



Western

Australia

RECORD OF INVESTIGATION INTO DEATH

Ref No:44/17

*I, Evelyn Felicia Vicker, Deputy State Coroner, having investigated the death of **Chunjun LI** and the suspected death of **Jiaolong ZHANG** with an Inquest held at Albany Coroners Court, 184 Stirling Terrace, Albany, on 20-23 November 2017 find:*

- 1. the identity of the deceased was **Chunjun LI** and that death occurred on 18 April 2015 in the sea off Salmon Holes, Salmon Holes Road, Torndirrup National Park, Torndirrup, Albany, and was consistent with drowning; and*
- 2. the death of **Jiaolong ZHANG** has been established beyond all reasonable doubt and the identity of the deceased was **Jiaolong ZHANG** and that death occurred on 18 April 2015 in the sea off Salmon Holes, Salmon Holes Road, Torndirrup National Park, Torndirrup, Albany, and was likely due to drowning,*

in the following circumstances;-

Counsel Appearing:

Sergeant L Housiaux assisted the Deputy State Coroner

Mr J Carroll (State Solicitor's Office) appeared for the Department of Biodiversity, Conservation and Attractions, (then the Department of Parks and Wildlife) (the Department).

Table of Contents

INTRODUCTION	2
BACKGROUND	6
Mr Chunjun Li	6
Mr Jiaolong Zhang	7
The Salmon Holes	7
Rescue Groups	14
SATURDAY 18 APRIL 2015	15
First Responders	24
Search	31
POST MORTEM EXAMINATION OF MR LI	39
Potential for the Survival of Mr Zhang	40
Evidence of Dr Luckin – How People Drown	41
• Respiratory Responses	42
• Cardiovascular Responses	43
• Psychological Responses	44
CAUSE AND MANNER OF DEATH – MR LI	50
DETERMINATION OF THE DEATH OF, CAUSE AND MANNER OF DEATH – MR ZHANG	52
SAFETY CONSIDERATIONS WITH RESPECT TO THE DEATHS OF MR LI AND MR ZHANG	54
Signs and Education	58
Life Jackets	59
Communication	61
Drones	62
Completion of Area Specific Surveys	64
RECOMMENDATIONS.....	65
Recommendation No. 1	67
Recommendation No. 2	67
Recommendation No. 3	67
Recommendation No. 4	68
Recommendation No. 5	68
CONCLUSION AND COMMENDATION	68

INTRODUCTION

On 18 April 2015 Chunjun Li (Mr Li) and Jiaolong Zhang (Mr Zhang) were at the Salmon Holes in Torndirrup National Park to fish for salmon. The ocean conditions at the time were described as “*particularly rough*” and “*massive*” with a reference to the swell. Neither man was wearing a life jacket, but they tied themselves to a rock with rope.

Shortly after they commenced fishing a series of waves of increasing strength swept against the rocks with one breaking behind the two fishermen. They were both swept into the sea and under the water.

Mr Li surfaced and was washed towards the beach. He was recovered from the water and resuscitation was commenced by bystanders. He did not revive.

It is not clear whether Mr Zhang resurfaced, but it was initially believed his body was swept further out to sea due to clothing seen in the water. Mr Zhang's body was never recovered despite an extensive land, sea and air search in improving conditions.

Mr Li was 42 years of age in 2015.

Mr Zhang was 38 years of age in 2015.

Pursuant to section 19 (1) of the *Coroners Act 1996* (WA) (the Act) a coroner has jurisdiction to investigate a death if it appears the death is, or may be, a reportable death (section 3). A death is defined in section 3 to include a "suspected death".

Section 22 (2) of the Act permits a coroner who has jurisdiction to investigate a death to hold an inquest if the coroner believes it is desirable. In addition, pursuant to section 23 (1) and (2) the State Coroner may order an investigation into a suspected death if there are reasonable grounds to believe the suspected death was a reportable death.

Once the State Coroner has issued such an instruction there is a requirement an inquest be held into the suspected

death to enable a coroner to determine whether the death of the missing person has been proved beyond all reasonable doubt, and if possible the circumstances of the death and the manner and cause of death sufficient for the provisions of section 25 (1) to be fulfilled.

The death of Mr Li was a reportable death and was reported to the State Coroner by police. The circumstances of the suspected death of Mr Zhang are very similar to those of Mr Li, and the police investigation into both deaths indicated it was likely Mr Zhang's death was a reportable death. A decision was made to hold an inquest into the death of Mr Li and the suspected death of Mr Zhang in the one inquest (section 40) to determine the death of Mr Zhang and the circumstances of both deaths.

The issues addressed in the course of the inquest were:

- whether the death of Mr Zhang had been established beyond all reasonable doubt;
- the circumstances of both deaths; and
- the issue of public safety where rock fishermen experience difficulties while rock fishing and they, rescuers and first responders are inevitably exposed to a range of dangers in any attempted rescue.

Those safety issues were largely around the wearing of life jackets when rock fishing and the potential for personal Emergency Positioning Indicator Rescue Beacons (EPIRBs), to assist with recovering both survivors and deceased, the

tensions surrounding the provision of rock anchor points by the Department of Biodiversity, Conservation and Attractions (at the time Department of Parks and Wildlife) to be referred to as the 'Department', the use of drones in search and rescue (SAR) and, in the specific location of the Salmon Holes, radio and/or digital communication.

The dangers related to rock fishing have been the subject of intense public awareness campaigns in Western Australia by both Recfishwest and the Department.

There have been similar campaigns in New South Wales, South Australia and Tasmania by National fishing bodies. New South Wales has also conducted a number of joint inquests into rock fishing deaths.¹

The evidence during the course of the inquest comprised two volumes containing the statements of people witnessing the events on 18 April 2015, those involved in the search and rescue attempts, the reports of various organisations involved with both the management of locations, and search and rescue missions and expert witnesses to provide a context for some of the safety issues. In addition oral evidence was heard from two of the expert witnesses, Dr Paul Luckin, a specialist Anaesthetist with a special interest in survival physiology, and Dr Barbara Cook, a Conservation, Biodiversity and Systematics researcher at

¹ Finding of NSW Deputy State Coroner, Magistrate Forbes delivered 2.7.2015 being the most recent to these deaths.

the University of Western Australia Centre of Excellence in Natural Resource Management, as well as a number of civilian witnesses and first responding rescuers.

The evidence of all expert witnesses and the reports of the numerous organisations involved in any search and rescue was also relevant to the circumstances of another death at the Salmon Holes in the year following that of Mr Li and Mr Zhang and an inquest into the death of Ali Mohammad Soltani on 26 April 2016 was held in the same week as that of Mr Li and Mr Zhang to assist in the hearing of evidence relevant to all three deaths.

BACKGROUND

Mr Chunjun Li

Mr Li was born in China and moved to Western Australia in approximately 2007. His father still resides in China and at the time of his son's death was staying with Mr Li in Western Australia on holiday. Mr Li's father (Mr Li Snr) described him as having a limited understanding of English, with only being able to read, write and comprehend basic words. Mr Li Snr believed his son was a strong swimmer and outlined that Mr Li had been fishing at the Salmon Holes for over 5 years.² Mr Li lived in Cloverdale with his wife and, at least, a daughter who had completed her education in Australia.

² Ex 1, tab 16 & 17

Mr Jiaolong Zhang

Mr Zhang was also born in China and moved to Western Australia in 2008 with his wife and one young child. Mr Zhang was able to read and write in English and had a reasonable understanding of the language. Mr Zhang's father-in-law, Shi Kui Wang, described Mr Zhang as not being a very good swimmer, although he had rock fished a few times before going to the Salmon Holes in April 2015. He had never fished at the Salmon Holes before.

Mr Zhang was an Australian citizen, lived in Rivervale and was employed as a welder.³

Mr Li Snr and Mr Wang described Mr Li and Mr Zhang as friends and both of the older men were visiting Perth, on holiday from their homes in China.

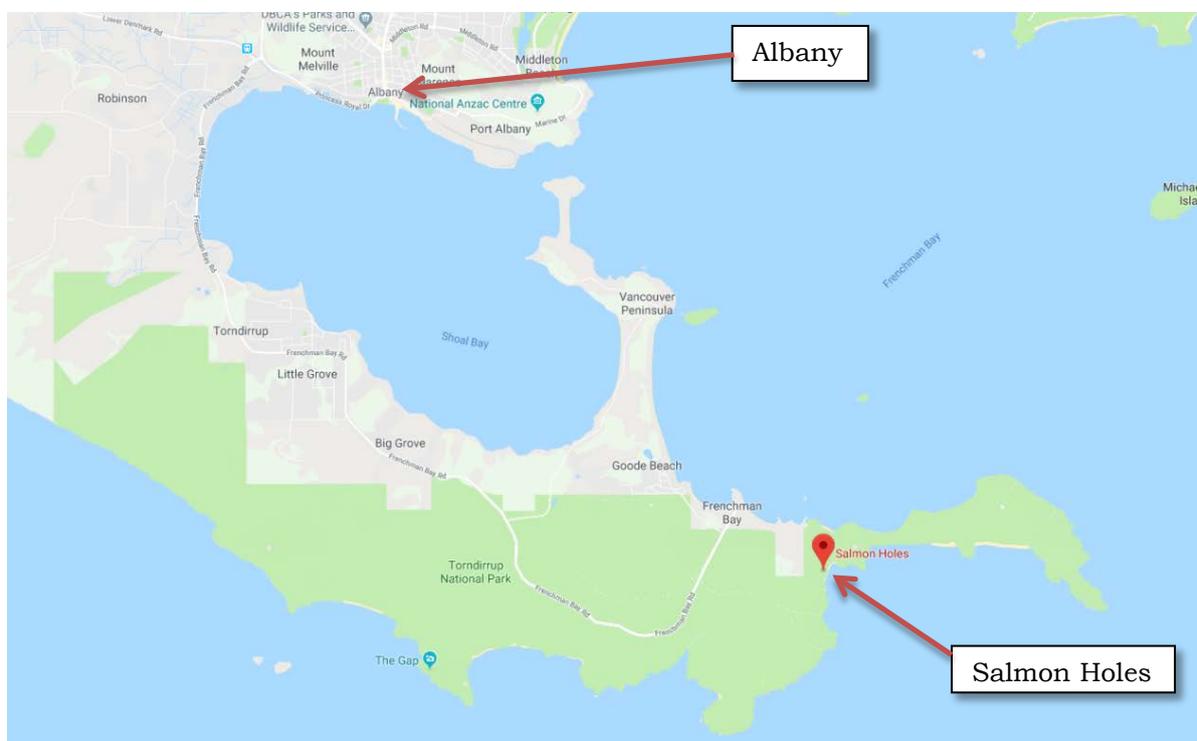
The Salmon Holes

The Salmon Holes is a beach location in the Torndirrup National Park on the southern coast of Western Australia, approximately 19 km south of the Albany CBD.⁴ It is comprised of a white sandy beach surrounded by lime stone cliffs and granite headlands which are subjected to the full force of the southern ocean. It is accessed by a paved road which leads to a car park, elevated above the beach, and access down to the beach is by a staircase which has a lookout with a good view over the area. The beach runs

³ Ex 1, tab 18

⁴ Ex 1, tab 3, pg 13

roughly north east to south west. The headland to the north east of the beach was the one from which the two deceased were fishing prior to their deaths.



Google Map – Depicting Salmon Holes Location

The Torndirrup National Park is managed by the Department as a conservation reserve protecting Western Australia’s native animals and plants. The Salmon Holes is a recreational site within the National Park and requires the Department to balance the demands of access and enjoyment of lands and waters in the National Park with requirements for visitor safety and the need to ensure the relative risks are managed in a reasonable and practicable way.⁵

⁵ Ex 2, tab 2



Exhibit 1, Volume 1, Tab 20, Page 3 – Salmon Holes Beach

It is generally recognised rock fishing is intrinsically dangerous due to the locations from which fishermen choose to fish.⁶

The coastline of the Torndirrup National Park and Salmon Holes specifically, experiences strong currents, undertow and rocky outcroppings beneath the surface of the water. The headlands generally plunge straight into deep water which is very rough due to the interaction of the ocean swell with the vertical surfaces.

⁶ Ex 2, tab 1

Aside from the topography being dangerous, there is added difficulty with the remoteness of the location hindering the timeliness of assistance in the event of any serious life threatening event. Inevitably persons suffering injury or accident will have to rely on their own safety precautions, and the ability of those in their immediate environment in the event of mishap.

The area's geographical remoteness and beauty attract recreational visitors of all sorts, but it is a particularly popular spot for fishing salmon which tend to be abundant, depending on conditions, around the Easter holiday.⁷ Salmon can be caught from both the beach and the headlands and it has become an attractive location for people travelling from Perth with a wish to rock fish. It is fished by locals, West Australians, tourists and people from all ethnicities.

The Department has attempted to emphasise the dangers associated with rock fishing, both by way of education on its websites, reflected in the websites of many recreational bodies, as well as the use of extensive signage in numerous locations from the access road, car park, access to the beach and locations along the coast. These signs, while predominantly in English at the Salmon Holes also contain pictorial representations of the dangers.

⁷ Ex 1, tab 20

Information on the numerous websites related to fishing, rock fishing and safety aspects are frequently in multiple languages, particularly a range of Asian languages. Despite data indicating fishing from beaches is as successful as fishing from rocks, there appears to be a preference for fishers to fish from the rocks, despite an awareness of the danger of falls.

The Department has provided anchor points at some of the more dangerous locations which have recorded a number of deaths. Mr Phillips, on behalf of the Department, indicated the provision of anchor points has caused a great deal of controversy with a concern the Department may be perceived as encouraging a dangerous activity. Experience has shown people rock fish regardless of the danger to themselves and provision of anchor points was seen as the safer option, without undue defacement of a natural asset.

The people who used the anchor points, as reflected by witnesses in this inquest, tended to use the anchor points with good quality rope and effective harnesses. The aim appeared to be not falling into the ocean, rather than any concern about what would happen if they did fall into the water. Whether this acknowledged an awareness that being in the water below these locations was extremely dangerous is difficult to assess due to some conceptual difficulties with communicating with those who were prepared to give evidence.

Certainly in the event of a fisher falling into the ocean from a rock face there is the difficulty, firstly, of surviving the fall, secondly the lag time before any formal rescue could be implemented in the event immediate responders were not in a position to rescue a fisher, and thirdly survival time for a rescue to occur and communication issues due to the remoteness of the location and adequate satellite coverage.

In an attempt to ameliorate the risk of falls into the ocean, “Silent Sentries” have also been provided by the Department in addition to the anchor points. These are points at which life buoys and rings are available to be thrown to people in the water to help them survive. For these to be effective those in the water need to be in a fit state to reach and hold the buoys. Silent Sentries have been subjected to vandalism in some locations.

Another initiative funded and implemented nationally by organisations such as Volunteer Marine Rescue Groups (VMR) and Recfishwest has also seen the provision of “*free for hire*” life jackets available from bait and tackle shops located near to popular fishing spots. Mr Allan, the proprietor of Albany Rod and Tackle, advised the court that despite signs offering free life jackets, they were very rarely utilised.⁸ The concept was originally launched as a result of the Nathan Drew Foundation, when a local man drowned without a life jacket.⁹

⁸ t 23.11.17, p223-225

⁹ t 24.10.17, p51

Precise statistics for the number of deaths at the Salmon Holes vary slightly between organisations. Pre 2015 police and Departmental records indicate 12 deaths in 9 incidents between 1974 and 2013,¹⁰ while University of Western Australia (UWA) records pose “*that 15 fishers have lost their lives while fishing at the Salmon Holes in the Torndirrup National Park near Albany*”,¹¹ without any dates.

The National Coronial Information System (NCIS) recorded 21 deaths in Western Australia, while rock fishing, from 2004 – 2016. This figure did not include the deaths of Mr Li and Mr Zhang which had not been determined at that time.¹²

The number of deaths specifically related to rock fishing recorded for the Salmon Holes, taking into account its remoteness and difficult access, prompted the instigation of a survey by UWA researchers in Easter 2015, two weekends before the deaths of Mr Li and Mr Zhang. This was also funded by not for profit organisations such as Recfishwest and VMR groups. The study, although not completed with additional follow-up, provided some useful beginnings in considering the differences in behaviours and attitudes towards safety amongst fishers at the Salmon Holes in an attempt to assess the most reasonable ways of persuading fishers to have some regard for their own safety when

¹⁰ Ex 1, tab 3

¹¹ Ex 1, tab 31

¹² Ex 1, tab 40

considering rock fishing in this particular environment.¹³ The danger or impact on would be rescuers were not canvased as part of that survey.

Rescue Groups

Submissions were also received from a number of organisations involved in search and rescue operations once a rock fisher had fallen into the ocean in the vicinity of the Salmon Holes. Aside from the psychological trauma for eye witnesses to these events, the emotional and financial cost to all participants in a rescue from the Salmon Holes, usually the recovery of bodies by the time responders were able to access the beach, was significant.

These groups included local WA Police personnel as well as Water Police, staff of the Department involved with the safety and management of these areas, the local St John Ambulance (SJA) personnel, Volunteer Marine Rescue (VMR) crews and the local State Emergency Services (SES) and Department of Fire and Emergency Services (DFES) representatives.¹⁴

All these organisations provide significant resources, both financially and personally in the attempt to recover persons ending up in the ocean alive, or their bodies for purposes of family spiritual wellbeing. Many of the people involved exposed themselves to danger and the risk of loss of life in

¹³ † 23.11.17, p207

¹⁴ Ex 1, tabs 37, 38, 39 & 41

their attempts to recover injured persons or deceased from the water.

These groups all have a particular interest in the safety of rock fishers because it directly relates to their own safety, both physical and emotionally, aside from the emotional and financial cost to the community as a whole.

SATURDAY 18 APRIL 2015

Information about when salmon are abundant is dispersed very quickly via social media and fishing sites. In 2015 salmon were known to be abundant following Easter weekend and by the weekend of 18 April 2015 many people were travelling from areas outside Albany to the Torndirrup National Park to fish for salmon. Enthusiasts had driven to the location the previous day and a number slept overnight in the car park to be on site for fishing in the early morning with first light.

Mr Li and Mr Zhang had left Perth at 2.00 am on the morning of 18 April 2015 to drive down to the Salmon Holes.¹⁵ Mr Li and Mr Zhang travelled with Mr Li Snr and Mr Wang. They arrived at the Salmon Holes at approximately 7.00 am and unloaded their fishing gear from the car. It is clear their intention was to rock fish, and they did not wear life jackets.¹⁶

¹⁵ Ex 1, tab 18

¹⁶ Ex 1, tab 16 & 18

By the time they arrived there were already a number of people fishing on the rocks.¹⁷ According to Hau Pam Pau Laiteng the conditions on the beach became quite crowded and he believed it was easier to catch fish from the rocks, while agreeing it was very dangerous.¹⁸

Mr Laiteng is from Burma and explained he had been fishing at the Salmon Holes before. As time progressed he had increased his safety consciousness from nothing to properly tensioned ropes and a safety harness. Mr Laiteng attached himself to the rock face by use of the highest anchor point he could find because he agreed the conditions that day were very dangerous. Mr Laiteng did not believe wearing life jackets would have been of use in the conditions on that day. He considered the wearing of a safety harness with appropriately tensioned ropes and being conscious of one's own safety by moving away from water over the rock face were the appropriate safety considerations.¹⁹

Others had also driven to the location the previous day but on observing conditions on the morning of Saturday 18th decided it was too dangerous to go onto the rocks to fish, although there were 13 or 14 people already on the rocks fishing by about 6.00 am.²⁰ Jeremy Broedelet had arrived at the Salmon Holes before the sun was up at 5.30 am. Mr Broedelet began to fish for salmon in the south eastern

¹⁷ Ex 1, tab 9

¹⁸ t 12.11.17, p122

¹⁹ t 12.11.17, p126

²⁰ Ex 1, tab 12

corner of the beach, next to those rocks rather than from the rocks themselves.²¹ Everybody described the conditions on the rocks as being dangerous due to the waves which were “*very big*”.²²

Mr Li Snr described that following removing their equipment from the car and setting up on the rocks, he had to go back to the car to collect something he had forgotten while the others continued to set up.²³

Mr Wang described the four of them setting up their fishing gear. He explained he had not noticed any signs about the dangers of fishing from the rocks and he commented he would not be able to read them because he could not read English.²⁴ Mr Wang described that Mr Li and Mr Zhang had a rope each, which they tied around their waists with the other end tied around a large rock. They did not use the anchor points set in the rocks. Mr Wang was further from the water on a higher rock than his son-in-law, Mr Zhang, and Mr Li. Mr Wang described Mr Zhang as wearing a yellow rain coat and that Mr Li and Mr Zhang were approximately 5-6 metres from the water when they started to fish. Mr Wang believed the waves were about 2 metres and he was concerned at the height of the waves.

²¹ Ex 1, tab 11

²² Ex 1, tab 12

²³ Ex 1, tab 16

²⁴ Ex 1, tab 18

Both Mr Li Snr and Mr Wang confirmed that Mr Li and Mr Zhang had only been fishing for a very short period of time before they were swept from the rocks into the ocean.

Mr Laiteng described a series of waves shortly after 7.00 am, once Mr Li and Mr Zhang were set up for their fishing, which were taller than prior waves had been. Mr Laiteng was higher up the rock face and when the first wave broke he became very scared and asked his friends to go up further and leave the area. They all moved back and there were another two waves following the first wave that came even further up the rock face.

It was the final wave, which had broken over the rocks and plunged through a gap behind the two fishermen that swept them from the rocks from behind.²⁵ Mr Laiteng noticed a rope the two men had used had become dislodged from the rock. He saw both men swept into the water under the rocks and there was a period of time before one of the men surfaced. I am satisfied it was Mr Li who surfaced at that point.

Another fisher, Chuangui Liu, also described the conditions as very dangerous and stated he wore a harness and tied himself to the highest rock anchor he could see before he started fishing. He deliberately chose a higher anchorage due to the ocean conditions. He did not wear a life jacket. Mr Liu observed another group on the rocks who had moved

²⁵ † 11.12.17, p125

further around on the rocks and he was in the process of moving to join them when he heard some yelling.²⁶ When he looked up he saw a man in the water trying to swim in a “*breast stroke fashion*” towards the rocks.²⁷ Someone had thrown one of the orange life balls out to the swimming man. Mr Liu observed the person in the water could not reach the ball. Mr Liu then moved from the rocks down onto the beach.²⁸

Wentong Xing had also driven down to Albany on Friday 17 April 2015 to fish at the Salmon Holes on Saturday 18 April. Mr Xing did not see anyone wearing a life jacket.²⁹ Mr Xing started fishing from the beach at approximately 6.00 am, but decided the waves were too rough and he and his group stopped fishing, although they were still on the beach at the time Mr Li and Mr Zhang were swept into the water.³⁰

Mr Xing stated he did not see Mr Zhang resurface but saw Mr Li in the water for about 5-10 minutes. He had thrown a rescue ball into the water, but the waves were very rough and took it away from the man in the water.³¹

Also on the beach that morning was Wayne Geall. Mr Geall was on holiday from Queensland with his family and had been at Salmon Holes the previous day with his children but not his wife. They decided to return to Salmon Holes on the

²⁶ † 22.11.17, p181

²⁷ Ex 1, tab 13

²⁸ † 22.11.17, p182

²⁹ † 22.11.17, p192

³⁰ Ex 1, tab 14

³¹ † 22.11.17, p191

Saturday with his wife so she could fish because they had such a good time.³²

Mr Geall described reaching Salmon Holes at approximately 7.00 am on 18 April 2015 and, as he looked out over the beach from the lookout, considered the swell to be massive.³³ Mr Geall and his family walked down to the beach and set up for salmon fishing from the beach. He noted people on the rocks fishing and, specifically, that two people were further down the rocks towards the water. They were approximately 150 metres from Mr Geall.

Mr Geall described the first wave he saw to hit the rocks where those two people were fishing. They did not move and he noted that seconds later a bigger wave hit the same rock from behind and washed over the rock, hitting the two fishermen from behind and knocking them down. Mr Geall saw them sliding down the rock face and trying to stop themselves from falling into the water.³⁴ He could not see their rope, but assumed they would be tied off and waited for the slack to catch them, but it did not happen and they continued down the rock face and into the water. Mr Geall saw another large wave hit them and Mr Geall did not see either of the men surface.³⁵

³² t 21.11.17, p74

³³ t 21.11.17, p73

³⁴ Ex 1, tab 22 (taken by a bystander), t 21.11.17, p73

³⁵ Ex 1, tab 10

Mr Geall and his son started walking down the beach towards the rocks to see if he could see either of the men and, a short while later, saw one of them floating face down approximately 100 metres off shore. Mr Geall watched the body wash towards the shore and, when it was about 20 metres from the shore, a wave pushed the person towards him. Mr Geall managed to wade in and hold onto some clothing.

In evidence, Mr Geall stated the conditions were extremely dangerous and in view of the fact he was there with his family he realistically should not have gone into the water and try to retrieve that person. He said the person's father was running around and very distressed and he felt he had to try and help rescue him.³⁶

Mr Geall described how he was nearly swept out to sea himself despite the fact he is a strong swimmer. The undercurrent was very strong and the beach at that point drops away quite steeply. He described how he ran down to the edge of the sand bank and timed it so that as the water drew back, he was able to grab the person while he hung onto the sand with his toes, trying to hold on to prevent himself from being washed away with the body. He stated *"the water wasn't – wasn't water, it was, like, turned up sand so it was – you couldn't really swim in it. It's because the current and everything was chopped so much on that*

³⁶ † 21.11.17, p76

day, it was just, like, sandy water. It was just – the sand was floating in the water.”³⁷

A number of other people who had been on the rocks or on the beach then came to help Mr Geall and between them they pulled the person, which turned out to be Mr Li, further up the beach to assess him. Mr Li had been virtually undressed by the force of the water and people on the beach attempted to resuscitate him.

Mr Laiteng attempted compressions on Mr Li after Mr Geall brought him out of the water, but believed he was dead and there was no further point in trying to revive him. Mr Laiteng made a telephone call to 000 and asked for help.³⁸

Mr Geall remained at the water’s edge and started looking for the other person. He estimated that a few moments later he saw a yellow rain coat floating in the water approximately 60 metres out. Mr Geall believed the body appeared lifeless and was washing in and out with the waves, but only came to within about 30 metres of the shore. At that point somebody attempted to get Mr Geall to go out again and retrieve the yellow rain coat, but Mr Geall was completely exhausted and knew it would be dangerous for him to attempt another rescue. Instead he watched where the rain coat floated when it disappeared behind some rocks. He

³⁷ † 21.11.17, p77

³⁸ Ex 1, tab 9

reported its location to police when they arrived. The last time Mr Geall had seen the rain coat it was approximately 200 metres off shore.³⁹

In evidence, Mr Geall described how extremely traumatic the whole situation had been for him and his family and he still needs counselling to deal with the incident.⁴⁰

When asked about the use of life jackets, Mr Geall commented the conditions that day were so bad he did not know whether either Mr Li or Mr Zhang would have survived had they worn life jackets. However, he was sure that retrieving Mr Li's body would have been much easier if Mr Li had been wearing a life jacket and had Mr Zhang been wearing a life jacket his body may well have been retrieved rather than disappearing.

Mr Geall also expressed his surprise at the difference in the water conditions from day to day at the Salmon Holes. On the Friday he had experienced a beautifully calm day which made it impossible to imagine the conditions with which they were confronted on the Saturday. Even so Mr Geall had noted someone made a mistake on the rocks the previous day in perfect conditions. That person had fallen but had been tied to the anchor points which saved them from falling into the water.⁴¹ Mr Geall commented that on the Saturday the weather conditions were such that when

³⁹ † 21.11.17, p78

⁴⁰ † 21.11.17, p78

⁴¹ † 21.11.17. p80

Mr Li and Mr Zhang slid into the water it was likely they were 20 feet underwater within less than a second.

It is not entirely clear to me Mr Zhang was still in the yellow rain coat when it was seen floating out to sea. I note Mr Li had been mostly undressed by the force of the waves and it is quite possible the yellow rain coat no longer contained Mr Zhang at the time it was seen floating off shore.

First Responders

The 000 call by Mr Laiteng was received at the State Police Operations Centre (POC) at 7.17 am on Saturday 18 April 2015. That call was on a mobile stating a man had gone into the water and was drowning. POC immediately put an emergency response into operation, part of which was to contact the local police and the Albany St John Ambulance Service. Under the *Emergency Management Act 2005* WAPol are the designated hazard Management Agency for Marine Search and Rescue (MAMSAR) incidents, and the local police station, in this case Albany, becomes responsible as the local Incident Controller. It is the Incident Controller's job to coordinate the emergency response.⁴²

It is the issue of being able to alert authorities which is the first communication hurdle. There was only patchy mobile coverage in the vicinity of Salmon Holes. There are now

⁴² Ex 1, tab 20

some emergency telephones in place but there is still erratic coverage.

The Albany Police Station Shift Supervisor at 7.17 am on 18 April 2015 was Sergeant Dave Murphy (Murphy) and he set about coordinating an appropriate response. At the time Constables Chantler (Chantler) and Gill (Gill) were on patrol in police vehicle LA103 and were tasked to attend Salmon Holes priority 2 (Life threatening incident, lights and sirens). Chantler and Gill were dispatched at 7.26 am and arrived at the Salmon Holes car park at 7.44 am. While they were on route Murphy communicated with the Albany Volunteer Marine Rescue (AVMR) and requested their support. He was also involved with calling additional police officers on duty to cope with other requirements needing police involvement. The water police were contacted and the whereabouts of the police helicopter and its availability to assist in any search ascertained.

When Chantler and Gill arrived at the car park their first contact was with Mr Geall. He told them what he had seen and done and the fact that one of the males, now known to be Mr Li, had been recovered while the other, Mr Zhang, had not been seen since the rain coat floated out of sight. Chantler stayed in the car park to coordinate communication while Gill went down onto the beach to assist with the situation there.

In evidence Chantler described the difficulty with communication between the various first responders on 18 April 2015. The police communication system is digital while rescue groups use VHF. This caused difficulty with coordination and required Chantler to contact Murphy in Albany to convey information via the radio VHF located in Albany Police Station to the AVMR now in the sea off the Salmon Holes.⁴³

Gill described the conditions on the beach as he ran down to the group of people surrounding Mr Li. He could see the swell was extremely large with a lot of chop and breaking waves “*it just looked treacherous*”.⁴⁴ He could see waves breaking over the rocks and considered any approach to the rocks would have been dangerous. Both Chantler and Gill fished at Salmon Holes, but neither of them fished from the rocks, and both of them believed the fishing to be just as rewarding from the beach.⁴⁵

Mr Li’s father was with the body of Mr Li and extremely distressed. All described Mr Li Snr as understandably being in shock.

Gill also described communication problems between the beach and Chantler in the car park. The police digital system wasn’t always effective and the two police officers were trying to coordinate appropriate resources to deal with

⁴³ † 20.11.17, p20 & † 21.11.17, p38

⁴⁴ † 20.11.17, p25

⁴⁵ † 20.11.17, p18 p26

the situation on the beach and relay information out to the AVMR boats looking for Mr Zhang. Gill believed that if either Mr Li or Mr Zhang had been wearing life jackets at the time they went into the water they would have significantly increased their chances of survival, and would have ensured recovery of both bodies despite the bad conditions.⁴⁶

The SJA Service in Albany had seven full time paramedics, two full time transport officers and 70 volunteers. On 18 April 2015 Michael Ficko was intending to finish his night shift at approximately 8.00 am when, at approximately 7.40 am he received a call from the State Operations Centre (SOC) to attend at the Salmon Holes due to an incident involving two people. He understood one person had been pulled out of the water but was unclear as to the status of the other. He also understood there was a language difficulty.⁴⁷

Mr Ficko had been employed by SJA WA since January 1997 and was a qualified registered nurse with other qualifications relating to his work with SJA. He had been a critical care paramedic on the RAC Helicopter in Perth, an industrial paramedic trainer and was a mentor and trainer to the volunteers in the Albany region.⁴⁸

⁴⁶ † 20.11.17, p27

⁴⁷ Ex 1, tab 35

⁴⁸ † 22.11.17, p140

In evidence Mr Ficko indicated incidents at the Salmon Holes were always stressful for SJA due to the remoteness of the area and difficulty with communication. Paramedics were often faced with the prospect that by the time they arrived at the Salmon Holes resuscitation efforts would be futile unless there had been prompt and competent recovery and resuscitation from the water prior to their arrival.⁴⁹ It was his habit to notify the sub centre manager of an incident at the Salmon Holes before he left the sub centre to ensure there would be back up in the event communication became an issue. Mr Ficko contacted Ms Stacey Abbott, station manager at Albany.⁵⁰

Mr Ficko and the volunteer arrived at the Salmon Holes car park at 7.55 am and were informed by the police there was one deceased person and a missing person. Mr Ficko commented he was “*dumbfounded*” as to the conditions at Salmon Holes and the number of people who had obviously been fishing.⁵¹ Mr Ficko checked Mr Li on the beach and at one point actually had to drag him further away from the water due to the conditions. He considered the conditions to be very dangerous for crew from the AVMR and described the stress in dealing with Mr Li Snr who was understandably in a state of shock. Mr Ficko also described his own distress at the situation on the beach with respect to the deceased and other fishers.

⁴⁹ † 22.11.17, p143

⁵⁰ Ex 1, tab 36

⁵¹ † 22.11.17, 142

Ms Abbott arrived at the Salmon Holes with an SJA volunteer at 8.08 am and was advised the paramedics from the initial ambulance were already in attendance on the beach with one deceased and the other patient was unlocated in the water. Ms Abbott went down onto the beach to assist the other paramedics. As she walked down to the beach she could see there was no CPR in progress which confirmed for her Mr Li was beyond help. Ms Abbott also expressed her shock at the conditions on the day and described the waves as coming close to where Mr Li was on the beach.

Ms Abbott and Mr Ficko conferred and due to the waves washing onto the beach decided they needed to remove Mr Li's body and transport it to the morgue as soon as possible. Ms Abbott could see the AVMR vessel out in the water looking for the other person and noted what was initially thought may be a body in the waves. A police officer went down to the waves to retrieve that item and it turned out to be a piece of clothing, not the missing person.⁵²

Ms Abbott described extreme concern for the rescue crews out on the water and Chris Johns, Operations Coordinator, Albany Sea Rescue Squad, (AVMR) advised the court the conditions out in the water while searching for Mr Zhang were extremely challenging and, that in the process of the search, the two ski rescue operators were both tipped from

⁵² † 22.11.17, p157

their jet skis into the water.⁵³ They had to be rescued and returned to their skis by the AVMR vessel.

Ms Abbott pointed out she was experienced with Albany sea conditions and even she was horrified at the state of the water on that day and the danger to which it exposed everybody attempting to assist in the rescue. She was concerned for the safety of all people in the area to the extent she decided to leave one of the ambulances in attendance at the Salmon Holes, while she travelled with Mr Li's body to Albany.⁵⁴

Ms Abbott then went on to describe the difficulty for her as the paramedic in attendance with Mr Li's body in trying to assist Mr Li Snr with his grief over his son's death while the volunteer paramedic drove the ambulance to the mortuary in Albany.⁵⁵ Due to the language difficulty it was a very confronting situation. Ms Abbott was severely distressed just speaking about that grief in court.

While all police, SJA personnel and AVMR crew members gave evidence perfectly professionally as to the situation with which they were dealing, it was very clear from the court proceedings, two and a half years later, no one present on the beach, including all the civilians, was unaffected by the trauma of the incident of recovering one

⁵³ † 22.11.17, p110

⁵⁴ Ex 1, tab 36

⁵⁵ † 22.11.17, p159

person, deceased, and the failure to recover the other person from the water.

Search

Following the removal of Mr Li's body from the beach area the search for Mr Zhang continued, despite the serious conditions. While some of those present had observed the yellow rain jacket, as later confirmed by Mr Wang, Mr Zhang had been wearing, it is not clear to me that rain jacket was still being worn by Mr Zhang. The state of Mr Li's body once he had been returned to the beach was one of near undress. Obviously his clothes had been stripped away by the turbulence of the water during his immersion. I see no reason to expect that Mr Zhang was still in his yellow rain coat.

The original 000 call to POC initiated the call to the Albany Police for an emergency response by Murphy. He dispatched Chandler and Gill to the Salmon Holes while he remained in Albany Police Station to coordinate an emergency response. That involved alerting AVMR and Water Police Control Centre for assistance with the incident as it developed.

Murphy described some issues with communication due to the difference between the digital police communications and the VHF marine rescue radio communications, coverage in the Salmon Holes area and the weather conditions. Murphy understood from Chandler and Gill that on their

arrival Mr Li had been dragged from the surf and was deceased while another person was missing. Murphy instituted a full search and rescue mission with respect to attempting to locate the missing person.

Local police resources were stretched, but Murphy stated that until all resources are properly deployed police will always find resources with additional off duty officers being called to return to duty as the need for additional resources arose. Murphy described the difficulty in trying to coordinate an incident with the AVMR, Water Police, and himself as incident controller.⁵⁶ This caused difficulties with trying to coordinate information from the beach via the police to the AVMR out on the water looking for Mr Zhang.

Despite those communication difficulties, by approximately 9.30 am there was an effective search operation in progress in the waters off the Salmon Holes despite the weather conditions. Efforts were made to determine the direction of the water flow despite an order the jet skis be removed from the water due to the extremely dangerous conditions. Murphy needed to take into account fuel consumption of any air craft, as well as the vessels, involved in the search for Mr Zhang on the ocean. By 1.30 pm the weather conditions had deteriorated further and Murphy considered the situation was becoming too dangerous for the rescue vessels and personnel to remain on the water. The Water Police advised him they were planning to send divers to the

⁵⁶ † 20.11.17, p34

area with a predicted first dive search possible at 8.00 am on Tuesday 21 April 2015.

Meanwhile the search continued with different air craft becoming involved in searches in designated areas. This required the appointment of local SES trained aerial observers to assist in the search.

By 3.30 pm enquiries were made with respect to the conditions and the personal details of Mr Zhang so that an expert survivalist could assess the likelihood of Mr Zhang's survival time, if still alive in the water.⁵⁷

The search and rescue effort on 18 April 2015 was suspended at approximately 5.30 pm due to the diminishing light and continuing extreme sea conditions. Input was being received from the Water Police as to mapping for likely search areas and police personnel were continuing with attempts to keep the families of the deceased informed via the use of telephone interpreters. Plans were put in place for the recommencement of the search operations for the following Sunday morning, 19 April 2015.

Murphy outlined the *“VMR crews were extremely frustrated and angry regarding the lack of direct communications, which clearly had an adverse effect on their ability to assist and left at least one crew in the area for an extended time unexpectedly. This endangered the crew, as fatigue would*

⁵⁷ † 20.11.17, p37

*have caused an unacceptable risk to search personnel in extreme sea conditions*⁵⁸ Murphy continued making arrangements for the involvement of additional resources on the Sunday to continue with the search for Mr Zhang.

Senior Constable Jennings (Jennings) of the Water Police was confident that despite the weather conditions the search on the surface of the water for Mr Zhang would have been successful by the end of 18 April 2015 had Mr Zhang been on the surface.

Senior Sergeant Veal (Veal) of the Water Police was the dive squad supervisor for the underwater search for Mr Zhang. He explained the conditions for an underwater search at the Salmon Holes was almost entirely reliant on the swell preceding any event resulting in the need for an underwater search. On a good “*non-swirly*” day, without a large swell, the underwater environment had good visibility and was quite easy to search. However, in the conditions that had existed on 18 April 2015, excluding the fact the dive team had to travel to Albany, it would have been dangerous to even consider putting the dive team on the water, let alone in the water.⁵⁹

Advice from an expert survivalist received on 19 April 2015 indicated there was no reason to believe Mr Zhang could still be alive by midday of Sunday 19 April 2015.⁶⁰

⁵⁸ † 20.11.17, p37

⁵⁹ † 20.11.17, p51

⁶⁰ Ex 1, tab 21

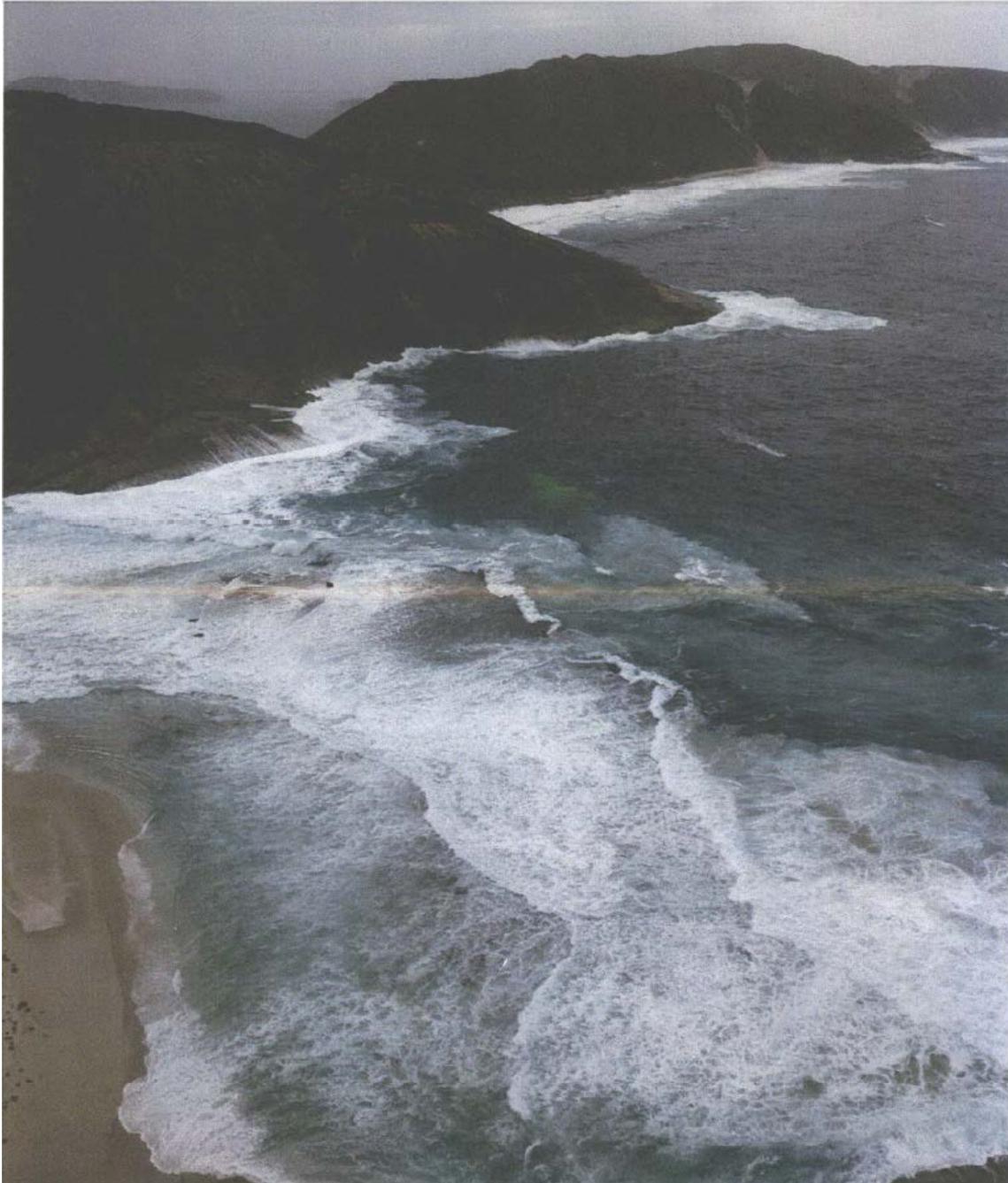


Exhibit 1, Tab 21, Page 10 – Photo taken by Lifesaver Rescue Helicopter on 18 April 2015 - Green sea dye deployed by helicopter to determine the flow of current/rip.

Using data supplied by the Lifesaver Rescue helicopter on 18 April 2015 of the surface water flow a search pattern for the on water search was established using local expertise to

refine calculated predictions.⁶¹ That did not assist with underwater drift patterns for a search by divers.

Veal explained the underwater topography of the area was relatively contained and once conditions had improved a grid pattern for the underwater search was implemented starting with the area underneath where Mr Zhang had entered the water. By the Tuesday the conditions were calm and it was possible to search underwater from the rock face, outwards. While the divers did find some items that had lodged in the area, nothing was found which could be directly related to Mr Li or Mr Zhang. Despite an extensive outward ranging search in the channels and underwater ways no trace of Mr Zhang could be located. The divers were satisfied they had achieved a very high level of the probability of detection had Mr Zhang's body still been in the area.⁶²

Veal, from a professional and personal perspective, outlined his view on the wearing of suitable life jackets while rock fishing with an emphasis on suitable, as in fit for purpose and effectively maintained. He stated "*life jackets are a must. It's a no-brainer in my mind*".⁶³ He went on to explain his belief they should also be worn by any person in a vessel or out on the open water and that water police have a policy of always wearing life jackets while on the water unless actually diving with a wet suit.

⁶¹ Ex 1, tab 21 & t 20.11.17, p41-42

⁶² Ex 1, tab 21

⁶³ t 20.11.17, p52-53

Sergeant Michael Wear (Wear), now involved with land searches (LSAR), gave evidence from his, then perspective, as the MSAR coordinator for the national police search and rescue courses. Wear explained police, nationally, are the designated hazard management authority which included responses to rock fishing incidents.⁶⁴

Rock fishing is recognised as the most dangerous sport in Australia and yet is one where participants frequently take minimal precautions for their own safety and so rely heavily on emergency services and volunteers, often in treacherous conditions when something goes wrong. Due to its remoteness the outcomes for emergency and volunteer services dealing with incidents at the Salmon Holes are usually exhausting with none of the rewards of a positive outcome for rescuers and families. None of those lost at the Salmon Holes over the years have been wearing life jackets.⁶⁵

Wear listed the personal safety equipment and behaviour which would improve the outcome for high risk water activities as life jackets, non-slip but light weight shoes, EPIRBs, and other communication devices. He also listed attempts made by those responsible for managing high risk areas to improve outcomes by the location of warning beacons which acted both as an alert, once activated, and provided life buoys, some with EPIRBs. These were

⁶⁴ † 20.11.17, p61

⁶⁵ † 20.11.17, p63

frequently subjected to malicious damage and emphasised the need for those involved in high risk activities to take some responsibility for their own safety to improve outcomes for themselves, their families, rescuers and the wider community.

The search for Mr Zhang had continued through Sunday 19th, Monday 20th and Tuesday 21st when Water Police divers met with Murphy with respect to their underwater search, and finalised on Tuesday 21 April 2015 following the Water Police, VMR vessels and jet skis, and the Department all having contributed to attempting to optimise the search operation. Following the Water Police underwater search all personnel returned to the incident control centre to decide whether there was anything to be gained by any further searches.

It was concluded there was not and as a result Mr Zhang remained a missing person.

Overall, the search had made use of;

- local police and ambulance paramedics;
- the Westpac Rescue Helicopter;
- the Department of Transport patrol vessel;
- two AVMSAR vessels;
- jet skis;
- fixed wing aircraft sourced through WAPol air wing;
- SES trained air observers;

- DFES personnel;
- WAPol Dive Squad;
- Interpreters;
- a survival expert;
- as well as the contribution of those on the beach at the time Mr Li and Mr Zhang entered the water.

POST MORTEM EXAMINATION OF MR LI

The post mortem of examination of Mr Li was carried out by Dr Jodi White, Forensic Pathologist of the PathWest Laboratory of Medicine on 21 April 2015. This was an external examination only at the request of the family of Mr Li.

On examination of Mr Li's body Dr White found scattered soft tissue injuries and that Mr Li was covered in fine beach sand with evidence of medical intervention. Limited investigation by way of toxicology was undertaken, but there was no explanation for Mr Li's death other than, it was in the circumstances, consistent with drowning.⁶⁶

On receipt of the limited toxicology Dr White was able to confirm Mr Li had no evidence of alcohol or common or illicit drugs in his system at the time of his death.⁶⁷

A cause of death of drowning is one of exclusion based on other possible mechanisms of death. In this particular case

⁶⁶ Ex 1, tab 6

⁶⁷ Ex 1, tab 7

there was no internal examination, but it is evident from the eye witnesses Mr Li was apparently physically well prior to being swept off the rocks and into the water. He was in the water for a period of time incompatible with life in the absence of a life jacket, and the high probability of unconsciousness prior to death.

Dr White pointed out that without a full post mortem examination she could not exclude internal injuries, such as a head injury, being present and so contributing to Mr Li's death by drowning. There was no external evidence of fatal injury.

Potential for the Survival of Mr Zhang

On 19 April 2015 Jennings, Water Police, had contacted Dr Paul Luckin with a request he assist the police in determining a reasonable time frame in which to expect it would be possible for Mr Zhang to survive being swept from the rocks into the water in the conditions on 18 April 2015.⁶⁸ Dr Luckin's input was sought to clarify the possibilities of Mr Zhang still being found alive.

It was Dr Luckin's opinion it was not possible Mr Zhang would still be alive, roughly 29 hours after entering the water and Jennings' recommendation to Murphy was to suspend all surface air and sea searches with respect to an expectation Mr Zhang could still be recovered alive. It was approximately 30 hours since Mr Zhang had entered the

⁶⁸ Ex 1, tab 21

water and the Water Police concluded there was no reasonable prospect of survival taking into account Dr Luckin's expertise and the extent of the search on 18 April 2015. The search operation continued in an effort to locate Mr Zhang and so provide his family with some spiritual certainty he was not drifting at sea awaiting rescue.

Evidence of Dr Luckin – How People Drown

Dr Luckin is an anaesthetist who has developed a special expertise with respect to the survival of people, both on land and at sea, to assist with directing various search and rescue operations. He is a medical advisor to the Australian Maritime Safety Authority and is also used by the Australian Federal Police to assist in the resources necessary when considering the survivability of people in different environments.

Dr Luckin gave evidence to the inquest by way of video-link to clarify for the court the considerations taken into account when trying to estimate a reasonable survival time for persons in the seas off Albany.

With respect to Mr Zhang, aside from advice to the Water Police on 19 April 2015, Dr Luckin also provided the inquest with evidence as to his criteria for determining survivability for people who have suffered submersion in water by

describing the various responses to sudden immersion in water.⁶⁹

Dr Luckin outlined that sudden immersion in water causes a number of physiological responses which are relevant to how long Mr Zhang might have survived in the water on falling into the seas on 18 April 2015, and how Mr Li actually died. He divided the physiological responses into three categories which he used to determine a person's survivability in particular circumstances.

- ***Respiratory Responses***

The first set of physiological responses were the respiratory responses, divided into an increased respiratory drive, related to the sudden immersion in water causing an increase in the rate of breathing. The colder the water, the more the rate of breathing increased and for people not accustomed to cold water this response could occur in water as temperate as 25°C. This included most Australian waters and certainly those in the vicinity of Albany.

In addition to an increased respiratory drive there was a decreased breath hold time, especially on sudden immersion in cold water which decreased the breath hold time significantly.

Dr Luckin also took into account a gasp response in waters below 15°C which cause rapid and uncontrollable breathing.

⁶⁹ Ex 2, tab 16

Dr Luckin advised the lower the water temperature the more marked the gasp response and it may be in the vicinity of 2-3L per breath. *“the initial gasp response on sudden immersion in very cold water causes the individual to breath at close to total lung capacity”* which creates a feeling of suffocation.⁷⁰ He pointed out this is the time of highest risk of immediate drowning. The gasp response promoted the feeling of panic and increased the risk of immediate drowning.

This led to over breathing and the fourth respiratory response of reduced carbon dioxide levels. Dr Luckin pointed out a fall in carbon dioxide levels can cause dizziness and confusion, often already suffered by people falling unexpectedly into deep water.⁷¹

- ***Cardiovascular Responses***

In addition to the respiratory responses there are also cardiovascular responses with sudden immersion. This caused wide spread restriction of the surface blood vessels, except the head. Combined with the hydrostatic pressure of water on the body this caused an increased blood flow from the peripheral circulation to the heart. There is then a sudden and marked rise in heart rate and an increase in blood returning to the heart. This caused an increase in blood pressure with a sudden increase in workload on the heart. This carried a risk of sudden heart attack, especially

⁷⁰ Ex 2, tab 16

⁷¹ Ex 1, tab 16 & t 23.11.17, p233

in those who already suffered high blood pressure or coronary artery disease. In addition, the release of stress hormones, adrenaline and noradrenaline, further elevated the heart rate and blood pressure.

Dr Luckin pointed out it is possible for this marked increase in blood pressure to cause bleeding into the brain in the form of a stroke, and separately an arrhythmia of the heart.

Immersion in cold water also caused a diving reflex which is a drop in the heart rate. This is especially the case when a person's face is immersed, or cold water hits the face. This stimulated the vagal nervous system which caused fainting when heart rate and blood pressure, rather than suddenly rising suddenly drop, and blood flow to the brain drops. Obviously dangerous in water. Dr Luckin stated the arrhythmia is thought to be the result of the competing effects of vagal stimulation (driving the heart rate down) and the adrenaline and the noradrenaline (driving the heart rate up). In addition, a sudden rush of water up the nose can also cause the heart to slow suddenly or stop, also the effect of vagal stimulation.

- ***Psychological Responses***

As well as the interaction of the four respiratory responses and three cardiovascular responses, Dr Luckin also took into account the psychological responses of a person suddenly, accidentally, immersed in water and promoting extreme fear and possibly panic. Dr Luckin described panic

as decreasing a person's ability to exert any control over their breathing, swimming, and posture in the water, and made death by immediate drowning more likely. It was essential for a person's survival on sudden immersion in water for the airway to be clear of water during the first seconds following entry into the water when a person is no longer able to hold their breath and is forced to breathe in. Aspiration of water into the lungs resulted in immediate death by drowning or, failing immediate death, respiratory failure.

Dr Luckin was of the opinion that in the extreme water conditions and high waves at the time Mr Li and Mr Zhang were washed into the water, and the fact they were clothed, but not wearing life jackets, it was most probable they were washed under the surface and remained under the water for some time.

Dr Luckin stated their immediate survival depended on their ability to hold their breath long enough to reach the surface of the water and relied on their positive buoyance provided by air inflated lungs as opposed to water inflated lungs, and clothing depending on whether it trapped air to give positive buoyance or became water logged to give negative buoyance.

Dr Luckin went on to state the gasp response created an extremely high risk of aspiration of water either from the water or spray, inhibiting effective swimming which relied on coordination of the limbs and breathing.

The reduced carbon dioxide levels caused confusion and the likelihood people would not swim in the right direction, if they are swimming, and increased the likelihood of immediate drowning in conjunction with laryngospasm caused by water entering the upper airway and hitting the vocal cords. This spasming closed the entrance to the airway and prevented air from entering or leaving the lungs and so obstructed breathing. People deprived of oxygen in this way, and with an elevated carbon dioxide level, lose consciousness and float face down in the water. Death by drowning is both inevitable and rapid in the absence of immediate rescue and resuscitation.

The fact Mr Li came to the surface would imply he still retained some positive buoyance. However, after apparently attempting to swim for a short period of time it is clear he became unconscious which caused him to float in the wash face down, until he could be pulled to shore by Mr Geall. Had he floated face up there may have been a prospect for survival.⁷²

The situation with Mr Zhang is unknowable without recovery of his body, but there are a number of scenarios. None imply his survival for more than minutes following his being washed into the water.

⁷² † 23.11.17, p247

Dr Luckin believed it was possible Mr Zhang may have sustained traumatic injuries while sliding down the rock face, on entering the water, or by being washed against the rocks once in the turbulent water and high waves. Of these the most dangerous would be a head injury.

Dr Luckin advised that even in the absence of injury the successive impacts of being hit by waves as they hit the rocks and hit the water was likely to have resulted in Mr Zhang entering the water with only partially air filled lungs. On impact with the water or rocks or the sea bottom it was possible the remaining air in his lungs was expelled. This would have destroyed any positive buoyancy from air inflated lungs. Dr Luckin concluded that given Mr Zhang was not wearing a life jacket, but was wearing a jacket and work boots, he had no positive buoyancy and in those water conditions survival for even a few minutes was extremely unlikely.

Dr Luckin's opinion was that Mr Li and Mr Zhang were pushed under water by the waves which washed them down the rock face and then pulled them under by the back wash. He considered the yellow rain jacket worn by Mr Zhang would have further limited his ability to stay on the surface and would have exaggerated the degree to which he was churned around in the waves.

This scenario would mean Mr Zhang had reduced air in his lungs on entering the water and, that in the conditions

experienced, his lungs would have exhausted the available oxygen very quickly leading to a loss of consciousness. The increasing carbon dioxide levels would have caused the unconscious person to breathe water in and so result in drowning.

Finally, I note Dr Luckin was advised the water temperature on 18 April 2015 was between 19-20°C. In his opinion Mr Zhang would have died before he had time to suffer hypothermia. He noted Mr Li was described as a good swimmer, but was deceased within a few minutes, and that Mr Zhang, who was not such a good swimmer, could be expected to have died in a shorter period of time.

Dr Luckin concluded that *“It is my opinion that Mr Zhang would not have been able to survive for more than an extremely short period of time; a very few minutes at most”*.⁷³

In evidence I put to Dr Luckin the fact Mr Li had been recovered but Mr Zhang had disappeared. Neither man had been wearing a life jacket but it was likely Mr Li retained some positive buoyance due to his lungs not being immediately filled with water. I noted Mr Li, when recovered, was floating face down which implied he was unconscious and that he was seen floating that way for some time before conditions were safe enough, and he was close enough to the shore, for someone to be able to pull him into the shore and resuscitation started.

⁷³ Ex 2, tab 16

The fact Mr Li retained enough positive buoyance to return to the surface, but shortly thereafter floated face down unconscious, or deceased, would imply that had he been wearing a life jacket or personal floatation device (PFD) of appropriate specifications it could have held his head out of water until he could be rescued and possibly revived. It would have increased his chances of survival as he appeared to retain enough positive buoyancy to remain on the surface.

It was Dr Luckin's analysis of the physiological responses to drowning which caused him to be a very strong proponent of the wearing of fit for purpose and properly maintained life jackets;

“with a life jacket all of those factors would have played and would have given him a far higher chance of survival through that period, and if his only problem was that he was unconscious, a life jacket that held him on the surface and turned him onto his back with his airway out of the water may well – that alone may have been sufficient to cause his survival. But, certainly, all of those factors would have contributed to a far greater chance of his surviving.”⁷⁴

With respect to Mr Zhang I was unclear as to whether the yellow rain coat seen floating was actually still on Mr Zhang. I believed it likely Mr Zhang had died very shortly after

⁷⁴ † 23.11.17, p247

immersion due to a lack of positive buoyancy. This also prevented the recovery of Mr Zhang from the surface of the water.

The fact Mr Zhang had not been recovered or seen with certainty supported Dr Luckin's opinion, taking into account the physiology of drowning, Mr Zhang had died within moments of immersion in the water on 18 April 2015 at approximately 7.00 am. He believed Mr Zhang died by way of drowning and that the major contributory factor to Mr Zhang's drowning was the fact he was not wearing an appropriate life jacket.

Deceased bodies with no positive buoyance do not surface but remain floating just above the sea floor, drifting with the water flow until decomposition changes affect the buoyancy of the body.⁷⁵

CAUSE AND MANNER OF DEATH - MR LI

I am satisfied that on 18 April 2015 Mr Li travelled to the Salmon Holes with the intention of fishing for salmon from the rocks. He was in company with Mr Zhang and while the evidence as to whether they were tied together or tied separately with ropes to a rock differs, I note the evidence of Mr Li's father that his son and Mr Zhang had secured themselves with what looked like two separate ropes to a rock near the cliff face. I am satisfied they were not attached to the anchor points as outlined by some

⁷⁵ † 20.11.17, p56

witnesses. After the event it was apparent to the police a rope had broken. Neither man was wearing a life jacket of any description.

I am satisfied that around about 7.00 am Mr Li and Mr Zhang had just started fishing from the rocks on the north eastern end of the beach when a series of three waves, of increasing magnitude swept over the rocks. It was the final wave which appeared from behind the two fishermen which swept over the rocks and knocked both men into the sea. There is clear evidence of the two men falling down the rock face while surrounded by water and being pulled into the ocean.⁷⁶

I am satisfied Mr Li was pulled under that water by the back wash and was submerged for a few moments before he surfaced, apparently swimming but shortly thereafter unconscious, face down in the water. The conditions were severe and it was not feasible for another person to enter the water and swim to rescue him. An attempt was made to throw one of the floatation devices located at the beach to Mr Li, but he appeared to have been unable to respond. Eventually, his body was washed towards the beach and Mr Geall, at considerable risk to himself, eventually managed to dig his toes into the sand far enough to give him some security against the backwash as he pulled Mr Li to shore. A number of other people then attempted to resuscitate Mr Li, but were unsuccessful.

⁷⁶ Ex 1, tab 22

By the time the police and shortly thereafter the ambulance paramedics arrived it was apparent Mr Li was deceased.

An external post mortem examination did not discover any external signs of serious injury, however, I am satisfied on the evidence of Dr Luckin that Mr Li died very shortly after his immersion and emergence on the surface on the water. The description of foam from his lungs would confirm he died of drowning from one or a combination of the physiological responses described by Dr Luckin.

I am satisfied Mr Li died as a result of drowning, although I am unable to determine whether there were other injuries which contributed to that death.

I find Mr Li's death occurred by way of Accident.

DETERMINATION OF THE DEATH OF, CAUSE AND MANNER OF DEATH - MR ZHANG

I am satisfied that Mr Zhang travelled to the Salmon Holes, Torndirrup National Park, on 18 April 2015 with his father-in-law Mr Wang, Mr Li and Mr Li's father. He commenced fishing from the rocks after securing himself with a rope to a rock at about 7.00 am near his friend Mr Li. Mr Zhang was wearing a yellow rain coat as confirmed by Mr Wang, but no life jacket.

I am satisfied Mr Zhang was swept into the water below the rocks from which they were fishing by the same wave which swept Mr Li into the water.⁷⁷

I am unable to determine on the evidence whether Mr Zhang actually surfaced or was immediately negatively buoyant and remained under the water in the turbulence on the sea bottom. It is probable, in view of the state of undress of Mr Li on his rescue from the water, that Mr Zhang's yellow rain coat worked free from Mr Zhang and it was his rain coat which was seen floating out to sea. I am of the opinion Mr Zhang died almost immediately on his submersion under water, and remained on the sea floor with exposure to that environment.

I am satisfied, on the evidence, the death of Mr Zhang has been established beyond all reasonable doubt and I so find.

In the circumstances described with respect to Mr Li, I am also satisfied beyond all reasonable doubt that the cause of Mr Zhang's death was as the result of immersion (drowning) although I am unable to determine whether serious traumatic injury contributed to that drowning. There is no evidence Mr Zhang suffered any fatal condition prior to his sudden immersion.

In view of all the circumstances I find Mr Zhang's death occurred by way of Accident.

⁷⁷ Ex 1, tab 22

SAFETY CONSIDERATIONS WITH RESPECT TO THE DEATHS OF MR LI AND MR ZHANG

Prior to this inquest, and that of Mr Soltani heard on 24 November 2017, there was divided opinion amongst many of the submissions received from the entities involved with rock fishing as to the desirability of mandatory life jacket regulation. The resistance to a recommendation concerning the mandatory wearing of appropriate life jackets related to the issue of policing. Following the evidence of Dr Luckin and Dr Cook there was little doubt the wearing of appropriate life jackets would have increased the survivability of both Mr Li and Mr Zhang by providing them with artificial positive buoyance to bring them to the surface of the water.

In addition an appropriate life jacket would have ensured Mr Li's face was held above the water, in the event he was unconscious, and so enabled a breathing response to occur in air and possibly assist with his survival. There was no dispute on anybody's evidence the wearing of a life jacket would have assisted rescuers, including Mr Geall, to bring Mr Li to shore and so increase his likelihood of being successfully resuscitated.

With respect to Mr Zhang it was highly likely the positive buoyance provided by an appropriate life jacket would have carried his body to the surface where it would have given him the best chance of survival by holding his face out of the water. It would also have increased his chances of being

retrieved by either the rescuers on jet skis or the rescue vessels. Quicker and safer retrieval of Mr Li, and possibly Mr Zhang, from the water would have decreased the amount of time first responders on the beach and the multiple responders to the incident had to spend in very threatening conditions themselves.

The wearing of appropriate life jackets is a factor not only in the safety of the rock fishermen, but the safety of all those involved in attempting to save lives when the unthinkable happens and fishers actually end up in the water instead of remaining on the rocks. The policing issue is complicated but regulation will lead to cultural change as it has with motor vehicle seat belts, bicycle helmets and littering.

The majority of rock fisher witnesses from whom the court heard appeared to concentrate their efforts on not ending up in the water, by some use of anchor points and harnesses, rather than any thought given to their survivability once actually in the water.

Evidence was sought from Dr Barbara Cook with respect to her preliminary research arising out of a survey of rock fishermen over the Easter weekend 2015, approximately two weeks before the death of Mr Li and Mr Zhang.⁷⁸ The survey followed inquests held on the east coast where the attitudes of rock fishers to the considerable input from various organisations to educating rock fishers as to the

⁷⁸ Ex 1, tab 31 & t 23.11.17, p205

dangers of rock fishing do not appear to have achieved the desired results.⁷⁹

In addition, the inquest heard evidence from Mr James Allan proprietor of Albany Rods and Tackle who had been in the fishing tackle trade for over 35 years and fished the south coast for over 40 years. Mr Allan gave evidence he provided life vests/jackets (free of charge) to any angler that required one. This was originally funded by Recfishwest in response to the death of a local fisher who drowned following falling into the water while rock fishing.

A number of witnesses, including Mr Allan, pointed out that in the environment at Salmon Holes the rocks are extremely slippery. Even on a calm day the spray from the waves caused the surface of the rocks to react like an ice rink and those on the rocks were likely to slip into the water, aside from direct wave action.⁸⁰ In those circumstances the physiological and psychological responses described by Dr Luckin would still apply and the positive buoyancy provided by an appropriate life jacket would give rescuers more time and opportunity to retrieve a person from the water alive.

Mr Allan stated that although he offers life jackets free of charge, his offer is very rarely taken up despite advertising by Recfishwest on its website that various shops will provide

⁷⁹ Ex 1, tabs 29, 30

⁸⁰ † 23.11.17, p224

life jackets for use free of charge.⁸¹ Mr Allan was of the opinion there was mostly a difficulty with people not local to the area, although Mr Johns stated AVMR had been involved in as many incidents with local fishers as they had with those not local to the area.⁸²

Evidence was heard from Dr Cook in an attempt to clarify the sorts of considerations rock fishers surveyed in the area took into account. There was and is extensive signage depicting the dangers of rock fishing, both by word and pictures, and considerable educational efforts by numerous organisations to ensure people understand rock fishing is dangerous, just as effective from the beach but less risky, and people are wise to wear a life jacket.

For the purposes of these inquests I was particularly concerned with the results of a survey Dr Cook referred to carried out in California. This recounted an evaluation of results achieved in increasing the wearing of life jackets following education with respect to the wearing of life jackets and mandating the wearing of life jackets. The evaluation revealed that where there was an extensive education campaign with respect to the wearing of life jackets the percentage of people actually wearing life jackets was only elevated from 9% to approximately 11%, whereas once it was made mandatory, regardless of policing, the percentage of people wearing life jackets rose to 70%.

⁸¹ † 23.11.17, p225

⁸² † 23.11.17, p229 & Soltani † 24.11.17, p51

Dr Cook concluded as a result of the UWA pilot survey and review of the literature, “mandatory, rather than voluntary, use of life jackets as being the most effective means for increasing their use”.⁸³

Signs and Education

The coast in Torndirrup National Park is spectacular and rightly attracts many visitors. No one wishes for visitors to be discouraged from visiting due to preventable outcomes.

The Department already provides numerous signs and warnings at the Salmon Holes advising people of the dangers of climbing on the rocks. There are also a number of organisations which extensively cover issues surrounding the education of fishers as to conditions and taking responsibility for their own safety and understanding the relevant conditions with weather and environment.

The provision of anchor points by the Department was the result of much angst as to the tension between safety and allowing people to make some provision for their own safety when it was clear people would fish from the rocks regardless of the dangers.

Overall, the witnesses who used the anchor points did attempt to secure their safety by using tensioned ropes and

⁸³ Ex 1, tab 31 Quoting Journal Public Health Policy 2014 Volume 35, Sub Volume 2 pgs 204-218 Mangione T, Chow W. “*Changing life jacket wearing behaviour: an evaluation of two approaches*”

proper harnesses.⁸⁴ The wearing of appropriate life jackets only enhances those efforts and needs to become a focus. Regardless of policing the majority of people will comply with regulation for safety in the desire to be left in peace.

The addition to signs and educational posters and videos of the need to wear life jackets when fishing from the rocks would be an easy addition and not detract from the very impressive information and videos already available.

Life Jackets

There are many types of life jackets available. Practicality, maintenance and financial costs are also considerations for many fishers, but the cost to those fishers, their families and the community when a fisher loses his or her life in circumstances where a life jacket could have saved them is infinitely greater. While there was some reluctance from many of the witnesses to concede life jackets were appropriate, especially for those who could not swim, I have no doubt a majority would wear one if the issue was regulated.

There was a general resistance to the imposition of regulation until reminded of the danger to others in rescue, and the stress to families and bystanders. None of the visiting witnesses had even considered returning to the

⁸⁴ † 23.11.17, p264

Salmon Holes and some have not rock fished anywhere again.⁸⁵

Dr Luckin was anxious to emphasise that the wearing of an appropriate life jacket extended the time frame for survival, quite aside from the initial positive buoyancy in bring a person to the surface. It will support a person once on the surface by increasing their chances of breathing in air, protecting them from trauma and increasing their ability to remain on the surface despite injury or swimming ability. It helps a person help themselves if they are in a position to do so. It increases the time frame in which there can be a successful rescue if a person is still alive and increases the recoverability of a deceased for families if not.⁸⁶

Dr Luckin agreed the old fashioned types of life jacket were awkward to wear but pointed out the modern, automatic self-inflating life jackets available in 2017 were convenient to wear to the extent fishers could forget they were wearing one, until it saved their lives.

The life jackets Dr Luckin recommended were those that conformed to Australian Standard 4758.1:2015 and;

- were auto-inflating on impact with the water;
- had a minimum level of 150N;
- were made of retro reflective material, abrasion resistant, incorporated a light and whistle;

⁸⁵ † 21.11.17, p135

⁸⁶ † 23.11.17, p243

- have the facility to carry a personal emergency positioning indicator rescue beacon (EPIRB) which would also be a desirable piece of equipment.⁸⁷

Communication

The inquest heard a great deal of concern from those involved in the initial response to the incident, and ongoing efforts to locate Mr Zhang, about the difficulties caused by the specific location of the Salmon Holes and communication channels between the various organisations involved. Following the event most of the organisations involved attempted to find ways to ameliorate the difficulties, for example, by the AVMR providing the local police with hand held VHF marine radios to be used for emergency communication. While this will help it still causes a lag in response times when police need to return to the Incident Controller to collect radios.⁸⁸

Following the inquest Mr Johns organised a meeting of the entities involved in the rescue operation to provide me with a submission which would assist VMR groups, and those they work with, communicate effectively, both generally and very specifically in the Albany area. All parties were very anxious to enhance their cooperation and I thank Mr Johns and all contributors for the submission received.⁸⁹

⁸⁷ † 23.11.17, p246

⁸⁸ † 20.11.17, p38-39, 41

⁸⁹ AVMR, DFES Marine Services, Albany WAPol, Department of Biodiversity, Conservation and Attractions, Albany Surf Life Saving and VMRWA (WA Association of VMR Groups)

The submission sought recommendations which would;

1. Provide complete mobile coverage at the Salmon Holes and other notorious black spots in WA to reduce delays in 000 calls and reduce turn out times for first responders;
2. Review communication plans State-wide for emergency services for interagency operational response;
3. Ensure incident chain of command protocols and structures are maintained and followed in accordance with established legislation;
4. Provide a marine VHF repeater on Eclipse Island established on Channel 80 with separate infrastructure to the WAPol repeater;
5. Ensure regular exercises of MSAR procedures at local levels, and;
6. Ensure post incident debriefs are embedded and carried out for all MSAR incidents.⁹⁰

Some of those practices are already part of the emergency response protocols.

Drones

Murphy, Albany Incident Controller for the SAR with respect to Mr Li and Mr Zhang, apart from providing the inquest with evidence for the incident, also spoke about the benefits of the use of drones or unmanned aircraft as part of any SAR effort. The ability to record events and relay that to relevant bodies in real time to assist with search efforts is

⁹⁰ Communication from Chris Johns on behalf of listed contributors following inquest.

becoming wide spread. In 2015 Murphy explained WAPol offices were prohibited from using the technology on duty but recognition of the benefits for police work has seen that position revised and there is now a Police Air Operators Certificate available while training and protocols for use are being established.⁹¹

The technology allows searchers to put drones in the air in an area, but with an expanded view not available from a vessel, but more immediate than from an aircraft and allows closer and quicker examination of objects of interest in real time.

The ability to use a drone on 18 April 2015 to assist with search efforts for Mr Zhang would have helped those on the AVMR and other vessels involved in the search enormously, especially with the conditions on the water.

Since this incident in 2015 the AMSAR crew have their own drone and the ability for police to also utilise drones as part of their management, and communication with the MSARs will greatly assist in the expedition of rescue efforts.

Murphy also suggested the use of various attachments which could be used to drop, for example a personal floatation device (PFD), to a person in the water, provided they are in a state to use one, or water to someone in the

⁹¹ † 20.11.17, p45

bush.⁹² More recently there have been a number of incidents where drones have proved useful in emergency situations.

Mr Phillips of the Department also supported the use of drones on lands and parks managed by the Department in a number of functions. He stated that provided all relevant accreditations and regulations were followed the Department would support the use of appropriate drones in any SAR endeavour.⁹³

The most rewarding result for all people involved in any rescue effort is the safe rescue of a person alive, more likely if the person went into the water wearing a PFD, but even recovery of a deceased person for their family is a benefit. The outcome in this instance of the very dangerous conditions for all people involved with only Mr Li being recovered, deceased, and Mr Zhang never located would have to be the most traumatic outcome for all, especially Mr Geall who still struggles with the aftermath many years later.

Completion of Area Specific Surveys

I understand the completion of the survey undertaken by Dr Cook and the UWA students in 2015 into following years was not finalised due to a lack of funding. I also appreciate the difficulty for non-profit volunteer organisations in

⁹² † 20.11.17, p46

⁹³ † 23.11.17, p287

allocating funding to these types of endeavours when resources are very short and may well be used for more obvious benefit, such as the purchase of drones to assist with SAR operations.

However, an understanding of the attitudes and behaviours of those risking themselves when rock fishing may assist with how best to target changing those behaviours. The outcome of Dr Cook's literature survey certainly convinced all of those hearing that evidence at the inquest, combined with Dr Luckin's expert input, of the need to ensure, by any means, rock fishers wear life jackets. Resources are tight for all organisations, but the use of student input to collect data should be economical if it be confirmed to be useful, and could be considered by other organisations.

RECOMMENDATIONS

The difficulty with recommendations in this type of matter is finding an entity to whom the recommendations can be directed. This was discussed briefly in the course of Mr Phillips' evidence in representing the Department as a manager of the relevant area. In reality many entities are involved in emergency responses and work together to provide workable outcomes. In this case organisations and government agencies are clearly attempting to work together to implement strategies which will benefit all involved.

In the absence of specific entities to whom a recommendation would apply I have decided to make the recommendations to the Department and to WAPol. Both those organisations had representatives who sat throughout the inquests, provided input and contributed to the issues and submissions made and legislation requires police be involved in all land and sea search operations.

I appreciate the main recommendation will also affect the Department of Transport, Marine Safety,⁹⁴ as well as numerous other bodies and is already being assessed in this State and with respect to proposed NSW discussions towards regulation by the National Search and Rescue Council, but believe it appropriate the Department and WAPol make the required approaches to those entities based on the recommendations arising out of these inquests on behalf of Western Australia.

⁹⁴ † 23.11.17, p271

I recommend;

RECOMMENDATION No. 1

REGULATIONS BE IMPLEMENTED WHICH MAKE IT A REQUIREMENT ROCK FISHERMEN WEAR LIFE JACKETS WHEN FISHING FROM ROCKS SUBJECT TO WAVE ACTION AND SPRAY ON THE WA COAST;

A) THOSE LIFE JACKETS TO COMPLY WITH AUSTRALIAN STANDARDS 4758.1:2015 AND SELF-INFLATE ON IMPACT WITH WATER, HAVE A MINIMUM LEVEL OF 150N, ARE MADE OF RETRO REFLECTIVE MATERIAL, ARE ABRASION RESISTANT AND INCORPORATE A LIGHT AND WHISTLE; AND

B) ROCK FISHERMEN CARRY A PERSONAL EMERGENCY POSITIONING INDICATOR RESCUE BEACON (EPIRB)

RECOMMENDATION No. 2

APPROACHES BE MADE TO TELSTRA TO INSTALL A MOBILE PHONE TOWER ON ECLIPSE ISLAND, AFTER SUITABLE SURVEY, TO ASSIST COMMUNICATION IN ALERTING RESPONDERS TO, AND COORDINATING, EMERGENCIES.

RECOMMENDATION No. 3

A MARINE VHF REPEATER BE INSTALLED AND MAINTAINED ON ECLIPSE ISLAND BY DFES ESTABLISHED ON CHANNEL 80 WITH SEPARATE INFRASTRUCTURE FROM THE POLICE REPEATER.

RECOMMENDATION No. 4

THERE BE COLLABORATION IN DEVELOPING RELIABLE COMMUNICATION PLANS UTILISING INTERNATIONALLY APPROVED FREQUENCIES/CHANNEL ALLOCATIONS FOR MARINE SEARCH AND RESCUE OPERATIONS IN LINE WITH THE INTERNATIONAL TELECOMMUNICATIONS UNION (ITU) AND THE AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY (ACMA) STANDARDS.

RECOMMENDATION No. 5

THE REGULATION AND MANAGEMENT OF DRONES FOR EMERGENCY SEARCH AND RESCUE OPERATIONS BE CLARIFIED AND TRAINING AND CERTIFICATION OF COMPETENT PILOTS BE PROMOTED WITHIN SEARCH AND RESCUE GROUPS.

CONCLUSION AND COMMENDATION

The loss of Mr Li and Mr Zhang to their families is irreversible. They had come to Australia to start new lives and experience the life style and opportunities available here. Unfortunately, it ended in tragedy and I extend my sincere condolences to their families and communities for their loss.

But, at the same time, on behalf of the community I commend and express thanks to all those, like Mr Geall, who without hesitation sought to help those they saw in

trouble. Also, the more conventional rescue personnel who knowingly became involved in a rescue endeavour many understood could have a negative outcome.

On behalf of all those who risk their lives and emotions in these tragic circumstances, please wear life jackets. It may not always save your life but it will help return a better outcome to your families and the community as a whole.

E F Vicker
Deputy State Coroner
16 March 2018