acute asthma attack (such as mucous plugging of the airways); and
 - The presence of elevated levels of sodium and chloride in the biochemistry taken from her vitreous humour.¹⁰ This was taking into account the seven-day interval between death and autopsy where the levels of both sodium and chloride are expected to fall to normal in the post mortem redistribution process.¹¹
- 5.9. While Dr Gilbert found moderate coronary artery disease in Ms Chua's left anterior descending artery and her left circumflex artery, he opined that this level of occlusion would not have produced symptoms or posed a threat to her life.¹² There was also no evidence of recent damage (ischaemia) or reduced blood flow to the heart.¹³
- 5.10. Dr Gilbert also found evidence of a very mild focal myocarditis¹⁴ which he told the Court would be most unusual to have caused sudden death by way of cardiac arrhythmia, although he could not rule it out entirely.¹⁵
- 5.11. Finally, Ms Chua's glucose levels were mild to moderate which indicated a level of hyperglycaemia, but not of a sufficient level to have directly caused her death. This

¹⁰ A clear substance located between the lens and retina of the eye

¹¹ Transcript, page 814

¹² Transcript, page 804

¹³ Transcript, page 808

¹⁴ An inflammation of the heart muscle

¹⁵ Transcript page 811

was consistent with the history of mild diabetes that was provided by Ms Chua's family after her death. Ms Chua had not been prescribed medication for this condition.

- 5.12. Dr Lippmann (whose considerable expertise will be detailed later in this Finding) was asked to comment briefly on Dr Gilbert's cause of death in his oral evidence. He opined that the clinical history was consistent with drowning.
- 5.13. Taking into account all pathological and biochemical findings detailed in the post mortem report, in addition to the oral evidence of Dr Gilbert, I am satisfied that Ms Chua died as a result of salt water drowning and so find.
- 5.14. Laryngospasm
- 5.15. The mechanism of Ms Chua's drowning was important to understand as there were no eyewitness accounts of her having difficulty in the water. Ms Chua was also seen swimming only a matter of minutes before being found unresponsive.
- 5.16. Dr Lippmann expressed the opinion that the mechanism of drowning was '*aspiration of water through Ms Chua's snorkel triggering laryngospasm, unconsciousness and drowning*'.¹⁶ Laryngospasm was defined by Professor Kelly as:

'The larynx sits right behind your Adam's apple in your neck, and it's a series of muscles. They help you to talk but they also will close off the airway to protect it, and it's thought that spasm of those muscles in response to water is the main initial problem and that that can't be overcome just by you trying to undo it. It's a bodily reflex that can't be undone, and that results in inability to breathe but also inability to speak or call out, and obviously the oxygen level in the body decreases because you're not getting any more oxygen, and the more you panic the faster the rate of that decrease in oxygen because your metabolism increases. Eventually the low oxygen level can result in loss of consciousness, but it's after a period of time. Eventually the laryngospasm does subside but after the level of oxygen gets low enough that the muscles basically just give up. At which stage water enters the lungs. It fills the lungs so that air can't get in to be absorbed, but also causes inflammation and damage to the lungs.'¹⁷

Professor Kelly estimated that the period of time between the event of aspirating water to unconsciousness in such a scenario, was likely to be '*between thirty seconds to a minute, maybe a bit more*'.¹⁸ Professor Kelly opined that the mechanism of

¹⁶ Exhibit C33, page 10

¹⁷ Transcript, page 754

¹⁸ Transcript, page 769

laryngospasm was a '*perfectly plausible scenario*'.¹⁹ Dr Lippmann described a laryngospasm leading to drowning as '*quick and silent*'.²⁰

- 5.17. Dr Gilbert was asked if he agreed with Dr Lippmann's opinion. He highlighted the absence of any pathological finding at autopsy as the event of a laryngospasm was transient, with the vocal cords relaxing after a short period and subsequently appearing normal at autopsy. Dr Gilbert agreed however, that after having ruled out other possibilities, this was the most probable mechanism of death.²¹
- 5.18. I accept the evidence of Dr Lippmann and Dr Gilbert and find that the mechanism of Ms Chua's drowning was aspiration of salt water resulting in laryngospasm.

6. The snorkelling equipment

- 6.1. As part of the coronial investigation, the same make and type of snorkelling equipment worn by Ms Chua on 28 December 2017 was tested by Brevet Sergeant Robert Brownridge of the South Australia Police, Water Operations Unit.²² Brevet Sergeant Brownridge has been an accredited Diving Supervisor under the Australian Diver Accreditation Scheme (ADAS) since 1995. He has been involved in numerous underwater search and recovery operations, including the recovery of deceased persons in both fresh and salt water, and the examination of diving equipment relative to diving fatalities. Brevet Sergeant Brownridge provided an affidavit which was tendered to the Court.²³ The purpose of testing equipment similar to that worn by Ms Chua was for the provision of an opinion as to its suitability for use by a person with limited swimming and snorkelling ability. In particular, a crucial issue was whether Ms Chua's wetsuit would have provided a positive level of buoyancy to her whilst in the water both with and without the assistance of the red noodle.
- 6.2. The tests undertaken by Brevet Sergeant Brownridge revealed that the mask and snorkel were in good working order. The snorkel had a one-way purge valve which was designed to make clearing water from the snorkel easier.²⁴ The tests undertaken in relation to the 4 mm thick Cressi brand wetsuit and red foam 1460 mm long pool noodle

¹⁹ Transcript, page 768

²⁰ Transcript, page 988

²¹ Transcript, page 820

²² The wetsuit worn by Ms Chua on the day of the incident was cut and removed during resuscitation efforts and discarded shortly thereafter (Exhibit C17u, paragraph 4)

²³ Exhibit C16

²⁴ Exhibit C16, paragraph 8

(the red noodle) saw both items individually submerged completely under water. Brevet Sergeant Brownridge then weighed the displaced water and subtracted the weight from the item's actual weight. He explained that this test proved the upward force (lift) each item would provide in the water. The tests revealed that the wetsuit provided an upward force of 6.273 kilograms and the pool noodle provided an upward force of 5.095 kilograms. The combined lift was therefore 11.368 kilograms. Brevet Sergeant Brownridge opined that a snorkeller using this equipment, would find themselves so positively buoyant that they would require considerable effort to submerge and remain submerged in the water.²⁵

- 6.3. Brevet Sergeant Brownridge's opinion was that, even without the additional buoyancy of the red noodle, a snorkeller wearing a wetsuit of this type would still remain positively buoyant in the water provided no other external weight was added. As he said:

'It is my opinion that the equipment provided to me by Detective Brevet Sergeant Heading appeared adequate enough to provide the required buoyancy for a novice snorkeler with limited swimming ability to remain afloat. All the equipment appeared in good working condition. However, in my opinion, it is essential that inexperienced, nervous or vulnerable persons are closely supervised at all times while engaging in water related activities. Such close supervision ultimately provides the capacity for appropriate prompt action should it be required at any time for whatever reason.'²⁶

I accept the evidence of Brevet Sergeant Brownridge and find that Ms Chua's snorkelling equipment was in good working order. I also accept that the 4mm Cressi wetsuit used with or without the pool noodle would have provided Ms Chua with a level of positive buoyancy when she was in the water. This is an objective finding that required balancing against the accounts of some of the tour participants who did not feel that the wetsuits alone were sufficient in providing them with buoyancy in the water. It cannot be known whether Ms Chua felt buoyant during her swim. Evidence was heard that Ms Chua appeared uncomfortable when she entered the water²⁷ and had difficulties with water entering her snorkel and mask throughout the swim.²⁸ I will deal with these topics in more detail below. However, the tests undertaken by Brevet Sergeant Brownridge were supportive of a finding that Ms Chua would have

²⁵ Exhibit C16, paragraphs 10, 11; Appendix A for calculations

²⁶ Exhibit C16, paragraphs 13, 14

²⁷ Transcript, pages 695-696

²⁸ Transcript, page 340 (Waller), page 590 (Hamood-Smith)

experienced a degree of positive buoyancy in the water prior to being found unresponsive.

- 6.4. It is important to highlight that, notwithstanding Brevet Sergeant Brownridge's findings relating to positive buoyancy of the equipment similar to that used by Ms Chua, he was of the opinion that close supervision of inexperienced, nervous or vulnerable persons whilst in the water was *essential*.²⁹ This had relevance to Ms Chua in relation to her inexperience and potential nervousness. This Court heard evidence that panic is a risk that must be guarded against at all times during the activity of snorkelling, particularly in the case of a novice snorkeller.³⁰ I agree with Brevet Sergeant Brownridge's comments. In addition to the topic of supervision, a number of other factors were examined during the course of the Inquest as having potentially impacted on Ms Chua's death. I will detail these below in the Finding.

7. Adventure Bay Charters

- 7.1. Mr Matthew Waller was the owner/operator of Adventure Bay Charters from April 2007 to 2021. He was also the Captain of the Adventure Lady vessel (the main vessel of the company) on the day of Ms Chua's death, as well as the lead tour guide. An affidavit provided to police on 28 December 2017 was tendered to the Court.³¹ In addition, Mr Waller gave oral evidence over a two-day period during the Inquest.
- 7.2. Adventure Bay Charters was formed by Mr Waller in April 2007. Initially, the focus of the business was to promote the tuna industry, offering '*Swimming with the Tuna*' tours. Mr Waller was initially responsible for running and marketing the business as well as driving the boat. In 2008, '*Swimming with the Sea Lions*' was added as an additional tour. '*Cage diving with Great White Sharks*' was then added as a tour. More staff were employed, and Mr Waller ultimately became the General Manager of the company. Mr Waller told the Court that, notwithstanding the growth in his business, he maintained his role as the master of the vessel and would run some of the tours as the main guide.
- 7.3. It was apparent from Mr Waller's evidence that he was a highly experienced mariner. Mr Waller gave evidence that both his father and grandfather were fisherman and he too worked in the tuna and rock lobster fishing areas in both Port Lincoln and in

²⁹ Emphasis added

³⁰ Transcript, p884-885

³¹ Exhibit C23a, sworn on 19 February 2018

Western Australia, early in his career. In terms of qualifications, Mr Waller began working on boats as a deckhand, then a coxswain, to achieving a marine diver's certificate and then a Master 5 certificate in 1995. As at December 2017, Mr Waller was qualified as a Master of a fishing vessel less than 35 metres in length for Australian Coastal and Middle Water (ACMA) operations out to 600 nautical miles and a Master of a fishing vessel less than 80 metres in length for offshore operations out to 200 nautical miles.³²

- 7.4. Mr Waller explained that Adventure Bay Charters were the first operators in Port Lincoln to conduct a Swimming with the Sea Lions tour. Originally, the tours travelled solely to Hopkins Island, approximately an hour and a half South of Port Lincoln, at the bottom of the Spencer Gulf.³³ However, occasional inclement weather producing unsafe conditions caused him to look for other islands within the same distance from Port Lincoln as a secondary option to provide the tours more regularly. Mr Waller thereafter discovered Langton Island and Blyth Island. As he explained in his oral evidence:

‘In that process we identified the best secondary location to our operations would be Blyth Island given its sheltered nature, the activity of sea lions and their propensity to engage with people but also because it was a particularly pretty island and it was unique and of all the islands in the Sir Joseph Banks Group it's the only one that's made entirely of sand and it gives a very tropical feel when you approach it and, generally in my experience, if you can give people a positive vibe you're going to give them a better customer experience and a better day'.³⁴

An application to the Department of Water and Environment was then submitted for a permit to operate in the area surrounding Blyth Island (as had been obtained for other islands). The relevance of the permit was that the area where the Adventure Lady was moored on the day of Ms Chua's death was outside the permitted area. This became the subject of some evidence which I will detail later in the Finding.

7.5. Risk management procedures

- 7.6. Following Ms Chua's death, Detective Mark Heading, in his capacity as a coronial investigator, took a detailed statement from Mr Waller (and other crew and participants on the tour) who provided documentation held by Adventure Bay Charters, as well as

³² Exhibit C23a, Annexure A; Transcript page 286

³³ Transcript, page 287

³⁴ Transcript, page 288

the snorkelling equipment and the wet suit similar to that worn by Ms Chua on the day.³⁵ The documentation included Mr Waller's Certificate of Competency as Skipper of the Adventure Lady, the Safety Management System Document (for a Class 1 Operation), the Manifest of participants on 28 December 2017, the Adventure Lady Sea Lion Tour Procedure, a marked Google map of the area highlighting a number of key landmarks relevant to the incident, the vessels activity log from the day, and finally a picture of the coordinates of the boat mooring on the day of the incident.³⁶

- 7.7. I pause here to acknowledge Mr Waller's cooperation and assistance with both the coronial investigation and the Inquest, including his participation in the view. In addition to the documents and equipment detailed above, Mr Waller provided his detailed Incident Report that he had prepared on the day of Ms Chua's death, as well as photographs that had been taken during the tour by his crew members. It was plain from his oral evidence that Mr Waller was proud of the thriving business he had founded which had created job opportunities for young staff. It was also clear that he held the view that his policies and procedures, in particular those relating to risk management, were adequate. Unfortunately, that belief was not supported by the evidence.
- 7.8. Mr Waller was keen to highlight that in the 10 years of operation prior to Ms Chua's death, there had never been a drowning or near drowning on one of his tours.³⁷ However, the event of a drowning incident is a foreseeable and ever-present risk simply by virtue of the nature of the activity, being in open waters. This risk was invariably heightened with the participation of low-ability swimmers in the tour. It was therefore important to have adequate risk management procedures in place.
- 7.9. The Safety Management System Document (Safety Document), the inception of which was mandated by the Australian Maritime Safety Authority (AMSA) and updated in accordance with Adventure Bay Charters company policy,³⁸ did address the topic of '*Emergency Preparedness*'. It stated:

'Emergency plans have been established in accordance with the National Standard for Commercial Vessels (NSCV) part E. The primary objective of these plans is to provide timely, appropriate and coordinated response to identified emergencies and assist with

³⁵ Transcript, page 147

³⁶ Exhibit C23a sworn 19 February 2018

³⁷ Transcript, pages 381, 465

³⁸ Transcript page, 305

their effective management. It includes the identification and management of any foreseeable risks associated with these emergency situations.

The owner/master is to ensure, and the designated person is to monitor, that:

- Crew understand the primary objective of the emergency plans.
- Crew know their designated roles and responsibilities detailed in the emergency plans.
- Crew demonstrate proficiency in fulfilling their designated roles and responsibilities through practical application during emergency drills. The emergency plan for a fire on board is detailed in Appendix D. The master conducts monthly drills to test the effectiveness of the crew's response to emergencies and uses any lessons learnt to inform crew training and development. The details of these drills are recorded in the vessel log.³⁹

7.10. Later in the Safety Document was another section titled '*Emergency Preparedness and Vessel Drills Manual*'. This section was created on 1 December 2010 and updated twice, once on 16 September 2011 and the second time in the months leading up to Ms Chua's death, namely 19 September 2017. On the following page the contents of this Manual was as follows:

'CONTENTS:

1. Document title page
2. Contents
3. Fire
4. Person overboard
5. ***Personal injury or other medical emergency***⁴⁰
6. Vessel collision
7. Vessel grounding
8. Vessel flooding
9. Adverse weather or water conditions
10. Oil spills
11. Life raft use
12. Emergency radio use'

7.11. Section 5 '*Personal injury or other medical emergency*', was relevant for Ms Chua. The corresponding drill for this section, to be carried out every two months for this event, was:

- Master to sound the alarm to crew '*Medical Emergency*'.
- Crew to remove first aid kit from under helm seat storage if required.⁴¹

³⁹ Exhibit C23a, Annexure B

⁴⁰ Emphasis added

⁴¹ Exhibit C23a, Annexure B

- 7.12. As will be detailed later in the Finding, I found this drill to be wholly inadequate in the event of a drowning emergency, particularly in comparison to the comprehensive drills set out for the event of a fire on board or a person overboard. In short, the drill was absent any information on how to manage an unresponsive person in the water (in water rescue) where resuscitation was required.
- 7.13. It was therefore unsurprising that when Ms Chua was found unresponsive in the water, the crew were unable to implement an effective coordinated response. Rather, they deferred to some of the tour participants to direct the emergency efforts, which was an unsatisfactory procedure. This saw attempts to resuscitate Ms Chua take place on an unstable surface for a period of between 10-15 minutes⁴² before she was retrieved to the vessel. It is important to highlight that I make no criticism whatsoever of the participants who took control of the first aid response. I agree with Ms Emma Roper of Counsel Assisting that their efforts could only be described as valiant. However, based on my assessment of Mr Waller's high level of confidence and experience on the water, I am satisfied that had there been an adequate plan in place, similar to that set out by Australian and New Zealand Resuscitation Council Guidelines (ANZCOR),⁴³ and practised during the two monthly drills, Mr Waller would have taken charge of the emergency response, which may have resulted in a better outcome for Ms Chua. This was a sentiment expressed by Professor Kelly and Dr Lippmann in their expert evidence, as well as two of the tour participants, who incidentally were health care professionals.⁴⁴
- 7.14. The permit zone and the view
- 7.15. As detailed above, once identifying Blyth Island as an appropriate location for his Swimming with the Sea Lions tour, Mr Waller applied for a permit from the Department of Environment, Water and Natural Resources (DEWNR). This was required as Blyth Island (and the other islands to which Adventure Bay Charters toured) were identified as national park areas. The permit was granted by the Minister for Sustainability, Environment and Conservation and stipulated regulations relevant to interactions with marine wildlife (such as sea lions) and defined zones of operation for the permit holder to conduct their business during the tours. Evidence was heard and

⁴² The length of time resuscitation efforts continued on the muster rock differed amongst witnesses between 5 minutes and 30 minutes – Transcript pages 67, 109; Exhibit C11, page 11

⁴³ Exhibit C32b, ANZCOR Guideline 9.3.2 – Resuscitation in drowning, November 2021

⁴⁴ Transcript, page 66 (Prof Ledger); Transcript, page 109 (Mrs Ledger)

received from Mr David Wilkins, a Senior Investigations and Compliance Officer with DEWNR, about the permit that was granted for Blyth Island to Mr Waller's company.⁴⁵

- 7.16. Mr Wilkins annexed a map of Blyth Island to his affidavit⁴⁶ which identified the permitted zones of operation for the Adventure Lady. This map was also attached to the permit provided to Adventure Bay Charters. Mr Wilkins explained that the yellow line drawn on the map defined the area of operations for swimmers and tenders, being no closer than 30 metres to the Island. The red line defined the area for the main vessel used during the tour, being no closer than 50 metres to the island.⁴⁷ Mr Wilkins gave evidence that the areas between the two coloured lines set the parameter for the tour, being between the eastern and western perimeter of the Island. During the course of his evidence, Mr Wilkins illustrated the boundaries of the permit zone on this particular map.⁴⁸
- 7.17. Mr Wilkins, who accompanied Detective Heading for a site visit on 13 February 2018, formed the view that based on the site of mooring on 28 December 2017, the operators of Adventure Bay Charters were conducting activities outside the authorised area of operations.



⁴⁵ Exhibit C24
⁴⁶ Exhibit C24, Annexure B
⁴⁷ Exhibit C24, page 2
⁴⁸ Exhibit C23

- 7.18. Mr Waller's chosen spot to anchor the vessel was to the eastern side of Blyth Island, represented on the map with a red dot. The red dot above it, circled in blue, represented the muster rock. Mr Waller explained in his evidence that the first mooring site he considered was his preference, describing it as '*...the large sand hole [which is] the most attractive site to dive and snorkel in*'.⁴⁹ However, his evidence was that he most likely chose the second preferred site to anchor the vessel (the 'mooring site') due to observing tide ripples over the sand bar near the sand hole (the preferred site). The decision was made at the last minute for safety reasons, as he was aware at the time of approaching Blyth Island that there were at least eight of the 19 participants who were low-ability swimmers.
- 7.19. Three issues arose on this topic of evidence; whether the chosen site to moor was outside the permit zone, whether Mr Waller was aware that his chosen site to moor the boat on this particular day was in contravention of the permit, and whether the permitted area provided a safer mooring site for the tour generally, thereby potentially reducing the risk to the tour participants and Ms Chua in particular.
- 7.20. The Court conducted a view of Blyth Island on the first day of the Inquest. This was undertaken on the same vessel as captained by Mr Waller on 28 December 2017, but was under new ownership. Of particular interest to the Court was the zone at which Mr Waller had preferred to anchor the boat, the site within the permit zone. This was the first viewpoint conducted with the coordinates being 34.34.1597 south and 136.17.629 east on the southern side of the Island.⁵⁰ A photograph taken on the view by the investigating officer of the depth sounder revealed that the depth of the water was 2.9 metres.⁵¹ The vessel was estimated to be between 120 and 150 metres from the Island. It was noted on the day of the view that this mooring site had a tidal current. This was a common occurrence for this site due to its closer proximity to the beach.⁵² This was consistent with Mr Waller's observations of this site on the day, and the reason he chose to moor at a different site.
- 7.21. The next site that was visited on the view was the actual mooring site on the day of the incident as seen in the arial map from Mr Wilkins, with a red dot to the eastern side of the island underneath the marked muster rock. The investigating officer took a

⁴⁹ Transcript, pages 333, 367

⁵⁰ Transcript, page 33

⁵¹ Exhibit C17r, photograph 2

⁵² Transcript, page 33

photograph of the depth sounder which reflected the coordinates as 34.34.170 south and 136.17.6 east. The depth was recorded as 4 metres.⁵³

- 7.22. I acknowledge that the depth of the two sites on the day of the view were dependent upon variables in the tide. The tide was inevitably different on the day of the incident, thereby affecting the depth of the two sites. What can be safely concluded however, is that while the preferred site was a shallower site than the actual mooring site, both were sufficiently deep that participants would have been out of their depth immediately upon leaving the boat.
- 7.23. In respect of the first issue, it is plain that the preferred site contemplated by Mr Waller was within the permit zone, at the eastern extremity of the red line where the red dot was placed. Mr Waller gave evidence that his understanding of where he actually moored on the day was also within the permit zone, with anything outside the 50-metre perimeter around the entire Island being permitted.

‘The licence for Blyth Island says that you can't go inside those lines and my interpretation of that is our pre-existing mooring site was outside those lines, so therefore anywhere outside those lines out to 200 nautical miles is within our permit zone, as long as we then don't breach the marine mammal regulations of approaching a sea lion, within more than 50m of a vessel or 30 m as a swimmer.’⁵⁴

- 7.24. Mr Wilkins described a risk assessment that DEWNR had undertaken for the purpose of considering the permit. He stated that DEWNR determined that 360-degree access to the Island was not appropriate due to a requirement to allow opportunity for the sea lion population to remain undisturbed outside the permit zone.⁵⁵ This appeared to be the point of confusion between Mr Wilkins and Mr Waller. I am satisfied that the mooring site on 28 December 2017 was outside the permitted area, but Mr Waller was genuinely unaware of this at the time.
- 7.25. The final issue was whether the preferred site was a safer area for the tour. Detective Heading attended both locations in company with Mr Wilkins on 13 February 2018. He observed that the preferred area comprised of a predominantly clear sandy bottom with better visibility conditions than the area chosen by Mr Waller. Mr Wilkins agreed with this when he gave evidence.⁵⁶ Further, Detective Heading expressed the view in

⁵³ Exhibit C17r, photograph 4

⁵⁴ Transcript, page 296

⁵⁵ Exhibit C24a, page 2

⁵⁶ Transcript, page 268

his report that the preferred site provided far greater ability for a properly trained lookout to monitor the group. He also noted that the water within the permit zone was shallower than in Mr Waller's chosen area, and the participants would have been able to stand on the bottom of the sea floor with greater ease than the swim area chosen.⁵⁷

- 7.26. After attending the site and viewing the two locations, I accept that Detective Heading's comments had some force. However, while the mooring site was 1.1 metres deeper (on the day of the view) than the preferred site considered by Mr Waller, both sites (which were remarkably close to one another) were too deep for the participants to stand in when entering the water. The participants would have entered the water from the back of the boat which was beyond their depth at both sites. Further, and perhaps more importantly, the tidal conditions on the day were such that the benefit of the preferred site was outweighed by the risk to the participants, and in particular the low-ability swimmers.
- 7.27. While I have found that Mr Waller's mooring location was outside the permit zone, I am satisfied that based on his observations of the tidal ripples, this was a more appropriate place to moor the boat from a safety perspective and so find. Accordingly, the contravention of the permit zone had no bearing on the matters concerning the cause and circumstances of Ms Chua's death.

8. Circumstances leading up to death

- 8.1. As touched on above, on the day of Ms Chua's death, the tour was conducted by Mr Waller, as Captain of the Adventure Lady and the lead tour guide. His rostered crew for that morning was Mr Sam Hamood-Smith, a deck hand, and Ms Elise Lavers, the coxswain. Both were experienced crew members. Mr Hamood-Smith and Mr Waller had conducted tours to Blyth Island on previous occasions. Ms Lavers had not. Mr Waller, Mr Hamood-Smith and Ms Lavers each provided statements to coronial investigators after the incident, and each gave oral evidence at the Inquest.
- 8.2. The fourth member of the crew was Mr Thanh Nguyen who was not rostered for the tour but happened to be at the office that morning. He was asked by Mr Waller to accompany them. It was Mr Nguyen's first day of paid work with the company. Prior to that he had been undertaking work experience for a period of approximately two

⁵⁷ Transcript, page 198; Exhibit C17, pages 51-52

weeks. Mr Waller had not assessed Mr Nguyen's ability to swim or snorkel before the day of the incident.⁵⁸

- 8.3. Mr Waller explained that on 28 December 2017, he observed from the weather reports that Blyth Island had a forecast of southerly winds of approximately 10 knots, to increase to 13 knots in the afternoon until about 4pm.⁵⁹ He stated that there was a cross shore wind but with a neap tide and nearing its ebb at the time the tour was scheduled to take place.⁶⁰ This combination made the location of Blyth Island ideal for the morning tour. A neap tide sees minimal change in tidal activity, resulting in no appreciable change in high or low tide.⁶¹ There was no challenge to Mr Waller's evidence on this topic, with many of the tour participants and crew describing the weather as fine and calm.
- 8.4. The Manifest document (the manifest) revealed that in addition to the crew, there were 19 paid participants, all of whom attended for the tour on the morning.⁶² This comprised the Chua family of three, Ms Scherer and her partner Mr Wingrave, the Nesci family of four, the Ledger family of six, a couple travelling from Korea and Ms Bracegirdle and her daughter Emily. The manifest set out the names of the participants, the amounts they had paid and where they had heard about Adventure Bay Charters. There was also a column titled '*Special Requirements*', which the Court heard was for participants to enter details about a special occasion such as a birthday.⁶³ There was no designated area to list pre-existing medical conditions or to enter the level of the participant's swimming and snorkelling ability.
- 8.5. The tour was scheduled to commence at 8am and left the Port Lincoln Marina at that time. The participants were provided with full-length wet suits, fins and a diving mask and snorkel. There was no controversy about the evidence of the boat ride to Blyth Island. All witnesses described a safety briefing by Mr Waller given just before leaving the Marina. This was in relation to the event of an emergency on board the ship. It did not raise the topic of swimming and snorkelling activities. Some witnesses recalled that it was during this briefing that Mr Waller asked for those with pre-existing medical

⁵⁸ Transcript, page 395

⁵⁹ Exhibit C17a 'Port Lincoln Tide Times', Willy Weather, 28 December 2017

⁶⁰ Exhibit C23a, paragraph 9

⁶¹ Transcript, page 223

⁶² Exhibit C23a, Annexure C

⁶³ Transcript, page 386

conditions to identify themselves (and their conditions) to the crew.⁶⁴ During the 90-minute boat ride the evidence revealed that the passengers were provided with light refreshments and that the crew members spoke to the different groups to establish their level of swimming and snorkelling ability. This was referred to by the crew as the ‘*pre-dive interview*’. Mr Waller gave evidence that this was the first occasion that the staff were aware of the individual swimming and snorkelling abilities of the participants.⁶⁵

- 8.6. Mr Nguyen was asked by Mr Waller to speak to the Chua family. Ms Chua, her sister and brother were present during this conversation. Ms Chua’s sister provided a statement which was tendered.⁶⁶ The evidence of Ms Chua’s sister was that while Ms Chua and her siblings participated in swimming lessons as children, she was not aware of Ms Chua having any prior snorkelling experience.⁶⁷ Mr Nguyen’s evidence was slightly different. He recalled that the family had snorkelled a long time ago but were not confident swimmers.⁶⁸ Mr Nguyen’s oral evidence was consistent with his written account.⁶⁹ Mr Hamood-Smith, who was present for at least some of the pre-dive interview with the Chua family to instruct Mr Nguyen how it should be undertaken, recalled that Ms Chua had swum before but had never snorkelled.⁷⁰
- 8.7. Mr Waller’s oral evidence was that when he spoke with Mr Nguyen about Ms Chua, he was left with the impression that she had not snorkelled before. He said his impression was later confirmed when he saw Ms Chua place the snorkel mask on incorrectly.⁷¹ Despite Mr Nguyen’s slightly different account, he formed the impression Ms Chua and her siblings were not confident swimmers and thought they would require ‘*floaties*’ or a red noodle once in the water.⁷² It is clear that he passed this information onto both Mr Waller and Mr Hamood-Smith. Taking the evidence on this topic as a whole, I am satisfied that Ms Chua had no prior snorkelling experience when she participated in the Swimming with the Sea Lions tour on 28 December 2017, and so find.
- 8.8. There were other participants who were identified during the pre-dive interviews as low-ability swimmers and snorkelers. This included a Korean tourist travelling with

⁶⁴ Transcript, page 443, 380, 699 and 53

⁶⁵ Transcript, page 387

⁶⁶ Exhibit C4, Exhibit C4a

⁶⁷ Exhibit C4a, Paragraphs 9, 10

⁶⁸ Exhibit C28, paragraph 6

⁶⁹ Transcript, page 541

⁷⁰ Exhibit C30b, paragraph 4

⁷¹ Transcript, page 340

⁷² Transcript, page 541

another tourist who was a confident swimmer and snorkeller, Mr Nicola (Nick) and Mrs Silvana Nesci and their children Sienna aged 9 and Christian aged 13. Mr and Mrs Nesci⁷³ both provided affidavits to the Court and gave oral evidence. Mr Nesci had a memory of being asked about his snorkelling ability on the boat ride to the site.⁷⁴ Mrs Nesci's recollection was that the first occasion her family's snorkelling ability was raised was when they entered the water.⁷⁵ While I accept that was her genuine recollection, it was clear that at some point prior to arriving at Blyth Island, the crew had identified the Nesci family as requiring assistance in the water. Mr Nguyen remembered speaking to a family with a '*mum, dad and two children*'⁷⁶ who might have needed some assistance in the water. This could only have been the Nesci family. Mrs Nesci was generally critical of the way the snorkelling tour was conducted and described feeling anxious and ill at ease. Given her level of discomfort, it is conceivable that Mrs Nesci may not have remembered having this discussion with the crew. I am satisfied that a pre-dive interview was conducted with the Nesci family during the boat ride and so find.

- 8.9. Mr Waller was unable to travel directly to access Blyth Island from Port Lincoln as there was a sand bar in his path. He therefore travelled south around Hareby Island (also in the Sir Joseph Banks Group), taking a right-hand turn, and heading north into the south coast shore of Blyth Island.⁷⁷ Mr Waller explained that as he approached the Island, he went to the helm of the ship to make his final assessment of the anchor site. By this time Mr Waller had been informed by his crew that there were at least eight out of 19 low-ability swimmers. As detailed above, Mr Waller believed that he most likely chose his second preferred site to anchor the vessel (the 'mooring site') due to observing tide ripples over the sand bar near the sand hole, which was his preferred site of mooring. As he explained:

'... knowing that I had, from our risk assessment and passenger assessment, eight out of 19 low-ability swimmers, nearly 15%, or high-risk individuals, there was no way I was going to put them anywhere that there was any tide. It's just too risky so we, instead, chose the location where the mooring was near the shallow rock which is where we ended up anchoring for the day, and so I would have steamed directly towards that, either with the envision to drop our anchor and spin the boat round and pick up the mooring or, if it

⁷³ Exhibits C12, C12a and Exhibits C31, C31a respectively

⁷⁴ Exhibit C12, paragraph 4

⁷⁵ Transcript, page 689

⁷⁶ Exhibit C28, paragraph 6

⁷⁷ Transcript, page 332

was wind appropriate - from memory it was onshore by that stage - anchor the vessel, turn it around and allow the wind to hold the vessel close to the rock.’⁷⁸

Instead, Mr Waller chose to moor on the southern side of Blyth Island, 20 metres from the muster rock.⁷⁹

8.10. The sea lion safety briefing

8.11. After identifying the spot to anchor the vessel, Mr Waller spoke to the participants about the snorkelling tour. He stated that the time of anchoring was 9:46am.⁸⁰ Mr Waller held the safety briefing at the back of the boat with the participants already having been fitted for wetsuits, masks and fins. He described time being of the essence with approximately 15 minutes allocated for the safety briefing and an hour for the swim time.⁸¹ The permit specified no more than 60 minutes for the total cumulative tour group time with an individual sea-lion or colony.⁸² Mr Waller told the Court that he chose to do the safety briefing himself on this particular day as he wanted Mr Nguyen, a new employee, to hear how it should be delivered.⁸³

8.12. Across the oral evidence there were various accounts of Mr Waller’s safety briefing. While it is not necessary to recount each and every version, there was a level of consistency in the evidence among the following topics that were covered. These topics were:

- Appropriate and inappropriate interactions with the sea lions;⁸⁴
- The permit area and where not to swim (onto the beach);⁸⁵
- Swimming together as a group;
- The crew would wear red t-shirts over their wetsuits (with the exception of Mr Nguyen);
- The ‘*muster rock*’ would be gathering point for the swim.

8.13. The main area of conflict that arose in relation to this topic of evidence was whether the participants were provided with information about what to do if they needed assistance whilst in the water. This became a relevant topic as no one witnessed a raised

⁷⁸ Transcript, page 333

⁷⁹ Exhibit C23b, page 2

⁸⁰ Exhibit C23a, paragraph 14

⁸¹ Transcript, page 335

⁸² Exhibit C24, Annexure A, page 13

⁸³ Transcript, page 336

⁸⁴ The permit for Blyth Island forbade crew or participants from approaching sealions resting on the beach or rocks

⁸⁵ The permit for Blyth Island forbade land (beach) access

hand or signal of distress from Ms Chua prior to her being found unresponsive. There was a suggestion by Mr Nguyen and Mr Waller⁸⁶ that the group were taught safety signals by Mr Waller to use if required. Mr Nguyen, in his oral evidence, also described a safety poster on the vessel which depicted certain hand signals to use in an emergency. There were no other witnesses who gave evidence about this poster. The forensic photographs taken by Brevet Sergeant Robert Baker on 28 December 2017 of the Adventure Lady vessel (including the inside) did not capture any such poster.⁸⁷ Mr Hamood-Smith gave evidence that pictorial safety cards were available to passengers on the boat. He described them as a *'fun information sheet...it's got a couple of hand signals that you can do in the water if you need assistance, you know, if you're all okay'*.⁸⁸ Mr Waller was unable to remember if these cards were available on the day, but he provided a simple instruction to the participants that if they required assistance in the water to look out for the crew in the red rashie vests and to raise a hand in the air.⁸⁹

8.14. The Court heard and received evidence from Mrs Catherine Ledger⁹⁰ and her husband Professor William Ledger⁹¹ who were visiting from interstate with their three adult children and another guest. Both had participated in a number of snorkelling tours before, in Australia and overseas, including Kenya and the United States. The Ledger family had participated in the Shark Cage Diving tour on 27 December 2017, also with Adventure Bay Charters. Mrs Ledger was a retired respiratory nurse and Professor Ledger was a specialist obstetrician and gynaecologist. Their evidence was of particular importance to the inquiry for two reasons. Firstly, the perspective they brought from previous snorkelling experiences, and secondly their medical skills and understanding of the cardiorespiratory system and resuscitation.

8.15. Professor Ledger could not recall any instructions being given about what to do if there was trouble in the water, or any instructions about the use of hand signals. In terms of the briefing given by Mr Waller just before the participants entered the water, he gave the following evidence:

'Q. When you've participated in other snorkelling tours were you informed about the risks involved with the snorkelling activity.

⁸⁶ Transcript, pages 543-544 (Nguyen); Transcript, pages 430-431 (Waller)

⁸⁷ Exhibit C15A

⁸⁸ Transcript, page 583

⁸⁹ Transcript, page 430-431

⁹⁰ Exhibit C21, Exhibit C21a

⁹¹ Exhibit C20, Exhibit C20a

A. Yes, certainly verbally if not in writing and a few other precautions such as for those of us who were able to swim pretty well always stay with someone else, don't swim off on your own, stay within sight of the boat, stay within sight of a guide. They did that on this trip as well but it was a rather perfunctory briefing compared with some of the others that we've had.

Q. Do you remember what topics were covered in that perfunctory briefing.

A. Well, mostly for the less well able to swim stay together, don't leave the group, stay within sight of the boat, stay within sight of the guide. That was pretty much all that we had. It was a short thing and then more about instructions about how to get into the wetsuits which some people found difficult and briefly how to use the snorkel for those who had not done it before.⁹²

8.16. Mrs Ledger was more definitive about the absence of information should trouble arise in the water, stating that the tour group was not provided with any. She was challenged about the certainty of her recollection and gave this response:

'Q. Did anybody provide instruction on the sea lion tour that you were to put your hand up and wave if you got into trouble in the water.

A. No.

Q. Is that something about which you were confident Mrs Ledger.

A. No, I think there should have been an instruction, especially as there obviously were people who were less able swimmers than others, there were children and there were other adults who were using those pool noodles as support to swim with. They're obviously not a life-saving device, so I think you should be aware that if people want to use that as a form of support, that they need a little bit more careful watching.

Q. The tours where you were taught about the hand signal and the buddy system, were they the tours at the Great Barrier Reef or in a different location.

A. Great Barrier Reef but also in the United States, we've done a couple of snorkelling trips in Florida and they won't let you into the water without a flotation device.⁹³

8.17. Ms Miriam Scherer, who participated in the tour with her partner, provided an affidavit⁹⁴ and gave oral evidence at the Inquest. She told the Court that the group were instructed by Mr Waller to put their hand up and wave if they needed assistance from a crew member.⁹⁵ She could not remember any other hand signals being taught. Mr Nguyen remembered Mr Waller giving the safety briefing and recalled him instructing the participants to raise a hand if assistance was required.⁹⁶ Mr Nguyen only participated in one tour after Ms Chua's death, realising he was significantly

⁹² Transcript, page 55

⁹³ Transcript, page 103

⁹⁴ Exhibits C22, C22a

⁹⁵ Transcript, page 661

⁹⁶ Exhibit C28, paragraph 8

affected by the events of the day and unable to get back into the water.⁹⁷ Accordingly, it is unlikely that he confused this briefing with a tour from another day.

8.18. Mr and Mrs Nesci, who participated in the tour with their two young children, could not remember any hand signals being taught to use if trouble was encountered in the water. Neither had a recollection of any brochures or cards being available as suggested by Mr Hamood-Smith. Mr Nesci was asked if information relating to safety in the water is something he would have remembered and paid attention to on the day. He gave this evidence:

‘Q. Were you feeling at all apprehensive about this tour.

A. I guess my anxiety started to increase a little bit as we I guess got further and further into the deeper water I guess as the boat was going further and further away and I guess it was an hour and a half and I think when we reached that destination point I do remember feeling a little bit anxious realising that we had to I guess essentially jump off the boat and into the water. From that I wasn’t expecting that I guess. Yeah, so I guess, yeah, I probably was paying attention to safety at that point in time and probably safety for my family members.

Q. So in terms of when you first started to pay attention to the question of safety of yourself and your family, was that once you were at the destination or at some stage prior to that.

A. I definitely would have been paying attention to it before. I guess, you know, yeah, being on a boat - we don’t go on boats very often so when we’re on a boat I guess we are - I am certainly extra cautious. So I guess I was quite vigilant if there was any information about safety.

Q. Do you think you would recall now if someone mentioned on the boat once you were at the island what to do if you got into the trouble in the water.

A. Yeah. I would, yeah.’⁹⁸

Both Mr and Mrs Nesci expressed the view that the safety briefing was inadequate for their level of ability, and they described feeling nervous when entering the water with their children, the younger of whom was not a strong swimmer. They also described a lack of supervision while they were in the water.

8.19. The evidence relating to hand signals in the water, in particular the raising of a hand to draw attention, varied between the witnesses. I am of the view that it is probable Mr Waller did mention this during the briefing, albeit in a fleeting and perfunctory way, as described by Professor Ledger. It was evident that the safety briefing related

⁹⁷ Transcript, page 551

⁹⁸ Transcript, pages 723-724

primarily to practical matters, rather than issues of safety in the water. However, the most consistent theme throughout the oral evidence was that the safety briefing did not instil a feeling of confidence in some of the tour participants, even for those who had swimming and snorkelling ability.

- 8.20. When asked to consider the proposition that his snorkelling briefing was inadequate from a safety perspective, Mr Waller told the Court that he assumed, based on the information available to customers at the time of booking, that passengers would have a level of swimming ability. Mr Waller was of the view in 2017 that the sea lion tour was low risk. He explained that as it was a snorkelling tour, it was not aimed at beginners.⁹⁹ He stated that the tour was named '*Swimming with the Sea Lions*',¹⁰⁰ and implicit therein was an ability to swim.¹⁰¹ Mr Waller pointed to the company's website in 2017 which provided information on swimming ability:

'So, more or less in the frequently asked questions, we would try and address issues like "Do I need to be a strong swimmer?"', yes, you do, you need to have some snorkelling experience advised. You know, medical conditions, you know, 'If you have medical conditions, please let us know, we'll assist wherever we can'. And that was aimed at a broad range of alternatives or concerns from disabled, in which case we had taken disabled swimmers, people who were paraplegics, in which case we would engage the dive shop next door who were trained to deal with that and we'd employ them to take these people out to deliver them the experience they wanted. So it was encouraged always to call our office and discuss anything that you felt might be of a concern and that was paramount and specific to your needs, as opposed to a general question 'Can you swim?' which if somebody - and this is my experience - is advertised as a 'Swim with the Sea Lion' tour. People were booking on the tour that couldn't swim, knowing that they couldn't swim, knowing that it was a 'Swim with the Sea Lion' tour, and assuming that that would be all right, it's not - I don't have a conversation with every person that booked on the tour, and neither did my staff 'cos people would generate leads to our tour from multiple different sources. The first time that we had an opportunity to speak to them directly was when they were on the boat. And at that point, through our risk assessment, we would make decisions on how to deal with that particular difficulty, that level of ability, or any particular concerns that those individual customers had.'¹⁰²

Mr Waller acknowledged that there were many tourists, particularly from overseas, who participated in his tour who had no swimming or snorkelling experience. He also agreed with the proposition that the '*Swimming with the Sea Lions*' tour was marketed as a fun family event for people of all ages.¹⁰³ These acknowledgements had a level of

⁹⁹ Transcript, page 320

¹⁰⁰ Emphasis added

¹⁰¹ Transcript, page 312

¹⁰² Transcript, page 388

¹⁰³ Transcript, page 390

incompatibility with the notion that all those participating in the tour would be confident swimmers and snorkellers. Certainly, for Mr and Mrs Nesci who were not confident swimmers, the safety briefing was one aspect of the tour that fell short of managing the risk in the water. Mrs Nesci also expressed the view that the questions around swimming ability should have been asked and answered at the time the booking was taken.¹⁰⁴ Even as a confident swimmer and snorkeller, Mrs Ledger shared this view.

8.21. The evidence supports a finding that the safety briefing was a generic briefing aimed at the confident swimmers and snorkellers. While Mr Waller chose to moor the boat at a particular site based on his understanding of the number of less confident swimmers, it was apparent that this information did not impact or alter the detail of the safety briefing. This was because Mr Waller placed confidence in himself and his crew (particularly Mr Hamood-Smith) to manage the weaker swimmers in the water. As Mr Waller had no mechanisms in place to assess the level of swimming and snorkelling competence in the participants prior to the tour commencing, I am of the view that his confidence was misplaced. While this was no reflection on the competence of Mr Hamood-Smith who was clearly a very experienced swimmer and snorkeller, it meant the risk assessments could only be reactive as opposed to forward planning for inexperienced swimmers. For example, having sufficient numbers of adequate buoyancy equipment. I accept the submission of Ms Roper that there was a missed opportunity at the booking stage to gather relevant information in order to properly assess risk, and so find.¹⁰⁵

8.22. The snorkelling demonstration

8.23. The Court heard that at the conclusion of the snorkelling briefing, the tour group was divided into two. Mr Waller requested that the participants who were not confident in the water remain on the boat. The more experienced and confident swimmers entered the water from the back of the boat first into water of approximately 2.5 metres deep, with Mr Hamood-Smith as their guide. Using the metadata from the first photograph taken by Ms Scherer in the water on her GoPro underwater camera,¹⁰⁶ it was reasonable to place the commencement of the first group's swim at 10am, or just before. Mr Waller had instructed Mr Hamood-Smith to swim the first group to the muster rock and then attract the attention of the sea lions. Mr Waller and Mr Nguyen remained on the boat

¹⁰⁴ Transcript, page 694

¹⁰⁵ Transcript, page 1056

¹⁰⁶ Exhibit C22, photograph 1

to assist the second group with securing masks and fins correctly. Mr Waller had offered to replace Ms Lavers as a guide in the water as she had a sore throat. Ms Lavers remained on the boat during the swim in the role of part-time *'look-out'*, in addition to her other duties on board.

- 8.24. Mr Waller stated that the Korean couple, one of whom had never swum before, entered the water as the first of the second group. Mr Waller observed the gentleman appear to panic a little when he submerged into the water, which he attributed to the 19°C water temperature. Mr Waller, who was now also in the water, instructed him to relax his breathing and look into the water with his mask. He was then asked to wait at the back of the boat and Mr Waller assisted the Chua family into the water with each of them being provided a pool noodle for additional buoyancy.
- 8.25. Mr Waller detailed in his oral evidence his assistance to Ms Chua once she entered the water. He gave this evidence:

‘A. And then from then once those people are out the way we have the opportunity to talk to individuals that are low-ability or high-risk swimmers, and in this case here may not have snorkelled before and that was the case definitely with Ms Chua, is that when she first put the snorkel on it didn’t cover her nose, so I could clearly identify that she hadn’t snorkelled before and she needed further discussion and training around that of which that’s the appropriate time to do it. We’re right there, we’re in the water, we’re not just talking about it, we can practise it immediately. I can sit in the water alongside you and we can practise breathing until you’re comfortable. And so specific snorkelling instructions are not dedicated to the whole entire group, it’s not necessary, it’s pertaining specifically to the individuals that need it.

Q. And you do recall that you had some one-to-one discussions with Ms Chua.

A. Yeah, cos she was - I had to ask her to calm down because she was breathing really fast at the time. I remember it distinctly. She’s like almost hyperventilating and I’m just saying to her ‘You need to calm down, you can’t breathe short like that when you’ve got a snorkel in your mouth because of the dead space between the mouthpiece and the top of the snorkel, you will just keep breathing in expelled air which has got less oxygen in it will make it worse for you, so that’s a long conversation for someone who is was [sic] curious about their understanding of English but that’s the context of the conversation. It would have been like; you need to calm your breathing down, just look at me, let’s just relaxed, okay, hold your breath, look in the water, can you see the bottom, can you see your feet, and ask them to do basic simple exercises like count your toes. Have you got 10 toes down there, you sure about that. These sort of things are designed to - it was pretty good over time just to make people comfortable with their environment because they were, in this case here, definitely out of their comfort zone. And then get the snorkel in their mouth and get them to practise breathing. Understand that they can’t breathe out of their nose anymore but they must breath in and out of the snorkel because out through

their nose the mask will leak. And then swimming them as a group over to the larger group which was around the muster rock. And then through that process continuing to monitor and make sure that they were comfortable with what they were doing.¹⁰⁷

Mr Waller then swam the Chua family to the muster rock with their pool noodles as flotation devices. The time that Ms Chua entered the water was likely to be shortly after 10am. This was based on a photograph depicting Ms Chua (and others) standing on the muster rock with the red noodle wrapped around her waist, taken by Ms Scherer at 10:07am.¹⁰⁸ Mr Nguyen also entered the water around this time, taking photographs of the participants and the sea lions. Mr Waller returned to the boat to assist the Nesci family.

- 8.26. When giving his oral evidence, Mr Nesci had a clear memory of entering the water with his son, as the last two participants of the tour. He recalled having difficulty with his snorkel and mask once in the water. Mr Nesci stated that his focus was on his family at that point as he was feeling anxious in the water which was cold and deep. Mr Nesci described trying to get used to his mask and snorkel as water was constantly seeping in. This heightened his anxiety at the time.¹⁰⁹ This was a sentiment shared by Ms Chua's sister, Zsyivette, who had seen photographs on the Adventure Bay Charters website, leading her to believe they would be swimming near a beach with a sandy floor.¹¹⁰ She stated:

'We were among the last passengers to enter the water. Ardebby entered the water before me and my brother. I was hesitant to get into the water. It felt like we were in the middle of nowhere and the water seemed very deep. It felt as though we were rushed to get off the boat because the boat needed to be moved away from the rock. I can't remember what the temperature of the water felt like.'¹¹¹

- 8.27. The topic of a snorkelling demonstration was commented upon by Mr Carl Charter in his capacity as an expert. Carl Charter is the Chief Executive Officer and Program Manager for Experiencing Marine Sanctuaries (EMS) Incorporated. His formal qualifications include a degree in Fisheries, a Diploma in Resource Technology, and accreditation with the Professional Association of Diving Instructors (PADI) as an Open Water Instructor and a Registered Training Organisation Instructor. EMS conduct workplace accredited training courses for snorkelling and scuba diving guides in accordance with PADI guidelines. Mr Charter has been a recreational diver and

¹⁰⁷ Transcript, pages 340-341

¹⁰⁸ Exhibit C22, Photograph 15; Exhibit C17w

¹⁰⁹ Transcript, page 726

¹¹⁰ Exhibit C4a, paragraph 11

¹¹¹ Exhibit C4a, paragraph 17

snorkeller since 1984, and holds advanced first aid certifications, including Occupational First Aid.

- 8.28. Mr Charter gave evidence about the snorkelling tours which his organisation ran in the Port Noarlunga Sanctuary Zone and Encounter Marine Park. On the topic of inexperienced snorkellers, Mr Charter indicated that his staff would always consider keeping a tour in shallow water for ‘*at-risk*’ snorkellers and at times reduce the length of the swim depending on the abilities and issues identified in an assessment of their ability completed prior to the swim.¹¹² Mr Charter spoke of the increased risk of deeper water:

‘EMS would be reluctant to take new or inexperienced snorkelers into deeper water or from a boat until a proper assessment could be completed about their ability and confidence. There are obvious increased risks associated to snorkelling in deeper water and experience has shown that inexperienced snorkelers benefit from commencing in shallower water.’¹¹³

- 8.29. As will be detailed below, Ms Chua was noted to be draining water from her snorkel and mask at different times during the swim, and just before being found unresponsive.¹¹⁴ While water seeping into the mask and snorkel was described as a normal occurrence by Mr Hamood-Smith,¹¹⁵ the evidence of Mr Nesci and Zsyivette Chua was that this event, coupled with the depth of the water they entered from the boat, contributed to the anxiety they felt, particularly at the beginning of the swim.
- 8.30. In respect of the snorkelling demonstration, Dr Lippmann commented that there was ‘*probably not enough orientation to using a snorkel and mask early in the piece and how to clear it properly*’.¹¹⁶ He noted the accounts of Ms Chua pulling the snorkel out of her mouth to drop the water out and expressed view that there was a better technique to clear the water. Given the mechanism of death as laryngospasm after aspiration of water, there is some force in this evidence. It is also supported by the accounts of Mr and Mrs Nesci having difficulty with their mask and snorkels.

- 8.31. Pool noodles and buoyancy vests

- 8.32. As the permit for Blyth Island restricted beach access for a snorkelling entry, the logical solution for an inexperienced snorkeller entering deeper water was to be supported by

¹¹² Exhibit C37b, paragraph 25

¹¹³ Exhibit C37b, paragraph 27

¹¹⁴ Transcript, page 590

¹¹⁵ Transcript, page 614

¹¹⁶ Transcript, page 1009

a flotation device. The evidence established that Ms Chua was provided with a red noodle upon leaving the vessel. She was seen in the water (and captured in photographs)¹¹⁷ using the red noodle as a flotation device. Just prior to being located unresponsive, a red noodle was seen floating adrift. When Ms Chua was found she did not have a pool noodle with her. It is probable that this red noodle was the one given to Ms Chua at the beginning of the swim. While there was no dispute that a pool noodle provided a level of positive buoyancy, the issue arose as to whether it was an appropriate flotation device as it may have become separated from Ms Chua. Dr Lippmann commented that noodles have become increasingly common for inexperienced snorkellers and are often effective. He did note however that:

‘If the user becomes detached from it, they lose the benefit of the buoyancy provided ... snorkelling vests have the advantage of being attached to the user but some are still fallible as they need to be inflated, while others (commonly used in Queensland) don’t require inflation.’¹¹⁸

- 8.33. In her affidavit, Mrs Nesci stated that her daughter Sienna was provided with a red pool noodle, however when she requested one for herself and her son, she was told there were not any left.¹¹⁹ In her oral evidence, Mrs Nesci elaborated that she was not offered any alternative flotation device such as a life jacket. Mrs Nesci described struggling with buoyancy in the water, and compared her experience to that of a snorkelling tour in Fiji where she did wear a life jacket and felt more comfortable.¹²⁰ Mrs Nesci had booked the tour online from the Adventure Bay website and had not appreciated from the information on the website that a level of swimming ability would be required. She also did not appreciate that she and her family would be snorkelling in deeper waters. This was the same understanding to that of Zsyivette Chua.
- 8.34. Mr Nesci recalled asking the crew for a life jacket for his family, but was told that the fins and wetsuits issued were enough to keep them afloat.¹²¹ Mr Nesci described the water he was swimming in as deep and feeling anxious about his own safety and that of his family.¹²² Zsyivette Chua had an expectation that life jackets would have been made available on the day, describing the current as being quite strong and having difficulty getting onto the muster rock.¹²³ Even Professor Ledger, who identified as a

¹¹⁷ Exhibit C22, photographs 15, 17 and Exhibit C17v

¹¹⁸ Exhibit C33, page 14

¹¹⁹ Exhibit C31, paragraph 5

¹²⁰ Transcript, page 691

¹²¹ Exhibit C12a, paragraph 5

¹²² Exhibit C12, paragraph 7

¹²³ Exhibit C4a, paragraph 20

strong swimmer, did not feel positively buoyant in the water with his wetsuit. He described continually making an effort to swim and stay afloat.¹²⁴

- 8.35. Mr and Mrs Nesci's evidence portrayed a feeling of anxiety and discomfort in the water, particularly for the safety of their children. It is important to note that Mr Waller did spend some time supporting the Nesci family, and in particular, Sienna. Mr Waller gave evidence that he identified Sienna as someone who may not last long in the water due to her small size and thereafter provided a one-on-one experience to take her to see a sea lion. Mr Waller's evidence was supported by the accounts of Mr and Mrs Nesci and that of other crew members. When Mr Waller brought Sienna back to the muster rock after having seen a sea lion, he asked Mr Nguyen and then Mr Hamood-Smith to assist her in the water. In that regard, Sienna was well looked after in the water. The difficulty was that Mr Waller's stated intention for providing this support did not relate to safety, it was centred around Sienna becoming too cold in the water and not enjoying the experience offered by the tour. This aspect of the evidence was support for the proposition that Mr Waller had not adequately turned his mind to the risk associated with low-ability swimmers in open waters.
- 8.36. The other issue that arose was whether there was adequate supervision in the water for all 19 participants. This was particularly so given Mr Nguyen was there in training, lacked experience and was not expected to provide any support.¹²⁵ Furthermore, Mr Waller had not assessed Mr Nguyen's swimming and snorkelling ability prior to the tour commencing. While this will be dealt with in more detail below, when considering the issue of buoyancy vests, it logically followed that their supply and use would have, to a degree, mitigated the need for the one-on-one supervision of the weaker swimmers.
- 8.37. Mr Waller did not offer buoyancy vests to participants for the snorkelling activity as he held the view that the wetsuits he supplied provided sufficient buoyancy in the water.¹²⁶ The evidence of Brevet Sergeant Brownridge supported Mr Waller's view. There were life jackets aboard the vessel, however these were AMSA approved coastal life jackets and SOLAS life jackets, fit for use in an emergency on board.¹²⁷ These particular life jackets carried by the Adventure Lady were not typically used for snorkelling activities as they were designed to hold the head out of the water. Evidence was heard and received from Brevet Sergeant Brownridge about the different life jackets available

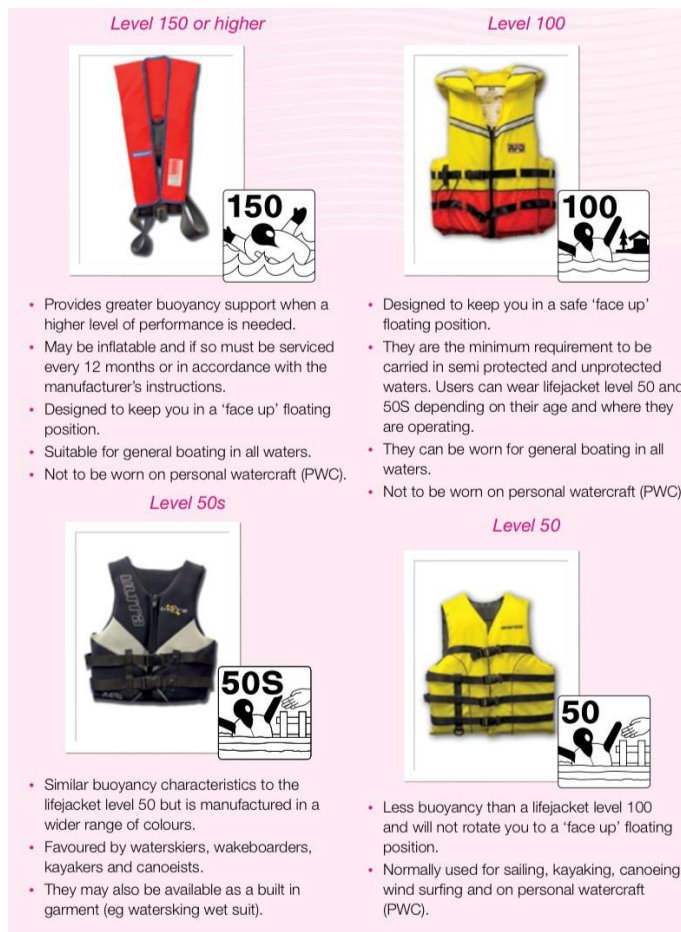
¹²⁴ Exhibit C20a, paragraph 7

¹²⁵ Transcript, page 345

¹²⁶ Transcript, page 399

¹²⁷ Transcript, page 328

generally on commercial and recreational vessels.¹²⁸ He provided a photograph of the different vests (below) and explained that the bottom two buoyancy vests (or life jackets) of level 50 were better suited for snorkelling (and other activities like jet skiing and kayaking) as they did not have a collar to keep the user in a face up position, like the top two jackets. The number allocated to the jacket represented the level of buoyancy provided by the vest, the higher the number the more buoyant the vest.¹²⁹



8.38. Some participants of the tour gave evidence of other snorkelling tours in Fiji and the USA where they had been offered buoyancy vests. It must be noted that these destinations are tropical with warmer water temperatures than South Australia. Wetsuits that provided a level of buoyancy were therefore not necessarily required. However, it was plain that there were specific types of buoyancy vests compatible with the activity of snorkelling, irrespective of the wearing of a wetsuit as outlined by Dr Lippmann in his evidence.¹³⁰ Professor Ledger expressed the view that a wetsuit is not designed to be a buoyancy aid and in fact takes in a layer of water between the skin

¹²⁸ Exhibit C16b

¹²⁹ Transcript, pages 849-850

¹³⁰ Transcript, pages 958-959

and the inside of the suit, creating a heavier burden in the water.¹³¹ Brevet Sergeant Brownridge disagreed with Professor Ledger's evidence on this topic, however he was of the opinion that buoyancy vests should be offered to participants in snorkelling activities who were not confident swimmers.¹³² He detailed that there was a psychological component to wearing a life jacket in combination with the additional buoyancy that it provided. He explained:

'I think any life jacket that is worn by anyone would make them feel psychologically buoyed. So, I think that anyone that even though that someone in a wetsuit is going to remain buoyant for someone who is uncomfortable in the water or is not a strong swimmer I think would definitely feel more buoyed by wearing a life jacket at the same time.'¹³³

8.39. Mrs Ledger had accepted the use of a buoyancy vest on a previous snorkelling tour at the Great Barrier Reef. She gave this evidence:

'[when snorkelling with a buoyancy vest] there's less effort involved if you're sort of buoyant and you can lift your face out of the water and clear your mask if necessary and there's, you know, not waves splashing over you. So yes, I would often - when snorkelling, if there was a life jacket offered, we'd take - make use of it.'¹³⁴

Mrs Ledger could not recall exactly, but thought in all tours she had participated in (with the exception of the Adventure Bay Swimming with the Sea Lions tour) she was either offered the choice of wearing a buoyancy vest, or it was mandated (in the US).¹³⁵ Professor Ledger held the concern that no life jackets had been offered for the less confident swimmers, instead they were only issued with pool noodles.¹³⁶

8.40. Mr Charter gave evidence on the use of flotation devices such as buoyancy vests. His organisation's practice for taking inexperienced snorkellers into deeper water was to decrease guide to participant ratios and increase the use of flotation devices.¹³⁷ Mr Charter did agree with the sentiments expressed by Mr Waller, that life jackets worn during snorkelling created a degree of discomfort, and that wetsuits of a particular thickness were considered flotation devices.¹³⁸ However, he made it clear that for very inexperienced swimmers, life jackets would be offered. Furthermore, if they were requested at the time of booking, this request would appear on the printed manifest and

¹³¹ Transcript, page 62

¹³² Transcript, page 846, 851

¹³³ Transcript, page 848

¹³⁴ Transcript, page 100

¹³⁵ Transcript, page 104

¹³⁶ Exhibit C20, paragraph 16

¹³⁷ Exhibit C37b, paragraph 27

¹³⁸ Transcript, page 891

be organised in advance of the tour.¹³⁹ Dr Lippmann expressed the view that a buoyancy vest for low-ability swimmers was an advantage as it offered more buoyancy. He also endorsed the use of the pool noodle, but with the caveat that it could slip out from under the user, unlike the buoyancy vest which was attached.¹⁴⁰

8.41. I have accepted the cause of death as salt water drowning with the mechanism being laryngospasm. Therefore, it is plausible that, had Ms Chua been wearing a buoyancy vest, rather than relying on a pool noodle, when she did inhale water, she would have experienced an improved chance of lifting her head from the water and clearing her snorkel and mask without more water entering her airway (as described by Mrs Ledger), reducing the potential for panic. This may have allowed for the transient laryngospasm to pass, without her taking on more water. It is also possible that Ms Chua and the red noodle became separated prior to her collapse, which caused her to panic with the loss of the additional buoyancy. A buoyancy vest would have replaced the need for the red noodle entirely. As there were no eyewitness accounts of Ms Chua getting into difficulty, I am unable to make a finding in relation to when the red noodle became separated from Ms Chua. I am of the view however, that buoyancy vests compatible with snorkelling should have been made available to the participants who identified as weaker swimmers, and so find. While not directly relevant to Ms Chua (who was issued with a red noodle), it was concerning that in the absence of snorkelling compatible buoyancy vests, there were not enough red noodles available for the participants who requested them.

8.42. Supervision in the water

8.43. Mr Waller explained that, in accordance with AMSA regulatory requirements and his company policy, he staffed his tours with the ratio of one guide to ten people in the water, in addition to one crew member remaining on the vessel at all times.¹⁴¹ He further explained that if Mr Nguyen had not been at the office and invited to accompany them on that particular day, Ms Lavers and Mr Hamood-Smith would still have been his only crew. Accordingly, Mr Nguyen's attendance meant he was a surplus crew member. Mr Waller made it clear that while he was remunerating Mr Nguyen for the tour, he was only there in a learning capacity and to take photographs. Mr Nguyen did not wear

¹³⁹ Transcript, page 890

¹⁴⁰ Transcript, pages 960-961

¹⁴¹ Transcript, pages 317, 331-332

a red 'crew vest', supporting Mr Waller's evidence about his intended role for Mr Nguyen on the day.

8.44. While I accept that Mr Waller genuinely intended for Mr Nguyen to participate in only a limited capacity on the day, the evidence of Mr Nguyen (and others) was that in addition to taking photographs, he attempted to keep the snorkellers in a group and supported Sienna Nesci in the water for a period of time before Mr Hamood-Smith took over. Relevantly, it was Mr Nguyen who first located Ms Chua in an unresponsive state and raised the alarm. Therefore, the ratio was three crew members to 19 participants in the water with Ms Lavers in the role of part-time lookout.

8.45. Dr Lippmann was asked whether the crew-to-participant ratio was appropriate. Dr Lippmann stated:

'The choice of an appropriate ratio varies depending on the conditions and the skills, health, and fitness of the participants and the advice varies between organisations ... In this case, the conditions were reportedly good, and this was supported by available footage. It was calm, sunny with good surface and underwater visibility, little current, and a reasonable water temperature. It also appears there were no natural barriers to vision from the boat or from the rock. There were two experienced guides for 19 participants, plus an additional in-water observer and a part-time lookout on the boat. In my view, despite the tragic outcome, I believe the ratio was not unreasonable given that at least half of the group appeared to have been reasonably competent.'¹⁴²

8.46. As touched on above, Mr Charter's organisation would manage the risk for inexperienced swimmers in deeper water by decreasing the guide-to-participant ratios and increasing the use of flotation devices. Ms Chua was wearing a wetsuit and was provided with a red noodle. I have found that this provided her with a level of positive buoyancy. Further, the evidence (as detailed below) revealed that Ms Chua was provided with one-on-one support in the water by Mr Hamood-Smith only minutes before she was found unresponsive. I therefore agree with Dr Lippmann's opinion that the ratio of crew-to-participants was not unreasonable and so find.

8.47. It should be acknowledged however that Mr Waller was not aware prior to the boat leaving the Marina that almost half of the participants on the tour were inexperienced swimmers and/or snorkellers. As outlined by Mr Waller, it was not company policy to enquire about swimming ability at the time the booking was made. It was purely serendipitous that Mr Nguyen was present at the Adventure Bay office in the morning

¹⁴² Exhibit C33, pages 12-13

and invited into the water as an additional quasi-crew member. While I have found the crew-to-participant ratio on the day did not directly impact on Ms Chua's death, I am of the view that not inquiring about swimming ability prior to the tour commencing for the purposes of undertaking pre-tour risk assessments, was a missed opportunity to adequately manage the risk of low-ability swimmers in open waters. I will now detail the events leading up to Ms Chua being found.

8.48. Ms Chua is found unresponsive

8.49. Mr Hamood-Smith observed Ms Chua to spend approximately 20 minutes with Mr Waller at the beginning of her swim. After supervising the stronger swimmers for the first half of the swim, Mr Hamood-Smith was asked to take over the supervision of the less confident swimmers, including Ms Chua and her brother and sister. He was asked if he observed them in the water during this time, he stated:

'Yep, yep, I recall them, I recall them in the water as well. They often - often there were times when they were snorkelling in the water and they'd get a little bit of water down their snorkel and, you know, they'd be like - they would panic - I wouldn't say panic a little bit - yeah, they would panic a little bit and I was like, "You can just take it out" and so they would just take it out and they were like "Okay, all right, thank you, good, good" type of thing and, yeah, so they'd put it back in and away they'd go again just with their heads underwater. They seemed really happy and comfortable.'¹⁴³

8.50. In this period of time, Mr Hamood-Smith described swimming about 15 metres with Ms Chua individually, towing her by the red noodle that she was either holding onto or positioning under her body. He observed her to stop a few times and remove the snorkel from her mouth to clear the water, helping her with this on one occasion.¹⁴⁴ Mr Hamood-Smith described Ms Chua as appearing calm and happy during this time and estimated that he spent about five minutes with her. He then swam Ms Chua back to the muster rock where other participants were standing. Approximately two minutes after that, Mr Hamood-Smith swam away and observed Ms Chua swimming about 3-5 metres away from the muster rock in water approximately 1.8 metres deep.¹⁴⁵ While he could not remember doing so in his oral evidence, his addendum statement (provided on the day of the incident) reflected that he left Ms Chua to respond to a request from Mr Waller that he assist Mr Nguyen with another customer.¹⁴⁶

¹⁴³ Transcript, page 590

¹⁴⁴ Exhibit C30d, paragraph 10

¹⁴⁵ Transcript, page 624

¹⁴⁶ Exhibit C30d, paragraph 12

- 8.51. The evidence as a whole supported a finding that the ‘customer’ Mr Hamood-Smith referred to was Sienna Nesci. Mr Nguyen indicated that just before he located Ms Chua in an unresponsive state, he was supporting Sienna Nesci in the water. Mr Nguyen had a memory of Mr Hamood-Smith offering to take Sienna from him and requesting that he place her on his shoulders as they were at the point where the crew were regrouping the participants.¹⁴⁷ Just after returning Sienna to the muster rock, Mr Hamood-Smith recalled Mr Waller asking him to retrieve a stray red noodle which was adrift.¹⁴⁸ This evidence was corroborated by a number of witnesses, including Mr Waller.¹⁴⁹
- 8.52. Mr Nguyen did not hear Mr Waller’s remark about the stray red noodle. This was unsurprising given what he encountered next. After Mr Hamood-Smith offered to take Sienna from him, Mr Nguyen was swimming back to the group when he noticed a swimmer face down in the water who did not appear to be moving. He stated:
- ‘...Sam came up and offered to take Sienna from me. I started to swim toward the group and I noticed a swimmer in the water face down. It was difficult to work out if they were swimming or floating or if something was wrong because I was approaching from behind. I noticed they were not moving so I grabbed them around the waist with my left arm and waved in the air with my right arm and yelled emergency. Sam came over and told me to get her on her back and swam her to the shallow ledge which is a rock in the water. It was about this time that I realised it was Debbie...’¹⁵⁰
- Mr Nguyen initially thought Ms Chua was one of experienced swimmers who was following the sea lions. Mr Nguyen explained that he only noticed Ms Chua was unresponsive when he swam right up to her. He stated that, from a distance, she would have appeared like any other snorkeller, face down in the water. However, as he approached her, he noticed that Ms Chua did not have the snorkel in her mouth.¹⁵¹ Mr Nguyen raised the alarm by calling out ‘*Emergency! Emergency!*’¹⁵²
- 8.53. The last known photograph believed to feature Ms Chua in the water was taken at 10:27am by Ms Scherer.¹⁵³ This depicted Ms Chua snorkelling with the ends of the red noodle on either side of her, suggesting that it was positioned underneath her body as a flotation aid at the time. The last photograph taken by Ms Scherer was a picture of herself and Mr Wingrave smiling, with the metadata reflecting it was taken at

¹⁴⁷ Transcript, pages 546-547

¹⁴⁸ Exhibit C30d

¹⁴⁹ Transcript, page 120 (Ledger); page 346 (Waller); page 591 (Hamood-Smith); page 699 (Nesci)

¹⁵⁰ Exhibit C28, paragraph 11

¹⁵¹ Transcript, page 561

¹⁵² Transcript, page 347 (Waller) pages 592, 636, 648 (Hamood-Smith)

¹⁵³ Exhibit C17v, Annexure A,

10:37am.¹⁵⁴ It is reasonable to conclude that Ms Scherer would not have taken photographs after Ms Chua was found, as she heard Mr Nguyen call out ‘*Emergency*’ and observed the resuscitation efforts unfold.¹⁵⁵ There was sufficient time in the period between the two photographs being taken (10 minutes) for Mr Hamood-Smith to have spent time with the Chua family, and then Ms Chua individually, and returned her to the muster rock as he described in his affidavit. I am satisfied that Mr Hamood-Smith was the last person to see Ms Chua swimming in the water, before she was found unresponsive by Mr Nguyen, and so find.

8.54. Mr Hamood-Smith was asked to estimate how long after he had seen Ms Chua that he heard Mr Nguyen raise the emergency alarm. He was challenged on this timeframe in the following passage of evidence:

‘Q. In your affidavit you said ‘I think I was gone about 40 seconds when I heard Thanh yell “Emergency, emergency”. It’s a very specific time you have mentioned there of 40 seconds when you provided this statement; do you know how you arrived at that estimation?’

A. I think I arrived at it because everything is happening very quickly and everything felt very quick, and I can’t say if that’s accurate or not; I wasn’t nearby and I was very - I kept a very constant eye on them and engaged in conversations with them and to assure them they were all okay. I’d say that 40 seconds would be, I’d give or take 20 seconds on that, but it’s, yeah, everything happened very quickly to my memory. Yeah, so sorry I can’t be much help there on that one.’¹⁵⁶

8.55. Upon leaving the muster rock and observing Ms Chua to be swimming approximately three metres away, Mr Hamood-Smith swam to Mr Nguyen to assist with Sienna Nesci, returned her to the muster rock and was then asked to retrieve the adrift red noodle by Mr Waller. He believed that he had just reached the red noodle when he heard Mr Nguyen yell ‘*Emergency*’.¹⁵⁷ Based on his hand drawn map,¹⁵⁸ which was largely consistent with the marked-up area map provided to Detective Heading by Mr Waller during the coronial investigation (below),¹⁵⁹ it is unlikely that these actions, when assessed cumulatively, took only 40 seconds to a minute. However, the significant aspect of Mr Hamood-Smith’s memory was that this period of time was unexpectedly short. Taking this into account in combination with the objective evidence, I accept

¹⁵⁴ Exhibit C17

¹⁵⁵ Exhibit C22, pages 7-8

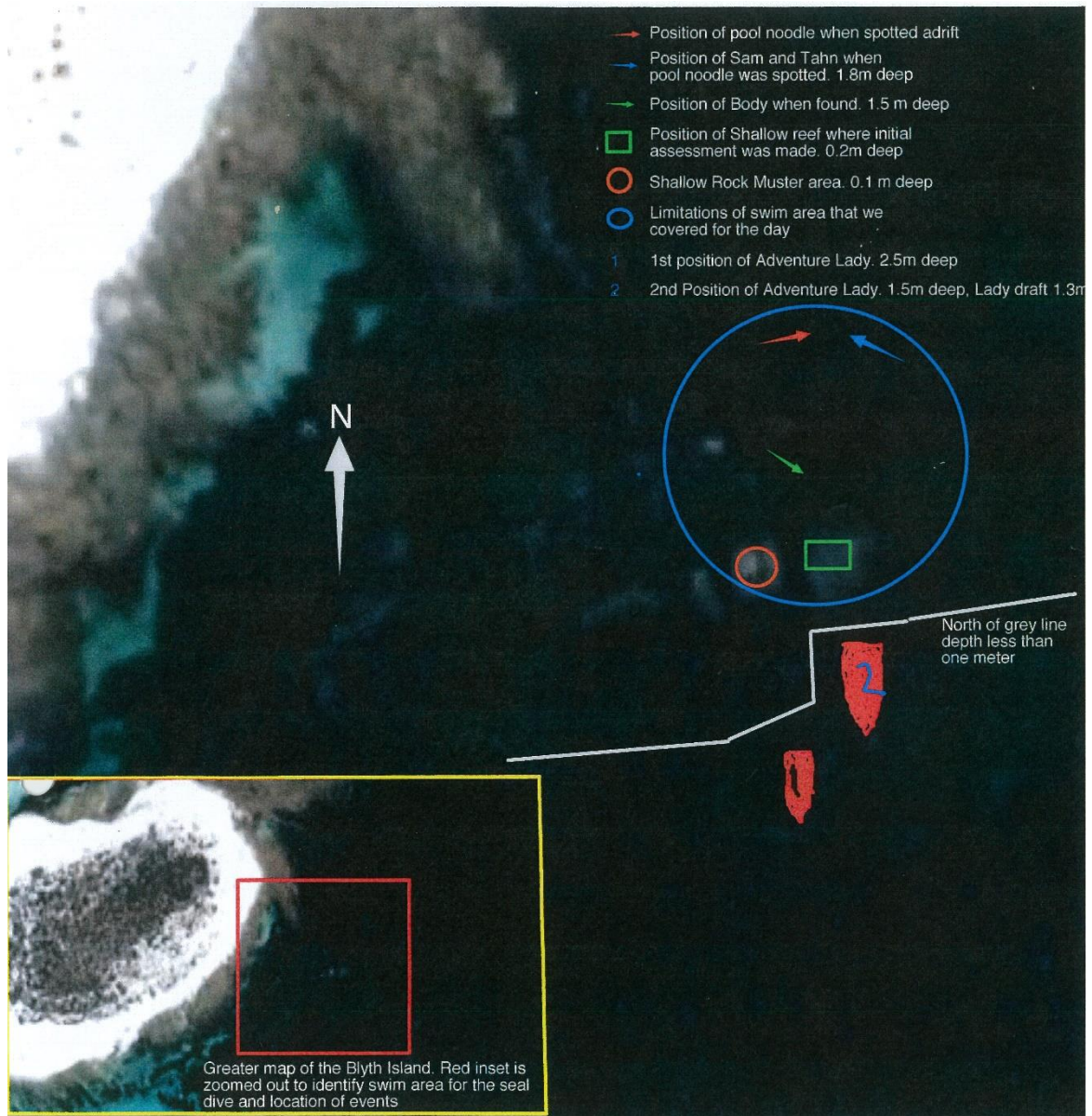
¹⁵⁶ Transcript, pages 624-625

¹⁵⁷ Transcript, page 636

¹⁵⁸ Exhibit C30c

¹⁵⁹ Exhibit C23a, Annexure E

that it was only a matter of two or three minutes between Mr Hamood-Smith last seeing Ms Chua swimming in the water and her being found unresponsive. It is impossible to be more precise about the timing.



8.56. The resuscitation on the muster rock

8.57. The evidence relating to Ms Chua being found unresponsive and then retrieved to the muster rock was consistent across the evidence. After raising the alarm, Mr Hamood-Smith swam to assist Mr Nguyen and together they swam Ms Chua back to the muster rock, which was approximately 10 to 15 metres away.¹⁶⁰ Mr Hamood-Smith was immediately aware that Ms Chua was unconscious and not responding. At some point

¹⁶⁰ Exhibit C30b, paragraph 7; Transcript page 626

after swimming to her location, he removed Ms Chua's face mask and noted her lips appeared blue, '*almost like she'd been in a freezer*'.¹⁶¹ Mr Hamood-Smith described holding Ms Chua's head out of the water as he and Mr Nguyen swam her back to the closest point, being the muster rock. At some point prior to reaching the muster rock, Mr Waller reached Ms Chua and assisted Mr Nguyen and Mr Hamood-Smith. He too had a recollection of removing Ms Chua's mask and noticed her to be a blue colour, with foam coming from her mouth and nose.¹⁶² Whether it was removed by Mr Hamood-Smith or Mr Waller, the evidence was clear that the mask was still on her face when she was found in the water.¹⁶³ Ms Lavers was seen to respond to the emergency and dive from the boat into the water fully clothed. There can be no doubt that Mr Nguyen's alarm of '*Emergency*' was effective and that there was an immediate response from the crew, and I so find. I also find that when Mr Nguyen found Ms Chua, she no longer had her snorkel in her mouth, but her mask was still in place.

- 8.58. The muster rock was described as being submerged in water about knee deep or 40 cm.¹⁶⁴ This was where Ms Chua was taken and where resuscitation efforts commenced. Professor and Mrs Ledger's son, Sam Ledger, provided an affidavit which detailed his observations of Ms Chua being brought back to the muster rock. He was on his way to the muster rock when he saw Ms Chua. It was obvious to Sam Ledger that she was unresponsive which prompted him to call out to his mother, a nurse, and father, a doctor, for their assistance. The assistance provided to Ms Chua, in particular by the Ledger family, was described by Sam Ledger below:

'As the woman was brought to us my family and I all got around her and held her body to keep her flat and out of the water. Thomas and I held her waist, Jaquelyne got her legs and Alex and my mother were at her head. We immediately started CPR at Mum's request. My Mum immediately started compressions and Alex gave the breaths to begin with. My Dad swam back to the boat to look for a stretcher or a surfboard, something flat to place her on but we were told they didn't have anything.'¹⁶⁵

- 8.59. When Ms Chua was brought to Mrs Ledger's location on the rock, Mrs Ledger described placing her finger on the carotid artery to feel for a pulse, which she was unable to detect. Mrs Ledger noted that Ms Chua's chest was not moving, she could

¹⁶¹ Exhibit C30b, paragraph 7; Transcript, page 634; Transcript page 596

¹⁶² Transcript, page 348

¹⁶³ This was relevant from the perspective of the post mortem findings of elevated levels of sodium and chloride taken from the vitreous humour, detailed at the beginning of the finding. Had Ms Chua's mask been displaced when she was face down in the water, the levels of sodium and chloride may not have been accurate.

¹⁶⁴ Exhibit C6, page 4; Exhibit C7, page 5

¹⁶⁵ Exhibit C5, paragraphs 19-20

not detect any breathing, and she appeared grey in colour.¹⁶⁶ Mrs Ledger indicated that her observations of Ms Chua led her to believe she needed to provide medical assistance for a cardiac arrest.¹⁶⁷ Professor Ledger explained that his wife was a retired respiratory nurse who worked on wards where cardiac arrests were relatively common. He expressed the view that his wife was an expert in resuscitation at an advanced level.¹⁶⁸ As described by her son Sam Ledger, Mrs Ledger commenced the CPR efforts with the assistance of her children and Jaquelyne Vullingshs (her son, Alex's partner). Mrs Ledger observed:

‘... considerable difficulty in the efforts being made to conduct CPR in the water. Some of the men were squatting on the rock with [Ms Chua] across their knees in an effort to provide a more solid surface to effectively administer CPR.’¹⁶⁹

8.60. Professor Ledger recalled watching the resuscitation efforts for a few minutes at which time Ms Chua ‘*opened her eyes, spewed up water and vomited*’.¹⁷⁰ She was turned into the recovery position. A number of the participants gave evidence about Ms Chua appearing to momentarily gain consciousness at this point.¹⁷¹ Some described a cheer amongst those observing the resuscitation efforts on the rock, believing that she had been revived.¹⁷² Mrs Ledger thought she felt a weak pulse and asked Zsyivette Chua what her name was in an attempt to illicit a response. Mrs Ledger gave this evidence:

‘A. Yes. She sort of flickered her eyelids because that’s when I asked her sister what her name was so that we could try and talk to her.

Q. Is that consistent with there being some kind of cardiac output at that stage.

A. I thought I had a sort of slight pulse so there might have been but we then had to get - that was when I said we needed to get her back to the boat because we were in a terrible situation and that was probably the only opportunity we would have to get her back onto the boat.’¹⁷³

8.61. Whether it was a return of circulation or an agonal reflex,¹⁷⁴ as will be discussed below, it was only momentary, and CPR was recommenced. Professor Ledger then swam back to the boat to look for a surfboard or something similar but was unable to find anything

¹⁶⁶ Exhibit C21, paragraph 20

¹⁶⁷ Exhibit C21a, paragraph 17

¹⁶⁸ Transcript, page 66

¹⁶⁹ Exhibit C21a, paragraph 17

¹⁷⁰ Exhibit C

¹⁷¹ Transcript, pages 108-109, 116 (C Ledger), page 547 (Nguyen), page 921 (Charter); Exhibit C5, page 5 (S Ledger) and Exhibit C7, page 5 (A Ledger)

¹⁷² Exhibit C12, page 4; Transcript, page 738

¹⁷³ Transcript, page 109

¹⁷⁴ Agonal breathing is when someone who is not getting enough oxygen is gasping for air. It is usually due to cardiac arrest or stroke. It's not true breathing. It's a natural reflex that happens when your brain is not getting the oxygen it needs to survive. Agonal breathing is a sign that a person is near death.

of that nature. Professor Ledger also expressed the opinion that despite the best efforts of those giving CPR on the rock, Ms Chua's best chance of survival was to be taken back to the boat as quickly as possible to continue resuscitation on the boat deck as it was a stable surface.¹⁷⁵ Professor Ledger reinforced this view in his oral evidence after learning that the cause of death, as suggested by the forensic pathologist, was *salt water drowning*. He gave this evidence:

'Which just again reinforces my belief that if we had been able to act quickly, preferably if there had been a small tender to pick Ms Chua's body up and take it immediately to the boat, and if the boat had then been equipped it would have given a much better chance of us doing a proper CPR with the most efficient technique, or secondarily if there had been some kind of a firm body board we could have kept her body on when doing the resus on the water, but ideally we would have been back to the boat quickly and then the pieces of equipment we're talking about would then have been useful.'¹⁷⁶

8.62. Mrs Ledger also recalled asking Mr Waller for a surfboard or something solid to either take Ms Chua back to the boat, or to provide a more stable surface on the muster rock. She was told that he did not have a board, so Mrs Ledger asked him to bring some life jackets to place under Ms Chua.¹⁷⁷ While there were different accounts of who brought the life jackets back (Mr Waller or Mr Hamood-Smith),¹⁷⁸ it was clear that life jackets were retrieved and placed underneath Ms Chua to provide some stability during the resuscitation efforts. After a period of approximately 10 to 15 minutes, a decision was made to swim Ms Chua back to the boat to continue resuscitation efforts there. Mr Waller moved the boat closer to the muster rock for the retrieval to take place.¹⁷⁹ It was evident that the emergency response was formulated as the crisis unfolded, rather than a planned in-water rescue being followed.

8.63. Ms Lavers described how Ms Chua was retrieved back to the Adventure Lady in some detail in her affidavit. She stated:

'We placed life jackets under Debbie and put a noodle under her neck and continued with CPR for a bit longer before swimming her to the boat. When swimming her back to the boat Sam had hold of her right shoulder, I had hold of her left should and others who I believe were part of the Ledger family also assisted although I cannot recall who. We walked her along the rock as far as we could before swimming her to the boat ensuring we held her head up out of the water. Once we got near the boat Matt threw the ring which Sam grabbed hold of and helped pull us in. Matt then pulled her out of the water onto the

¹⁷⁵ Exhibit C20, paragraph 11

¹⁷⁶ Transcript, page 87

¹⁷⁷ Exhibit C21, paragraph 22

¹⁷⁸ Ms Lavers stated it was Mr Hamood-Smith, however all the other witnesses stated it was Mr Waller who brought the life jackets over to the group

¹⁷⁹ Transcript, page 38; Exhibit C23, page 13

marlin board which is at sea level and one of the passengers, I cannot recall who, continued with CPR on the marlin board.’¹⁸⁰

- 8.64. The timing of the resuscitation efforts on the muster rock, in addition to the time it took to retrieve Ms Chua back to the boat, had forensic significance for the issue of the preventability of her death. As will be detailed below, the consensus among the experts was that Ms Chua’s best chance of survival was to be expeditiously retrieved back to the boat for resuscitation on a hard surface immediately upon being discovered unresponsive. There were various accounts of how long the CPR efforts continued on the muster rock. Mrs Ledger estimated between 5 and 10 minutes.¹⁸¹ Professor Ledger agreed with his wife’s estimate.¹⁸² Mr Nguyen thought it was only 5 minutes.¹⁸³ Mr Hamood-Smith gave an estimate of 10 minutes. Mr Wingrave thought it was as long as 30 minutes.¹⁸⁴
- 8.65. In order to establish an approximate time, the point at which the Mayday call was recorded provided some assistance. Evidence established that this call was made by Mr Hamood-Smith and logged by the radio operator at the Tumby Bay volunteer radio (VMR) in the Coast Station Log at 10:52am.¹⁸⁵ Mr Hamood-Smith estimated that it took him two minutes to swim back to the boat to raise the alarm once he had assisted Mr Nguyen to bring Ms Chua back to the muster rock. Working back in time and allowing between two and three minutes for Ms Chua to be retrieved to the muster rock after being located, that left between 10:38am (one minute after the last photograph was taken by Ms Scherer) and 10:47am for Ms Chua to have been located. Mr Waller estimated the time the Adventure Lady left Blyth Island was 11:08am,¹⁸⁶ with the arrival time at Tumby Bay being 12:13pm.¹⁸⁷ Taking the latter time that Ms Chua was likely to have been found, approximately 10:47am, and assuming Ms Chua was on the boat a few minutes before the boat left Blyth Island, that meant the collective efforts on the muster rock and the retrieval back to the boat took approximately 18 minutes at the earliest. At its longest, it was approximately 30 minutes. While it is not possible to be more precise about the period of time it took for Ms Chua to be retrieved to the boat

¹⁸⁰ Exhibit C27, paragraphs 26 and 27

¹⁸¹ Transcript, page 109

¹⁸² Transcript, page 67

¹⁸³ Exhibit C28, page 4

¹⁸⁴ Exhibit C11, page 11

¹⁸⁵ Exhibit C17u, Annexure B

¹⁸⁶ Exhibit C23b - The Adventure Lady arrived at Tumby Bay at 12:13pm and it was Mr Waller's evidence that this journey takes 65 minutes

¹⁸⁷ Exhibit C17, page 21

after being found unresponsive, the evidence supports a finding that it was an unacceptably prolonged period and impacted on Ms Chua's chances of survival.

8.66. The resuscitation efforts on the Adventure Lady and the first aid kit

8.67. Once on board the Adventure Lady, members of the Ledger family and Mr Wingrave initially continued with the resuscitation efforts. Mr Waller was heard to yell out '*we need to go*', and in response Ms Lavers ran to the front of the boat, started the engine, and raised the anchor. Mr Waller then instructed Ms Lavers to '*put her in gear*', meaning to her that she was to drive the boat.¹⁸⁸ A short time later, Mr Waller assumed control of the vessel from Ms Lavers and a number of witnesses described it as becoming much noisier with the increased speed. Ms Lavers then assisted with the resuscitation efforts of Ms Chua.

8.68. Mrs Ledger described boarding the Adventure Lady and asking for the first aid kit in between assisting with the resuscitation efforts. She was specifically looking for airway or other resuscitation equipment.¹⁸⁹ When provided with the first aid kit Mrs Ledger described being '*devastated*' as it only contained a mask, plaster and bandages, and the elastic on the mask had perished, creating an issue with the seal.¹⁹⁰ She had hoped that the kit would contain an oxygen mask and bag to assist providing air to Ms Chua, oxygen and a Brook airway. In her oral evidence, Mrs Ledger stated her expectation of the first aid kit was as follows:

'I feel it should have had an airway. I would have expected it to have the Guedel airway,¹⁹¹ an Ambu bag, which is a bag that you can pump air into the lungs which attaches to the face mask so that you're not blowing your physical air in, you're actually pumping air in. It would have been nice to have oxygen and they must carry oxygen when they do dives on other tours though. The availability of oxygen would have been nice. Apart from that you then get into advanced equipment that it's unlikely people would be able to use.'¹⁹²

8.69. Professor Ledger also gave evidence on this topic. He shared the view that the first aid equipment was insufficient for resuscitation purposes. He felt that an airway, a bag with mask (which was present), a defibrillator and oxygen all would have impacted on

¹⁸⁸ Exhibit C27, paragraph 28

¹⁸⁹ Exhibit C21, paragraph 29

¹⁹⁰ Exhibit C21a, paragraph 20

¹⁹¹ An oropharyngeal airway (also known as an oral airway, OPA or Guedel pattern airway) is a medical device called an airway adjunct used in airway management to maintain or open a patient's airway. It does this by preventing the tongue from covering the epiglottis, which could prevent the person from breathing.

¹⁹² Transcript, page 112

the ability to conduct resuscitation efforts. In addition, he mentioned the benefit of adrenaline in the form of an EpiPen.¹⁹³

- 8.70. In terms of what the Adventure Lady was required to carry by way of first aid equipment, there was some confusion about this at the commencement of the Inquest as to the class of the vessel. This was clarified by Detective Heading upon receiving confirmation from AMSA. By way of email dated 24 March 2023, Mr Kevin Schindler, a senior advisor and inspector, confirmed that the Adventure Lady was a Class 1C or 1D vessel¹⁹⁴ and therefore required to carry a Class F first aid kit.¹⁹⁵ Relevantly, the carriage of oxygen and an AED was optional and not mandated.
- 8.71. The availability of an AED and oxygen was relevant to the topic of improving Ms Chua's chances of survival. Based on the expert evidence I have detailed below, an AED was unlikely to have improved Ms Chua's chances of survival as its efficacy was dependent upon Ms Chua having a shockable rhythm. According to Professor Kelly, in a drowning death, this was unlikely. Furthermore, the ambulance records reflected that upon Ms Chua being received into their care (over an hour after she was found unresponsive), she was in asystole, which is a non-shockable rhythm. However, the evidence revealed that the carriage of oxygen onboard a commercial vessel from which aquatic activities were conducted, was of the utmost importance.
- 8.72. Mr Waller was asked about whether he had considered carrying supplemental oxygen given the nature of the activity his company conducted. Mr Waller did not directly answer this question, instead referred to the class of the vessel and the scale of first aid kit required. Mr Waller was of course correct in saying he was not required to carry oxygen. In relation to an AED, Mr Waller indicated that he had not turned his mind to the carriage of such a device.¹⁹⁶ Mr Hamood-Smith stated that had there been oxygen on board at the time of the incident it would have been used and agreed it should have been available.¹⁹⁷
- 8.73. Whether mandated or not, Professor Kelly's evidence illustrated the importance of oxygen in a drowning or near drowning episode. I am of the view that although not

¹⁹³ Exhibit C20, paragraph 14; Exhibit C20a, paragraph 8

¹⁹⁴ Exhibit C17q, Annexure C

¹⁹⁵ Exhibit C17q, Annexure B - [AMSA Commercial Vessels - Scale F First Aid Kit](#)

¹⁹⁶ Transcript, page 448

¹⁹⁷ Transcript, page 652

required under law, oxygen should have been carried by the Adventure Lady due to the nature of the activity (snorkelling and swimming) undertaken on the tour.

8.74. The beach, the tender and the surfboard

8.75. A question was posed during the course of the evidence as to whether Ms Chua should have been retrieved to the beach on Blyth Island as it provided a stable surface for resuscitation. In considering whether this was a feasible option there were a number of considerations. The permit did not allow land access to Blyth Island, and the participants had been told not to swim onto the beach.¹⁹⁸ However, in the event of an emergency it was arguable that these requirements would not be enforced. Mr Charter gave evidence that if he was faced with a similar situation as that which arose on 28 December 2017, and the beach was closer than the boat, he would take the unconscious person to the firm ground on the beach and not concern himself with the permit. His expectation was that DENWR would not penalise such an action in an emergency situation.¹⁹⁹ When Ms Chua was found by Mr Nguyen, the evidence supported her being relatively close to the muster rock. The muster rock was approximately 20 metres south of the first anchor point of the boat.²⁰⁰ Mr Waller then brought the boat closer to the muster rock while the resuscitation efforts were underway. The No.2 marked on the Arial Map above²⁰¹ represented this location. Mr Waller estimated that the beach was approximately 100-150 metres from the location where Ms Chua was found. Mr Waller gave this evidence:

‘I feel 100% confident that I would have made the decision of the boat over the beach on the basis that assistance was not going to be available on the island long-term and the vessel was where she needed to be to get to the most immediate assistance. The distance of dragging someone 100-150 m through the water unconscious, which was the resources that we had available to us, would have been considerable, and in the case of the day, all things being equal, we had the benefit of the shallow rock as a waypoint to do an initial assessment and assist, and I believe that early intervention point probably gave us a lot of information and nearly - it seems it appears nearly, maybe we would have saved her.’

8.76. I accept that the muster rock was much closer and the more obvious location in which to initially retrieve Ms Chua. From that point, the boat was moved and brought closer to the muster rock. Furthermore, if Ms Chua had been retrieved to the beach, she would have ultimately required moving again and the only way for that to occur would have

¹⁹⁸ Transcript, pages 337-338

¹⁹⁹ Transcript, page 937

²⁰⁰ Exhibit C23a, paragraph 30

²⁰¹ Exhibit C23a, Annexure E

been on the boat. I am not critical of the decision to take Ms Chua to the muster rock instead of the beach in the circumstances. The critical issue was the length of time spent on the muster rock due to the lack of a coordinated in-water rescue plan.

8.77. In respect of the use of a tender on the tour, evidence was heard that this could have potentially expedited the resuscitation efforts of Ms Chua on to a hard surface (the boat). As the leader of the resuscitation efforts, Mrs Ledger was asked the following question:

‘Q. Would the presence of a tender boat have had any impact on the length of time you performed CPR for in the water on the rock.

A. If we'd had a tender boat I suspect that we'd have got her back to the main boat as fast as possible and started CPR there because it was pretty difficult in open water and we have no choice, but the optimum thing would have been to get the patient to the boat and onto a hard surface so that we would have some - at least some surface that would be hard enough to do effective compression.’²⁰²

Mr Waller was of the view that a tender created a considerable risk of contact with the sea lions, divers and snorkellers in the water and that there was a legislative requirement than a tender driver must have a coxswain's ticket, making crewing and manning more difficult.²⁰³ Mr Waller further noted the difficulties of a tender in respect of in-water rescue, that it was physically difficult to lift an unconscious body onto a flotation device.²⁰⁴ I do note that the permit for Blyth Island anticipated the use of a tender, thereby impliedly endorsing its use, in addition to the main vessel.²⁰⁵ Furthermore, following Ms Chua's death, Adventure Bay Charters added a tender to its inventory, although apparently this was not for aiding with in-water retrieval of unconscious persons, rather for observational reasons.²⁰⁶

8.78. Mrs Ledger also raised the utility of a surfboard or backboard in the resuscitation efforts of Ms Chua. Professor Ledger swam back to the boat in search of something of this nature. This was to assist in the retrieval of Ms Chua to the boat, or to use as a stable surface to conduct CPR on the muster rock. Mr Waller's evidence in relation to the tender was also given in relation to the use of a surfboard; that it was difficult to lift an unconscious person onto a flotation device on the water. I accept that there were

²⁰² Transcript, page 125

²⁰³ Transcript, page 419

²⁰⁴ Transcript, page 357

²⁰⁵ Exhibit C24, Annexure A, page 12

²⁰⁶ Transcript, page 358

practical impediments to having a tender, particularly for a small business with limited staff and qualifications. However, the carriage of a surfboard or backboard raised none of those issues and would have been easy to store and have readily available.

- 8.79. Based on the evidence of both Professor and Mrs Ledger that a surfboard (or backboard) was requested in the first few minutes of resuscitation, I am of the view that if a surfboard had been available Ms Chua would have been moved back to the boat sooner than she was. The evidence Mrs Ledger gave in relation to the tender equally applied to a surfboard given the difficulties she encountered on the muster rock.²⁰⁷

9. **Dr John Lippmann**

- 9.1. Dr John Lippmann, in his capacity as an expert, provided a report²⁰⁸ to the Court and gave oral evidence in his capacity as an expert on the topic of the recreational snorkelling industry. Dr Lippmann is the Chairman and Chief Executive Officer of the Australasian Diving Safety Foundation. He received an Order of Australia Medallion in 2007 for services to scuba diving safety, resuscitation and first aid training and in particular the establishment of the Divers Alert Network Asia-Pacific. His qualifications include a Doctor of Philosophy (PHD), a Bachelor of Science and a Master of Applied Science. He has been involved extensively in the study of scuba diving and snorkelling fatalities in Australia since 2000 and has published widely on this topic in peer reviewed journals since that time.
- 9.2. Dr Lippmann was in a unique position to provide evidence on the circumstances surrounding Ms Chua's death due to his extensive diving experience, in addition to his studies and publications on the Queensland snorkelling and diving industry.
- 9.3. Dr Lippmann drew the Court's attention to a research report that he authored, titled '*Rescue and resuscitation factors in scuba diving and snorkelling fatalities in Australia, 2001-2013*'.²⁰⁹ The aim of this study was to examine first aid measures applied in a large series of Australian dive (and snorkelling) related fatalities to better understand where improvements could be made. Dr Lippmann commented in the introduction paragraph of the paper that from his 25 years' experience dealing with diving

²⁰⁷ Transcript, page 125

²⁰⁸ Exhibit C33

²⁰⁹ Exhibit C33d

emergencies through the Divers Alert Network Asia-Pacific (DAN AP), it was evident that:

‘The on-site management of serious dive injuries [was] often relatively poor, especially in some developing countries with fewer pertinent regulations and oversight of the conduct of diving activities.’²¹⁰

- 9.4. Dr Lippmann detailed in this paper, as well as his oral evidence, that there was equipment that should be mandated for any commercial dive/snorkelling operation. I understood that the two most important pieces of equipment from Dr Lippmann’s perspective was an AED and supplemental oxygen.
- 9.5. In terms of supplemental oxygen, Dr Lippmann acknowledged the difficulty of using this on an unresponsive person. However, he was of the view that all commercial snorkelling tour boats should be equipped with constant oxygen flow masks and oxygen tanks as the activity is in an aquatic environment where drowning is a risk. Dr Lippmann supported the mandatory carriage of supplemental oxygen amongst commercial operators in the South Australian industry.²¹¹ A study that he had undertaken revealed only a low proportion of snorkelling fatalities were administered supplementary oxygen, which Dr Lippmann opined was partly due to oxygen units being unavailable, or not fit for use due to faulty parts.²¹² This evidence complimented that of Professor Kelly who provided a compelling pathophysiological reason to have oxygen on board for drowning incidents. This is detailed below.
- 9.6. Dr Lippmann was also supportive of the carriage of AEDs based on his research in the area. While his evidence detailed the low rate of success of AEDs in drowning cases, Dr Lippmann was of the view that this was in part due to delay in the recognition of an unconscious participant and then the delay in bringing them back onto the boat to use the defibrillator. Notwithstanding the low rate of success with AEDs in commercial snorkelling tours, Dr Lippmann indicated that there were some individuals that could be saved who were usually in the older cohort of participants with a cardiac cause being responsible for their arrest whilst in the water. While not directly relevant to the death of Ms Chua, there is certainly a strong basis for having an AED on board a commercial snorkelling tour and indeed one was available on the Adventure Lady when the Court conducted the view of Blyth Island. It is important to note that the use of an AED is

²¹⁰ Exhibit C33d

²¹¹ Transcript, page 966

²¹² Exhibit C33d, page 106

dependent upon a shockable heart rhythm being present. The presence of shockable rhythm is one of the main predictors for survival in a drowning incident.²¹³ While Dr Lippmann agreed with Professor Kelly that, historically, there were some practical considerations with keeping AEDs around aquatic environments, there were now devices designed to be water resistant.²¹⁴

10. **Professor Anne-Maree Kelly**

- 10.1. The Court sought an expert opinion from Professor Anne-Maree Kelly, Senior Emergency Physician, in her capacity as an expert in emergency medicine. Professor Kelly is an experienced clinician who is a fellow of the Australasian College for Emergency Medicine.²¹⁵ She currently holds the posts of Professor and Academic Head of Emergency Medicine and Senior Emergency Physician at Western Health in Footscray, Victoria and Adjunct Professor at the Australian Centre for Health Law Research, Queensland University of Technology. Professor Kelly has more than 30 years' experience in Emergency Departments (ED) as a specialist in South Australia, New Zealand and Victoria. She has worked in large, medium-sized and small EDs and in public (rural and urban) and private hospital settings treating both adults and children.
- 10.2. Professor Kelly provided an expert report to the Court²¹⁶ and gave oral evidence. The relevant aspects of Professor Kelly's evidence related to the efficacy of supplemental oxygen and AEDs in drowning incidents, the mechanism of drowning from which water can enter the airway (laryngospasm), and the preventability of Ms Chua's death, given that she had ultimately suffered a cardiac arrest in an out of hospital setting.
- 10.3. Professor Kelly informed the Inquest that the World Health Organisation's (WHO) definition of drowning is '*the process of respiratory difficulty caused by submersion and/or immersion in a liquid*'.²¹⁷ She explained the physiological changes that occur when someone enters the water, but relevantly for this Inquest, the main issue with drowning was what happens when water gets into your airway. Professor Kelly's evidence was as follows:

²¹³ Exhibit C32c, Drowning related out-of-hospital cardiac arrests: Characteristics and outcomes, Dyson, Morgans, Bray, Matthews & Smith, (2013), page 1116

²¹⁴ Exhibit C33, page 17

²¹⁵ Elected to fellowship in 1990

²¹⁶ Exhibit C32a

²¹⁷ Transcript, page 753

'The obvious response is that with your head under water you tend to hold your breath to not get water in your airways, but eventually the carbon dioxide in your body increases to a level that triggers you breathing whether you want to or not. It's a reflex thing that your brain just does. When water enters your airway a couple of things happen. There's a tendency to want to cough to get it out of your airway, but particularly it's thought that the main problem is what's called laryngospasm. The larynx sits right behind your Adam's apple in your neck, and it's a series of muscles. They help you to talk but they also will close off the airway to protect it, and it's thought that spasm of those muscles in response to water is the main initial problem and that that can't be overcome just by you trying to undo it. It's a bodily reflex that can't be undone, and that results in inability to breathe but also inability to speak or call out, and obviously the oxygen level in the body decreases because you're not getting any more oxygen, and the more you panic the faster the rate of that decrease in oxygen because your metabolism increases. Eventually the low oxygen level can result in loss of consciousness, but it's after a period of time. Eventually the laryngospasm does subside but after the level of oxygen gets low enough that the muscles basically just give up. At which stage water enters the lungs. It fills the lungs so that air can't get in to be absorbed, but also causes inflammation and damage to the lungs.'²¹⁸

- 10.4. Professor Kelly stated that the period of time from onset of laryngospasm to unconsciousness could happen within a minute, but was very variable depending on the individual and the event of panic. She also questioned whether the reported minute between Ms Chua being observed swimming happily and being found unconscious (evidence of Mr Hamood-Smith) was an accurate timeframe, given the elasticity of time in an emergency.²¹⁹ Professor Kelly agreed with the expert report of Dr Lippmann, that the most likely mechanism causing Ms Chua to drown was water entering her airway which caused a laryngospasm. This would have prevented Ms Chua from calling or yelling out to attract attention.
- 10.5. In the context of the time it took for Ms Chua to first experience difficulty and to then become unconscious, Professor Kelly was asked to comment on the observations of Mrs Ledger, namely the appearance of a blueish colour to Ms Chua's lips (cyanosis) and a greyish colour to her face.²²⁰ Professor Kelly was not able to provide a specific timeframe in which Ms Chua might have been experiencing difficulty in the water before she was found, as she said it was difficult to predict how quickly oxygen saturations might fall in a particular individual to produce the lip and face discolouration as described by Mrs Ledger. Professor Kelly was however able to give a more definitive answer about Ms Chua's state of arrest when Mrs Ledger was unable

²¹⁸ Transcript, page 753

²¹⁹ Transcript, page 755

²²⁰ Transcript, page 107

to find a carotid pulse. She told the Court that, based on the account of Mrs Ledger, an experienced nurse, it was most likely that Ms Chua was in a combined cardiorespiratory arrest, as opposed to respiratory arrest, when found unresponsive in the water.²²¹ If Ms Chua was in respiratory arrest only, the presence of a pulse would be expected.

10.6. Ms Chua's state of arrest was relevant to the observations made after resuscitation efforts had commenced on the muster rock. As detailed above, a number of witnesses involved in CPR noticed Ms Chua to cough, splutter and flicker her eyelids momentarily, at which time Mrs Ledger thought she felt a slight pulse.²²² Professor Kelly was of the view that there were two plausible explanations for this event. The first was that Ms Chua experienced a brief return of circulation which returned to cardiac arrest. She explained that this was quite a common event in cardiac arrest. The second explanation was that this was an episode of agonal breathing, reflex breathing in the process of death and that the pulse Mrs Ledger thought she felt was not actually there.²²³ Professor Kelly stated that feeling a weak pulse when it was not actually present was something that was not uncommon in emergency situations and was an accepted phenomena amongst practitioners. Taking into account the evidence of Professor Ledger, that his view the spluttering was more likely agonal breathing than a return of circulation,²²⁴ Professor Kelly agreed that this was the more likely of the two possibilities, particularly given the resuscitation efforts at the muster rock took place on an unstable surface and was unlikely to have been effective.²²⁵ Based on the differing accounts of the participants who made this observation, I am unable to make a finding as to whether Ms Chua experienced a return of circulation or whether it was an agonal reflex.

10.7. Another important topic that was canvassed during Professor Kelly's evidence was the absence of both supplemental oxygen and an AED on board the Adventure Lady and whether either or both items of equipment could have been used effectively in Ms Chua's resuscitation. Professor Kelly was somewhat ambivalent about the use of an AED in drowning incidents for two reasons. Firstly, she was of the view that in a primary drowning event, an AED was of little use due to the unlikely event of the heart having a shockable rhythm (only 6-8% of drowning victims are found with an initial

²²¹ Transcript, page 759

²²² Transcript, page 108

²²³ Transcript, page 759

²²⁴ Transcript, page 65

²²⁵ Transcript, page 761

shockable rhythm).²²⁶ In her opinion, an AED was of more practical use in a primary cardiac event, where shockable rhythm was detected. She told the Court that in the event of an arrest from a cardiac cause, the chances of survival were substantially better as long as severe lung damage from the water had not occurred. Secondly, Professor Kelly also raised concerns about the use of an AED in an area where there was likely to be wet surfaces.

- 10.8. As touched on above, Professor Kelly's evidence on the efficacy of supplemental oxygen was particularly compelling. However, she further explained:

‘As we’ve talked about once water enters the lungs there are a number of problems one of which is with gas exchange, so with the oxygen getting through the lung into the tissue and the higher the amount of - sorry, I’ll go back a step. Air has about 21% oxygen and an oxygen cylinder can deliver much higher levels of oxygen than that and the higher the level of the oxygen in the little air sacs in the lung the more the force pushes it into the body. So in situations where the lungs aren’t working effectively giving additional oxygen helps oxygen get from the poorly functioning lungs into the body. So yes, it would have improved [Ms Chua’s] chances.’²²⁷

Professor Kelly believed that in Ms Chua's case supplemental oxygen would have been of more assistance than an AED.

- 10.9. Dealing finally with preventability of death after Ms Chua was found non-responsive, Professor Kelly made it plain in her oral evidence that the probability of survival from drowning in the adult cohort is low, with the mortality rate in excess of 80%.²²⁸ Impacting on this already high mortality rate was the delay in moving Ms Chua to the boat for CPR to be undertaken on a hard surface. As detailed above, the chest compressions delivered while Ms Chua was being held up by four participants at the muster point rock continued for approximately 10 to 15 minutes until a decision was made to swim her to the boat where CPR continued on a hard surface. While valiant, these efforts were most likely ineffective from a resuscitation perspective.
- 10.10. Professor Kelly drew the Court's attention to the Australian Committee on Resuscitation's (ANZCOR) Guidelines²²⁹ relating to resuscitation in drowning. The

²²⁶ Transcript, page 787

²²⁷ Transcript, page 767

²²⁸ Transcript, page 766

²²⁹ Exhibit C32b, ANZCOR Guideline 9.3.2 – Resuscitation in drowning, November 2021

Court heard that this guideline is widely accepted across Australia and New Zealand and is regarded as preeminent. At 4.7 of the ANZCOR guidelines, it states:

‘... remove the person from the water as soon as possible. Only deliver in water resuscitation if trained to do so and immediate removal from the water is delayed or impossible. Rescue breaths in deep water requires a highly trained rescuer and a flotation aid. Chest compressions are ineffective in water and should never be attempted.’²³⁰

10.11. Professor Kelly gave this evidence on the topic of effective CPR:

‘The overwhelming weight of the guidelines and expert opinion in the literature [in the case of drowning] is that people should be removed from the water on to a surface where effective CPR can be applied as soon as possible ... It is a waste of time doing something that doesn’t work. And the logic behind it is it shouldn’t distract from trying to get someone into a situation where you can give effective resuscitation.’²³¹

10.12. I understood Professor Kelly’s evidence to be that had Ms Chua been transported to a hard surface within two or three minutes of being found unresponsive, her chances of survival would have significantly increased. However, even this event would not have raised the prospect of Ms Chua’s survival to meet the requisite standard of proof in this jurisdiction, on the balance of probabilities. She said, *‘it’s still unlikely that she would have survived, [but] it is more likely’*.²³² I accept Professor Kelly’s evidence in its entirety and find that Ms Chua’s best chance of survival was being retrieved back to the boat immediately upon being found unresponsive in the water. While I am not able to find that Ms Chua’s death was preventable on the balance of probabilities, had there been an emergency procedure in place requiring Ms Chua to be moved back to the boat immediately upon her being found unresponsive, it is possible that her death might have been prevented. I am not able to elevate it more highly than this.

11. Conclusions

11.1. At the end of the evidence I heard oral submissions and received written submissions concerning the correct assessment of the evidence and what findings and recommendations were appropriate from interested parties. All final submissions were an important part of the Inquest. I gave them careful consideration before making any decision about the evidence and in deciding my findings and recommendations.

²³⁰ Exhibit C32b, ANZCOR Guideline 9.3.2 – Resuscitation in drowning, November 2021, page 6

²³¹ Transcript, pages 761, 763

²³² Transcript, page 778

11.2. The findings I have made are set out in accordance with the issues above. I have come to these conclusions on the basis that I am comfortably satisfied each of them were established on the evidence.

1. On 28 December 2017, Ms Ardebby Chua and her brother and sister participated in a tour run by Adventure Bay Charters involving swimming and snorkelling around Blyth Island.
2. Ms Chua did not have any snorkelling experience but had undertaken swimming lessons as a child.
3. Pre-dive interviews were conducted with the participants of the tour as to their swimming and snorkelling abilities. No information of this nature had been obtained from the tour participants prior to the tour commencing. This was a missed opportunity to have mitigated the risk during the swim, particularly for the low-ability swimmers.
4. Ms Chua and her family were identified as low-ability swimmers prior to entering the water.
5. Ms Chua was provided with a full-length 4 mm wetsuit, diving mask, snorkel and flippers. She was also provided with a red pool noodle. All equipment supplied to Ms Chua was in good working order. The wetsuit and the pool noodle provided Ms Chua with a level of positive buoyancy.
6. Upon arriving at the destination of Blyth Island, Mr Matthew Waller, the owner/operator of Adventure Bay Charters and the Captain of the Adventure Lady, observed that his preferred site of mooring was unsuitable due to the presence of tidal ripples on the sand bank. Accordingly, he moored at a different site which was outside the permitted area. This was an appropriate decision by Mr Waller, based on the risk that the current posed to the low-ability swimmers.
7. Mr Waller was unaware that his chosen mooring site was outside the permit zone, believing the restriction applied only to the distance from the Island itself. The issue of mooring outside the permit zone did not impact on the cause or circumstances of Ms Chua's death.

8. After the boat was moored, Mr Waller provided a safety briefing to the participants. This briefing was perfunctory and focused on practical matters such as interactions with the sea lions and where not to swim in accordance with the permit. It was not tailored to address safety issues for those who lacked swimming ability and confidence in the water.
9. The snorkelling demonstrations provided by crew to the low-ability swimmers were inadequate, both in how to clear the water from the snorkel and mask and the demonstrations taking place in deeper water.
10. Buoyancy vests compatible with the activity of snorkelling should have been made available for the low-ability swimmers and any other participants who requested them.
11. The supervision of the participants in the water was not unreasonable given that half the group were competent swimmers and the addition of Mr Nguyen as an in-water observer.
12. Ms Chua experienced difficulties with her mask and snorkel at various times throughout the swim.
13. Ms Chua was supported in the water by Mr Waller at the beginning of the swim and then Mr Hamood-Smith towards the end of the swim.
14. Mr Hamood-Smith was the last crew member to witness Ms Chua in the water swimming prior to being found unresponsive.
15. A period of between two to three minutes passed between Mr Hamood-Smith observing Ms Chua and her being found by Mr Nguyen face down in the water, unresponsive.
16. At the time of being found unresponsive, Ms Chua's snorkel was no longer in her mouth, but her face mask was in situ.
17. Upon discovering Ms Chua, Mr Nguyen called out '*Emergency*' and Mr Hamood-Smith and Mr Waller swam to assist Ms Chua. Mr Hamood-Smith or Mr Waller removed Ms Chua's face mask.
18. The timing of this discovery was between 10:38am and 10:47am.

19. The crew's response to Mr Nguyen's emergency call was swift.
20. Ms Chua was then swum back to the muster rock where resuscitation efforts were directed by Mrs Ledger, a retired respiratory nurse and her family. It was appropriate for Ms Chua to be retrieved to the muster rock and not the beach as the muster rock was closer.
21. Mr Hamood-Smith swam back to the Adventure Lady and registered a Mayday call. This was made at 10:52am.
22. Ms Chua was supported by a number of the participants holding her body above the water on the muster rock in an attempt to provide a stable surface for CPR. This saw ineffective resuscitation efforts take place.
23. Ms Chua was seen to cough and splutter and flicker her eyelids momentarily while receiving CPR on the muster rock. Resuscitation efforts continued for a further period on the muster rock after this occurred.
24. A surfboard or backboard would have assisted in retrieving Ms Chua back to the boat more quickly than she was. One was not available.
25. The time between Ms Chua being found unresponsive and being retrieved to the boat was between 18 and 30 minutes.
26. Upon being found unresponsive, Ms Chua should have been retrieved immediately back to the boat, where effective resuscitation could be attempted. This would have improved her chances of survival.
27. The absence of a practised drill for the event of a drowning with a suitable in-water rescue procedure, in the Safety Management System document, contributed to the extended delay in commencing effective resuscitation on board the boat.
28. The failure of the Adventure Lady to include supplemental oxygen as part of their first aid equipment, irrespective of its mandate by AMSA, decreased Ms Chua's chances of survival.
29. The absence of an AED on the Adventure Lady did not directly impact on the cause and circumstances of Ms Chua's death.

30. Ms Chua's life was pronounced extinct at 12:30pm on 28 December 2017.
31. Ms Chua's cause of death was salt water drowning. The mechanism of drowning was laryngospasm after aspiration of water.
32. Ms Chua's death was not preventable on the balance of probabilities. However it is important to acknowledge that had Ms Chua been retrieved to the boat within a few minutes of being found unresponsive, her death may have been prevented.

12. **Recommendations**

- 12.1. Pursuant to section 25(2) of the Coroners Act 2003 I am empowered to make recommendations that in the opinion of the Court might prevent, or reduce the likelihood of, a recurrence of an event similar to the event that was the subject of the Inquest.
- 12.2. I have found that an Automated External Defibrillator would not have altered the outcome in Ms Chua's case given her cause of death. I do however remind myself of the obligation in an Inquest to '*inquire into all facts which may have operated to cause the death of the deceased and as well to inquire into the wider circumstances surrounding the death of the deceased*'.²³³
- 12.3. South Australia's recreational snorkelling industry is not formally regulated, unlike the industry in Queensland. The SAPOL investigating officer, Detective Heading, in his report, suggested that South Australia give consideration to adopting similar regulations as outlined in the *Safety in Recreational Water Activities Act 2011* and the *Recreational Technical Diving and Snorkelling Code of Practice 2018* for the regulation of South Australian tour operators conducting guided snorkelling activities.
- 12.4. Dr Lippmann was asked whether the introduction of legislation, regulations and a code of practice in Queensland positively impacted on the industry. He opined that it had improved the standard of practice in Queensland and laid down relatively clear guidelines for commercial operators about appropriate procedures, practices and equipment. This increased awareness and education about risk mitigation strategies. It

²³³ WRB Transport and others v Chivell [1998] SASC 7002 at paragraph 31 per Lander J

was enforced by compliance checks and fines/prosecution where significant non-compliance was found.

- 12.5. Dr Lippmann was of the view that such a level of regulation was unnecessary in South Australia, as the industry is much smaller. He also expressed concern that regulating the industry could prove prohibitively expensive. However, he was complimentary of the *SafeWork SA Snorkel Guide* introduced in 2020 which was developed in Queensland and re-worked for South Australia.²³⁴ Dr Lippmann indicated that if this document was well distributed in the industry, it would likely carry influence and provide clarity to operators on the expectations of SafeWork in the event of an incident investigation or periodic inspection.
- 12.6. Finally, Dr Lippmann was of the view that the resuscitation equipment and first aid supplies on the *Adventure Lady* were inadequate. In addition to the Scale F medical kit, which was in place at the time of Ms Chua's death, an oxygen first aid unit and an AED should be carried. Dr Lippmann expressed the opinion that oxygen first aid units and AED be mandated for businesses operating commercial snorkelling tours in South Australia. While I acknowledge the submissions filed on behalf of SafeWork SA dated 19 July 2023, in particular in response to Proposed Recommendation 1, I accept Dr Lippmann's evidence in its entirety.
- 12.7. I therefore make the following recommendations directed to the Minister for Recreation, Sport and Racing.
- 12.7.1. That the carriage of oxygen should be mandatory for persons operating commercial snorkelling tours.
- 12.7.2. That the carriage of an Automated External Defibrillator should be mandatory for persons operating commercial snorkelling tours.
- 12.7.3. That SafeWork SA conduct an audit of snorkelling tours in South Australia and report to the Coroners Court on its findings.
- 12.7.4. That SafeWork SA advise the Coroner of the extent to which operators within South Australia are compliant with the *SafeWork SA Snorkel Safety*

²³⁴ [SafeWork SA Snorkel Safety Guide](#)

Guidelines and whether SafeWork SA are of the view that the current legislation allows them to enforce any incidence of non-compliance.

12.7.5. That persons operating commercial snorkelling tours consider the purchase and placement of defibrillators within their workplaces where patrons are undertaking snorkelling activities.

12.8. I make the following recommendation directed to the Attorney-General.

12.8.1. That legislation be introduced requiring all businesses conducting snorkelling activities to carry an emergency oxygen unit as part of their first aid supplies and that operators ensure that there is always a member of staff available who is appropriately trained to administer oxygen.

12.8.2. That legislation be introduced requiring all businesses conducting snorkelling activities to carry an Automated External Defibrillator.

13. Acknowledgments

13.1. I acknowledge the valuable and expert assistance provided to me by special counsel, Ms Emma Roper, in the preparation and hearing of this Inquest.

13.2. I acknowledge the comprehensive investigation conducted by Detective Brevet Sergeant Mark Heading, and his assistance throughout the Inquest proper.

13.3. I convey my sincere condolences to Ms Zsyivette Chua, Mr Peatruvanni Chua and their parents, Peter and Theresa Chua.

Key Words: Drowning; Personal Flotation Devices; Snorkelling

In witness whereof the said Coroner has hereunto set and subscribed her hand and

Seal the 23rd day of January, 2024.

Coroner