IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: 2010 / 4736

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)
*Section 67 of the **Coroners Act 2008***

Inquest into the Death of: LEIGH TREVOR DAVIES

Delivered On:	29 September 2015
Delivered At:	Coroners Court of Victoria 65 Kavanagh Street, Southbank
Hearing Dates:	Tuesday 14 April 2015
Findings of:	JUDGE IAN L GRAY, STATE CORONER
Representation:	Mr John Goetz on behalf of the family Ms Elizabeth Muhlebach on behalf of Mr Adrian Mnew Mr Rob O'Neill on behalf of Gamerec Charters Pty Ltd
Police Coronial Support Unit	Leading Senior Constable Andrea Hibbins assisting the Coroner

I, JUDGE IAN L GRAY State Coroner, having investigated the death of LEIGH TREVOR DAVIES

AND having held an inquest in relation to this death on 14 April 2015
at Melbourne
find that the identity of the deceased was Leigh Trevor Davies
born on 20 August 1958
and the death occurred on 12 December 2010
in the Vicinity of Corsair Rock, Port Phillip Heads, Victoria
from:

1 (a) DROWNING

in the following circumstances:

1. The deceased, Leigh Davies (Mr Davies) aged 52 years, resided in Wallington with his wife and 2 children. On the day of his death, he had been driven to the Queenscliff Marina by his wife, Marjorie Davies, with the intention of participating in a 5 hour Port Phillip Bay fishing charter being conducted by Gamerec Fishing Charters (Gamerac). This charter was due to operate between 2 pm and 7 pm on Sunday 12 December 2010. Mr Davies had a history of asthma, which he managed medically, although he was known to be a very good swimmer. At the time of his death, he had no significant medical problems or illnesses.

2. At approximately 2 pm on Sunday 12 December 2010, Mr Davies attended the Queenscliff marina and attended the offices of Gamerec, from there he boarded a 10.5 metre, steel hulled, twin engine fishing vessel named 'The Ultimate'. This vessel was an ex-diving charter boat, which had been modified to be utilised as a charter fishing boat. The vessel was owned by Dive Victoria Group, and was leased by Gamerec for the purposes of commercial fishing charters. There were 8 other passengers on this charter and the vessel was crewed by 3 employees of Gamerac. Mr Tim Lacey was employed as the operator or coxswain and there were 2 deckhands, Mark Orlov and Michael Flew. A total of 12 people boarded the vessel for the charter on the day in question.

3. The charter departed the Queenscliff marina at approximately 2.15 pm.

4. The weather on the day was described by Coroners Investigator (CI) Leading Senior Constable (LSC) Robinson as:-

"The weather conditions in the morning, Your Honour were - were quite significantly different to what they were in the afternoon. There was a strong 30 knot, which is

approximately 55 kilometre west, north westerly wind blowing in the morning and that affected a charter which operated in the morning, it was supposed to go for a certain number of hours, they cut it short due to the wind strength and the conditions of Port Phillip Bay. However, in the afternoon there was a change in the weather and the weather had swung from the west north west to the south west and winds had dropped down to at the time of operation around 13 to 14 knots."[1]

5. The inquest brief included a report prepared for the Office of the Chief Investigator, Transport Safety dated 30 May 2011. The report was prepared by Cardno Victoria Pty Ltd. Cardno was requested to describe conditions on 12 December 2010 by reference to the following:

"Conditions on 12 December 2010

- *Describe the conditions on the day, based on recorded data from the Bureau of Meteorology and Port of Melbourne Corporation. This will include tidal movements, wave conditions in Bass Strait adjacent to Point Nepean and wind conditions.*
- *Use this recorded information in model simulations to examine the likely conditions in the area of the incident taking into account details of the water depths in the vicinity and their effects on the waves.*
- *Discuss wave behaviour and possible wave shapes (breaking etc.) in the area.*
- *Make reference to normal or expected conditions and identify any unusual or noteworthy conditions."*

6. As to wind speed and direction the report stated:

"The wind on 12 December 2010 was from the west north-west during the morning with speeds from 30 knots decreasing to 10 knots at midday. In the afternoon, the wind direction changed to be from the south west with a speed 13 to 14 knots between 15:00 and 16:00 EDT...In general, the data indicates what could be described as settled and "normal" conditions at the time of the incident."

7. The tide conditions were reported to be as follows:

"Slack tidal current, which occurs when the water levels at Rip Bank (represented by Lorne) and Queenscliff are the same, was predicted to occur at 14:00 EDT and the plot indicates that the sea-levels at these two locations were very close at that time. At 15:00 EDT the tidal stream was flooding, running into Port Phillip, as indicated by the sea level at Rip Bank being higher than that at Queenscliff. However, the difference in the sea levels at 15:00 EDT is not great and so the tidal stream would not be particularly strong. The strength of the stream increases towards 16:00 EDT, with the maximum flow predicted to occur at 16:57 EDT...

The figures show that the assumed area of operations of the vessel experiences relatively low currents, however, there are much stronger currents to the west, immediately adjacent to the assumed area."

8. The waves conditions were as follows:

[1] Transcript page 11

"During the day on 12 December 2010, the significant wave height off Point Nepean was relatively constant at about 2m...

The significant wave heights in the assumed area of operation are modelled at around 2m and the wave direction is from the west. There are higher wave conditions in the eastern part of the assumed area of operations, north of Point Nepean where significant wave heights approach 2.5m. These are average wave conditions and are the result of a combination of the incoming wave conditions, the seabed topography and the tidal conditions, both elevation and tidal current. As the tidal conditions change, it is likely that changes in the wave conditions may occur relatively quickly. Thus the area of greater significant wave heights indicated in the vessel's assumed area of operation may develop quickly and may vary in position over time."[2]

9. The report provided the following conclusions:-

"Port Phillip Heads is an area of very strong tidal currents and potentially severe wave conditions. Waves approaching from Bass Strait are affected by both the seabed topography as well as the strong tidal currents. These effects can combine to result in marked changes in wave conditions over small distances and in relatively short periods of time. This is especially true of the area around Point Nepean where abrupt changes in water depth can lead to rapid variations in sea conditions.

The metocean conditions in the assumed area of operations of the "MT Ultimate" at the time of the incident on 12 December 2010, around 15:15 EDT, are summarised in Table 4.1.

Table 4.1 Summary of metocean conditions.

Parameter	*Conditions*	*Comment*
Wind	*13-14 knots from the south west*	*Typical summer sea-breeze conditions.*
Tide levels	*Approaching the lower high water for the day which was due at 17:00 EDT, approximately 0.5 m above mean sea level.*	*Exact level not known due to the variability of tidal levels in Port Phillip Heads*
Tidal currents	*Flood tide with increasing strength, slack water at 14:00 EDT and maximum flood at 16:57 EDT*	*Currents in the assumed area of operations are low; however the western end of this area is adjacent to strong tidal streams.*
Waves	*Offshore conditions were close to long-term average for Port Phillip Heads. In the assumed area of operations, significant wave height was around 2 m, increasing towards 2.5 m in the east.*	*Maximum individual waves normally 1.86 times the significant wave height, but may be up to 2 times higher. Location of the highest waves may vary with time due to changes in the state of the tide.*

10. The vessel left the Queenscliff marina and travelled out of the Queenscliff creek area known as 'The Cut' and proceeded in an easterly direction into Port Phillip Bay. From this location Mr Lacey took the vessel towards the north side of Point Nepean, then to Nepean Bay where the vessel slowed so that trawling of fishing lines could commence. The vessel then proceed

[2] Exhibit 21 - Report - Capsize of Vessel MT Ultimate, Oceanographic Conditions Prepared for Office of the Chief Investigator Transport Safety

in an easterly direction along an area bounded the Point Nepean Marine Park. This is a series of yellow buoys located off shore, which prohibit fishing. The vessel made a series of east/west manoeuvres at this location before travelling in a westerly direction to an area known as Point Nepean Bank.

The Characteristics of the Area

11. LSC Robinson gave evidence of his opinion as to the nature of the area in question. He has considerable experience with the Victorian Water Police and a detailed knowledge of the Port Phillips Heads area. His evidence was:-

"In your opinion, what type of a body of water is that? Is it safe? Dangerous?---Well, Your Honour, I have to clarify that, any particular body of water can - can change dependent on certain conditions, depending on the weather conditions, depending on the tide, depending on the current. So there may be certain weather conditions that make the area of Point Nepean Bank perfectly safe for operating in however there are certain conditions and a lot of times where the prevailing weather conditions, the prevailing tides, the amount of current in the area will make it unsafe. Historically the area of Point Nepean Bank is known to be an area where numerous shipwrecks have occurred on the charts that are being displayed. There's references to historic shipwrecks. It's an area that has areas of reef, rock and sand, a combination of the same and it's an area where depending on the level of the tide, the amount of water present, portions of this reef are exposed and then covered over depending on the tide. And the reason that's problematic is because at any one time it can't be clear how much water is beneath the vessel allowing for safe operation. The other reason that it becomes problematic is that the area through - the area through the middle which is in white is the shipping channel, the shipping entrance to Port Phillip Bay and it's very deep water, in excess of 60 metres in places particularly in the area - sorry, Your Honour - - -

HIS HONOUR: That's all right?--- - - - through here. (Demonstrating.) You'll see that that is adjacent to Point Nepean. And where you have water coming through an opening like that, the wind on this occasion was blowing from the south-west which for all intents and purposes is in this direction. So what tends to happen is as the water comes through this area and it goes from being very deep water into very shallow water in a very short space of time, those conditions create a wave action and that's enhanced or also influenced and added to by the wind direction and the currents and the tide at the time. The tide at the time of the incident was what's called a flood tide or a run in tide, so not only was water rushing in there, you had the wind blowing from the same direction at approximately 14 to 15 knots which created in my opinion, unsafe conditions for operation in that area. And it should be noted, sir, that the area of Point Nepean Bank in that local area is a known surf location and surfers generally go to locations where there's decent waves, and while a simple analogy, it does for me identify and highlight the fact that it is an area where waves can occur and has occurred on this case, large waves."[3]

12. As to Mr Lacey's safety preparation for the voyage, LSC Robinson said:

"Mr Lacey conducted a safety briefing where as the summary referred to he covered off areas - areas of operation of the vessel, what they intended to do for the day and I suppose

[3] Transcript pages 15-16

one of the most important things was he discussed how the vessel needed to be trimmed with regards to where passengers were standing because the people moving around on the vessel at any one time can influence the balance, the stability of the vessel as it's in operation, as it's underway. So he covered off with them where he preferred people to stand and he also clarified the role of the deckhands and they went through certain safety procedures, what would occur if in a man overboard situation and what to do in the event of a fire or anything of that nature.

Are they required to sign off on that or is that just a verbal briefing?---As I understand it's only a verbal briefing."[4]

13. At Point Nepean Bank the vessel made a series of east and west tracks approximately 35 to 45 metres to the north of where waves were breaking over Point Nepean Bank. Following the vessel's final loop from east to west, the vessel was travelling in a south to south westerly direction when it rolled and capsized. LSC Robinson's evidence as to the sequence of events leading to the capsize of the vessel was:

"*So my understanding of the incident is that Mr Lacey had turned the vessel in a south to sort of south-westerly direction and on the day in question the waves and the tide were flowing in this direction from the south-west. So a wave has commenced approaching... towards the starboard or the right hand side of the vessel in relation to the direction that it was facing...*

He then has observed a smaller wave, a significantly smaller wave coming from his port or his left hand side which as the vessel is facing that way would be on this side. Now, I would describe that as what's called a refracted wave which is a common occurrence at Point Nepean Bank in certain tidal and weather conditions. So the fact that he described seeing another smaller wave coming from his portside to me does seem plausible because I've observed that refracted wave bouncing back off Point Nepean myself...

The vessel - so the vessel is faced in this direction, we'll call it south to south-westerly direction. This side of the vessel, when you have an approaching wave - this side of the vessel is called the beam or the middle is called the beam and in marine or nautical terminology you don't - ideally you don't want the vessel to be beam on to an approaching wave because what that lends itself to is capsizing.

That means side on?---If the water is - if the wave - if the force of the wave strikes the vessel on the side it tends to roll it over. The ideal position for the vessel for any oncoming wave is for it to have the bow into the wave and to apply throttle in an endeavour to push through or over the top of the wave. So my understanding is that he's observed a wave coming from his port hand side or his left hand side, what I would describe as a refracted wave off Point Nepean but then he also has this swell coming from the starboard or his right hand side and it was coming in this direction, so it was sort of from the front and the starboard side on an angle and he describes it continues to build. And he makes a decision to apply power in an effort to try and ride over the top of this wave that's coming from his starboard side but he also has the issue of the one coming from the left hand side. He's then chosen to turn the vessel towards the smaller of the two waves which has exposed the beam to the wave and the wave has then grown to a size that was so large that it was able to - to pick up the vessel and also remember the vessel wasn't stationary when all this was occurring, he is actually underway doing about four to six knots. So he's underway, the vessel is struck by the wave

[4] Transcript page 14

and it goes over on its side and is actually continuing to stay underway for a short period of time and then it rolls over onto its roof and the capsizing is complete."[5]

14. In summary, the vessel was rolled from starboard to port (right to left), after being struck on the starboard beam by the larger of the two waves Mr Lacey was trying to negotiate.

15. As the vessel rolled over seven customers and two deck hands who were standing in the rear deck area of the boat were thrown into the water. Mr Davies did not manage to extricate himself from the vessel. The operator, Mr Lacey was trapped briefly in the wheelhouse before freeing himself via the starboard side window of the vessel's wheelhouse. Mr Davies drowned between the time the vessel overturned and when he was located by rescuer Mr Bryon Marshall. On being found, Mr Davies was entangled in lines and ropes attached to and within the vessel. The lines were entangled around Mr Davies' legs. He was not wearing a life jacket or a personal floatation device (PFD) when found.

THE INQUEST

16. The death of Mr Davies was thoroughly investigated and ultimately went to inquest. The scope of the inquest and the issues to be covered were succinctly expressed by my assistant, LSC Andrea Hibbins:-

"The scope and issues. The scope of the inquest will be limited to the examination of the following matters: the objective nature of the environment in which the incident occurred and its hazards; the current regulatory regime; the expert opinion provided by Dr David Provis, particularly the recommendations for changes to the existing definition of Port Phillip Heads; the extension to the north and east of the designated area defined as Port Phillip Heads; the local knowledge certificate for Port Phillip Heads including information of the physical oceanographic conditions in particular the waves and tides and especially tidal currents; the safety management system for commercial vessels within a certain range operating in Port Phillip Heads including a requirement for a documented risk assessment for each voyage; the response from Transport Safety Victoria (TSV) to Dr Provis' report and recommendations and further review of action arising from the recommendations."[6]

17. This outline was in the same terms as the information provided by the Court to the interested parties.

18. In her opening, LSC Hibbins went on to say:-

"A review of the definition of Port Phillip Heads has been conducted and new boundaries have been proposed by Dr David Provis. The proposed boundaries would require for the purpose of commercial vessels a local knowledge certificate. It appears the original boundary of Port Phillip Heads definition was similar to the recommendations by Dr Provis. It's not clear when or why the boundaries were changed or redefined but in any

[5] Transcript pages 30, 31, 32

[6] Transcript page 2-3

event they were. If the boundaries as recommended by Dr Provis were implemented the boat would have been within the boundary of defined hazardous waters and the operator/skipper would have required a Local Knowledge Certificate.

At the time of the incident legislation did not require Mr Lacey to have a Local Knowledge Certificate of Port Phillip Heads or a Port Phillip Heads endorsement to transit Port Phillip Heads. He was appropriately licensed and qualified by legislation"[7].

19. Mrs Davies played an active part in the inquest and had, all along, been interested to ensure that something was done to prevent a future occurrence, or at least reduce the likelihood of a similar drowning to that which took her husband's life.

20. Mr Tim Lacey, the coxswain/operator of the vessel on the day, appeared at the inquest but was unrepresented. He did not play an active role. I did not call him to give evidence and he chose not to ask questions (through Counsel Assisting) but submissions were received on his behalf.

21. LSC Robinson prepared the very thorough inquest brief and it contained his detailed statement. He gave evidence consistent with that statement.

The Coxswains qualifications

22. LSC Robinson's evidence as to Mr Lacey's qualifications was:-

"Tim Lacey at the time was a licensed coxswain having had that qualification for some eight years and that qualification entitled him to operate in what were classified at the time as 1D sheltered waters which is the area inside Port Phillip Bay and also 1C waters which is 15 nautical miles from the coast and there's limitations on the size of the vessel we can operate, it has to be less than 12 metres and the engine capacity has to be 250 kilowatts or less per engine which was appropriate and applicable for the vessel he was operating on the day."[8]

The Local Knowledge Certificate

23. LSC Robinson stated that the vessel was in fact 10.5 metres long. In relation to the requirement for a Local Knowledge Certificate, his evidence was:-

"To exit the heads or transit the heads a Port Phillip Heads endorsement is required but the area of operation at the time of the incident and at the time of the capsizing, the vessel was not transiting Port Phillip Heads. it was north of the boundary of what is deemed to be Port Phillip Heads, so he was operating in the area in which he was licensed to operate.
He didn't hold a Port Phillip Heads endorsement?---No, he does not."[9]

24. Clearly Mr Lacey was not required to do so.

The Issue

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[7] Transcript page 2-3

[8] Transcript page 10

[9] Transcript page 10-11

25. The question is whether the Port Phillip Heads area should be re-defined so that operators of vessels operating within it, including the area in which The Ultimate capsized, would be required to have a Local Knowledge Certificate. If redefined, to include a larger area of the seaway at Port Phillip Heads, there would be a requirement for a greater knowledge and expertise on the part of those operating commercial vessels within an area that is known to be a hazardous, often dangerous.

Certificate of Survey

26. In relation to the Certificate of Survey[10] – applicable to the 'The Ultimate', LSC Robinson's evidence was that there was a current Certificate applicable to The Ultimate at the time and that the Certificate contained conditions applicable to the operation of the vessel in the Port Phillip Heads area. It was required to operate in accordance with specified regulations. Those regulations prohibited commercial vessels over 12 metres carrying passengers out to sea by transiting the Heads in certain specified weather conditions.

Safety Plans

27. He also gave evidence of the requirements relating to the Safety Plans which are prepared for Marine Safety Victoria[11]. He confirmed that such plans are required to be lodged when a vessel will be transiting Port Phillip Heads.

28. His evidence was that Gamerec, the operator of The Ultimate, had prepared a safety plan for Marine Safety Victoria which had been previously lodged when the vessel was named "The Ultimate Diver". The lodgement or submission of a safety plan in respect of this particular voyage was not strictly within the scope of the inquest, but in any event, a safety plan was not required for the charter trip during which Mr Davies lost his life.

Changing the defined boundary and enlarging the area of Port Phillip Heads – the Provis Proposals

29. There was consensus at the inquest as to the need to change the current boundary of the Port Phillip Heads area. It was agreed that the current boundary, an imaginary line between Point Lonsdale and Point Nepean straight across the heads, with an arc 3 nautical miles out from the Point Lonsdale light (see Map 2), does not promote public safety.

30. The investigation into Mr Davies' death was greatly assisted by the work of Dr Provis. The evidence for both Dr Provis and Mr Adrian Mnew was particularly helpful. Dr Provis has

[10] Exhibit 10

[11] Exhibit 15

prepared a very detailed report. In it he set out his qualifications[12] and I accept his expertise for the purposes of qualifying him to express opinions about the oceanographic characteristics of the area.

31. His first report dealt with the oceanographic characteristics of the area in question and his second dealt with the definition of the Port Phillips Heads area, the Local Knowledge Certificate issue and Safety Management Systems issue. He reached a series of clear conclusions on each matter. He explained the operation of the tidal flows in detail. He did this by reference to varying depth and water speed depending on the stage of the tide.

32. Dr Provis proposes a re-alignment of the Port Phillip Heads boundary. This is best understood by reference to the maps in his report, and I attach them to this finding. His recommendation is that the northern/eastern boundary line should run from the area of Shortland Bluff on the western side to Observatory Point on the eastern side of the Heads. He explained his rationale as follows:-

" The rationale for that is that anywhere in this area inside that line, if a boat had an engine failure it's within several tens of minutes but not very long, it can be in the midst of the maelstrom, the very rough water that is in Port Phillip Heads. So I think running a line from Point Nepean to Shortland Bluff doesn't help, it doesn't guide a boat operator who might be in this area because on an ebb tide very, very quickly he can get carried into this area where there are nasty waves. And I guess there are two - two aspects that I think are important when coming up with this definition, one is for the safety of people who pay money to go out on boats, I think there's a duty of care, a duty of safety that the community has to say that the rules are such that people are safe. But I think it also provides a guidance and some sort of - sends a message to recreational boaters. If you say that the line is from there to there and that's called Port Phillip Heads, there's an implication in that that, "I'm safe mucking around in my boat in here," but I don't think that's true because you are in very close proximity to an extremely dangerous area and you can be carried into that area very quickly. So that's the rationale for bringing the line back. As the actual definition of the line that's a matter I think of something that is easily observable when you're on the water and well defined."[13]

33. In essence, his view was that maximising the area, but doing so rationally and in a clearly identifiable and understandable way, promoted public safety. He said he couldn't "*see the point of excluding the bit around Shortland Bluff unless there's some very good reason*"[14]. In referring to the area immediately north of Point Nepean, (the area in question in this case), and to the east of it, he said:-

"*Because if something happens and that could simply be the operator being distracted. They look down to answer their phone or something like that, with a strong current them*

[12] Inquest brief page 346

[13] Transcript page 58

[14] Transcript page 59

they can be out of position and in an area of danger very quickly. I think by defining Port Phillip Heads further to the east you're raising a flag at least to say "Be careful in this area, keep your wits about you. This is not safe."[15]

34. In relation to the requirement for a Local Knowledge Certificate applicable to the Port Phillip Heads area, his evidence was that in his view a Certificate should be required for those operating commercial vessels (of any length) and carrying passengers in that area. This is because of the unique physical/oceanographic conditions, in particular the waves and tides. He gave compelling evidence on this issue and I accept it.

35. He highlighted the force of the waves and the power of the tidal currents. He further emphasised the need for those operating in the area to be aware of not just of the tides but of the speed of water movement. He made the point that mariners operating there need to understand the effects of the tidal currents. He pointed out the significant difference between the dangers associated with not understanding an ebb tide as opposed to not understanding a flood tide. As he said: *"... the waves on an ebb tide are significantly more dangerous than on a flood tide."*[16]

36. To quote him further:-

"Local knowledge around Point Nepean, the complexity of the waves there and the issue there is that they can change very rapidly, as the tidal currents change, as the direction of that tide changes the wave height can change very markedly. You can get an area where at one stage the tide is low enough for the waves to be breaking on the Bass Strait side, as the tide rises those same waves will suddenly come over that reef possibly from a different direction from what you might be expecting. Waves are also wrapping around Point Nepean so they can be coming from almost the opposite direction than they started from. Not quite but very close to. These sorts of features are the things which I believe need to be in the Local Knowledge Certificate for Port Phillip Heads."[17]

37. Mr Mnew and LSC Robinson both agreed with Dr Provis' assessment of the risks within the relevant area, the need to redefine the boundary, and the appropriateness of Dr Provis' recommended boundary line alignment.

<u>The evidence of Mr Adrian Mnew</u>

38. Mr Mnew is a chartered engineer, naval architect and has been a vessel master over many years. He also prepared a report for the inquest. He is the Deputy Director of Transport Safety Victoria (TSV) with a responsibility for vessel safety and for the national system for domestic commercial vessels. He gave evidence of a review by TSV of commercial operations in the area of the incident.

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[15] Transcript pages 59-60

[16] Transcript page 61

[17] Transcript page 61

39. He gave evidence of a review of being conducted by:- *"all the local knowledge waters – required water for the Victorian coastline."*[18]

40. He gave the reason for the review as the change in 2012 from the Victorian Marine Safety Act to the applicable national law, administered by the national regulator. The consequence of this is that the actual regulatory oversight of the domestic commercial fleet throughout the whole of Australia is now with the national regulator, the Australian Maritime Safety Authority.

41. He gave details of the current review. He stated that the review is based on an assessment of risk. The relevant evidence was:-

"... the review is based on a risk basis, it's taking a look at all the navigational safety risks posed to any of the locations where local knowledge is currently required or even places where it might not be required at the moment that we think, you know, that there is a view that it could be required. We're looking at all of those against a set of risk based criteria very similar to some of the criteria that Dr Provis has already given us evidence about and Mr Ranasingha, such things as wave height, tide speed, direction, topographical issues, navigation, congestion, a whole load of issues, they'll be taken into account in the review and it will be then decided if an area of waters justifies in any way the imposition of local knowledge style requirement."[19]

42. He made the point that persons operating domestic commercial vessels are licensed mariners and had Certificates of Competency. There are times however, when even that level of knowledge needs to be supplemented by additional particular knowledge relevant to a specific area.

43. The rationale for the requirement for a Local Knowledge Certificate is obvious when an area of water,

"...has a special set of characteristics which have a higher risk profile in terms of their navigational safety knowledge. That then - you would compare that against what would be expected to be known of a master operating his vessel in that area, if his knowledge that he would have doesn't cover that, that's what you would require your local knowledge for. So that is the underlying rationale behind why we are looking to review this and to see if, you know, where these areas are appropriate and in fact..."[20]

44. In relation to the Port Phillip Heads area, he confirmed that this area is under review as part of the broader review. He noted the current definition as the imaginary line between Point Nepean and Point Lonsdale.

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[18] Transcript page 89

[19] Transcript page 92

[20] Transcript page 94

45. He emphasised the need for vessel operators to have specific and high level of local knowledge. He referred to the busyness of Port Phillip Heads area, reports from pilots and vessel masters and said:-

"So the risk profile of the whole area has gone up even from a few years ago and will probably you know, with the developments of the port et cetera, increasingly do so. So that's another reason why one of the other criteria for requiring local knowledge is the ability to stay clear of the large ships who can't go anywhere, they're absolutely stuck on a track, so people need to know that that's the case."[21]

46. On being asked specifically as to whether he agreed with Dr Provis' recommended boundary his evidence was:

"I think I'd be prepared to accept that we will certainly take that into account in our risk evaluation, because that's all we're doing, we're looking at it from the point of view of a set of criteria which we're consistently applying up and down the whole coast."[22]

47. He described in detail the matters that the review will take into account and the proposed consultative process. Ultimately, he agreed with that Dr Provis' conclusion regarding the existing boundary definition. He agreed that it ought to be changed. This was put to him:-

"The existing definition is no longer appropriate and it's a question of what the definition should be. That's where your review is at?---That's correct."[23]

48. In relation to the timeframe of the current review and proposed consultation, he confirmed that it was expected that the review would be completed by July 2015. He then informed me that changes can be made by way of gazetted changes without the necessity of legislative change. He noted that the legislation already allows these waters to be dealt with locally. As he said:-

"...under the Victorian Act, it doesn't have anything to do with the national Act so we don't have to go back to Canberra we can set these particular requirements ourselves for the designation of waters and also for what you need to know when you're transiting those waters. That's on top of whatever the federal government does nationally for its regulation of mariners et cetera. Okay?"[24]

49. Mr Mnew gave a historical synopsis of the changes brought about in 2012 when the Maritime Safety Act 2012 came into effect. He said that it incorporated a safety based approach to the legislation. He referred to the Victorian Safety Act 2012, which placed safety duties on a range of responsible persons. He outlined the regulatory requirements and matters of compliance. He believed that in the case of this particular charter, the regulator of

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[21] Transcript page 95

[22] Transcript page 96

[23] Transcript page 98

[24] Transcript page 110

this activity "*at the front line is the owner, so we'd expect the owner to understand what the modus operandi for the day is going to be in some way.*"[25]

50. The evidence in this case revealed the extremely surprising fact, as Mr Mnew made clear, that prior to 1 September 2005, the boundary ran from Point Nepean to Shortland Bluff. It changed on 1 December 2005, to an imaginary line between Point Nepean and Point Lonsdale.

51. He made the point that the wider boundaries lasted a mere four months, having been enlarged on 16 September 2005, and wound back again to the current area (defined by the direct imaginary line from Point Nepean to Point Lonsdale with the arc out to sea), on 1 December 2005. On that date it reverted to straight line from Point Lonsdale to Point Nepean. He could not explain why those changes had been made.

52. He agreed that the boundaries proposed by Dr Provis would enclose all areas of waters which had been under discussion in the inquest, and that they would be viable boundaries. Given Mr Mnew's role in the TSV Review process, and the fact that the review had not concluded at the time of the inquest, I can understand that he was less prepared to be categorical in his views and recommendations than the independent expert, Dr Provis. Nonetheless, I found Mr Mnew's evidence to be extremely helpful.

53. In relation to the review about the Local Knowledge Certificate requirements, he stated that it was "*well advanced*"[26] and expected to be completed by July 2015. In relation to the consideration of the existing definition of Port Phillip Heads and the boundary, he confirmed that this was: "absolutely" part of the review, and as to completion of the review, he stated: "*I can tell you we'll proceed with alacrity and we are doing and our recommendations will be completed in July.*"[27] I accept Mr Mnew's evidence as to each of these matters.

Safety Management Plans

54. Dr Provis put forward a proposal on this matter, although I note that he did not claim to be an expert on it. LSC Robinson is, for the purposes of this case, in a position to give expert evidence on the point and I note that he agreed with Dr Provis' proposal. I accept and agree with the evidence of LSC Robinson that accountable safety planning is extremely important. His evidence was:-

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[25] Transcript page 107

[26] Transcript page 119

[27] Transcript page 120

"So that involves planning where you intend to operate, what hazards are known in that area, what hazards you could encounter, the weather at the time, the tide conditions, the current conditions at the time and the wave conditions at the time. And these matters are documented and retained or lodged somehow with TSV whether it be electronically - sorry, Marine Safety Victoria - Transport Safety Victoria, and that they be lodged, whether they be retained by the operators for record or whether they're lodged electronically through some means.

And that's before each charter?---Before each charter is undertaken.

Is that what happens now? Can you explain what occurs now?---I don't believe that's what occurs presently...

In your opinion is it a good or a bad idea?---A review in relation to the definition?

No. The definition of the Safety Management System?---Yeah, I certainly think it's a good idea. It's something that just documents and places a greater degree of responsibility on the operator, on the coxswain or the skipper in relation to his risk assessment of the area that he's going to be operating in, and it also shows, you know, that he's considering all the possible things that can influence the vessel and potentially negatively impact upon it."[28]

SUBMISSIONS

55. I have received submissions from the family of Mr Davies. It is submitted that I should find that Mr Lacey's decision to steer the vessel into the area where it capsized, was dangerous. The issue of whether Mr Lacey caused or contributed to Mr Davies' death, was not strictly within the narrow scope of the inquest. Mr Lacey was not represented, although he did attend, but gave no evidence. I do not make a specific make a finding as to cause or contribution to the death on the part of Mr Lacey, given the scope of the inquest.

56. I have received a letter from Maritime Safety Victoria (MSV)[29], written by Mr Mnew, and dated 24 July 2015. This was forwarded to the Court by way of a further submission.

57. In his letter, Mr Mnew set out a history of the regulation of domestic commercial vessels in Victoria. He noted that the Marine Safety Act 2010 (Vic) (MAS) and the supporting Marine Safety Regulations 2012 (Vic) (MSR) applied at the time and were administered by the Director, Marine Safety, supported by Marine Safety Victoria. Marine Safety Victoria is a branch of Transport Safety Victoria (TSV). He noted further that upon the signing of the Intergovernmental Agreement in August 2011, the Marine Safety (Domestic Commercial Vessel) National Law Act 2012 (Cth) (the National Law) applied and it took effect on 1 July 2013. The introduction of the National Law has changed the regulatory environment, however, the MSV continues:

[28] Transcript pages 24-25

[29] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety

"to undertake the bulk of operational regulatory activities in Victoria, pursuant to delegations from Australian Maritime Safety Authority (AMSA). He noted further that the MSV "continues to undertake a range of marine safety regulatory activities in its own right, relevantly including designation of waters, local knowledge requirements and requirements for vessels conducting particular operations".

58. This last point is important in respect of the issue of local knowledge which played an important part in the inquest. In this context, Mr Mnew's letter points out that the National Law differs from the MSA in some ways, but:

"is substantially the same in its regulatory approach in that it places primary responsibility for managing safety on vessel operators and encourages a systemic risk management approach reliant on competence-based permissioning, general safety duties and safety management systems (SMSs)."[30]

59. As Mr Mnew notes, the *"crucial roll of SMSs in contemporary marine safety regulation"* was under examination at the inquest.

60. Mr Mnew puts the SMSs in the context of the relevant National Standards for Commercial Vessels (NSCV) which require vessel operations to be conducted safely, for risks to be reduced where reasonably practicable and to ensure rapid and efficient responses to emergencies.

61. He pointed out the following relevant operational requirements including risk assessments:-

"A risk assessment of the operation of the vessel must be carried out that identifies the following:

- *(a) key daily tasks to be performed by all crew members'*
- *(b) any potential risks involved in the conduct of any task that may expose the following to unacceptable risks:*
  - *i) the vessel;*
  - *ii) the operational environment of the vessel;*
  - *iii) persons on or near the vessel*
- *(c) the appropriate crew for the vessel;*
- *(d) a person to be responsible for ensuring that actions needed to correct any identified potential risks are carried out.*

Examples of potential risks for paragraph (b)

1. *vessel state or repair*
2. *crew fatigue*
3. *smoking*
4. *alcohol consumption.*

The risk assessment must be reviewed if:

- *(a) the vessel undertakes an operation that differs from that normally undertaken by the vessel; or*
- *(b) the master of the vessel considers that the risk to the safe operation of the vessel may have increased or decreased.*
- *(c) The risk assessment must be documented and the document kept up to date."*[31]

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[30] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety

[31] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety, pg 3

62. Mr Mnew's letter goes on to explain the role of the National Law in relation to the SMSs. He then says:-

"Both the hearing and Dr Provis' written reports included discussion of SMSs for operations in Port Phillip Heads requiring some form of voyage or safety plan for each voyage. This plan would include a risk assessment of the operating conditions on the day in questions and be documented for audit purposes. MSV supports this in principle and is of the view that the current SMS framework allows for that requirement where the risk profile of the operating environment warrants it. However, under the National Law, a decision to implement a voyage-specific safety plan would need to be made by AMSA as the National Regulator."[32]

63. I note the MSV supporting principle for the proposal that there be *"some form of voyage or safety plan for each voyage."*[33] This is entirely consistent with the opinion of LSC Robinson. I note Mr Mnew states that, *"under the National Law a decision to implement a voyage-specific safety plan would need to be made by AMSA as the National Regulator."*[34]

64. It seems clear to me that the "risk profile of the operating environment" in question, the Port Phillip Heads area, warrants the implementation of voyage specific safety plans. It is not clear from Mr Mnew's letter whether AMSA has or will made a decision to implement a requirement to that effect. I will recommend that it does so.

65. In relation to the issue of Local Knowledge Certificates, Mr Mnew notes that at the time of the incident, the requirement to hold a Local Knowledge Certificate for navigation within the Port Phillips Heads area applied only to trading vessels of greater than 12 metres in length. As I understand it, this remains the position. Mr Mnew helpfully points out that:-

"the commencement of the MSA and MSR broke the connection between the definition of "Port Phillip Heads" in the MSR and the scope of the requirement for masters to hold a local knowledge certificate."[35]

66. Mr Mnew then goes on to make the key point that although the MSV agrees in principle with the suggestion that the definition of Port Phillip Heads area should be broaden (consistent with the recommendation of Dr Provis):-

"it is important to note that the changes will not of itself extend the scope of the local knowledge requirement for Port Phillips Heads. Rather, the latter change will require a fresh declaration of local knowledge waters under section 81 of the MSA."[36]

67. I note also that the MSV is reviewing the local knowledge scheme to determine:-

- Which areas the requirement for masters to hold a local knowledge should apply to.

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[32] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety, pg 4

[33] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety, pg 4

[34] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety, pg 4

[35] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety, pg 5

[36] Ltr dated 24 July 2015, Mr Adrian Mnew, Acting Director, Maritime Safety. Pg 5

- Which classes (including size) the requirements should apply to.
- What training and assessment requirements applicants should be required to fulfil.

68. I note that as a matter of process, it will then be a matter for the Director, Transport Safety to make a "*fresh declaration of local knowledge waters under Section 81 of the MSA to implement findings of that review.*"

69. Given the evidence I have heard, and the unanimous support for broadening of the Port Phillips Heads area, it follows as a matter of logic that there should be a requirement for a Local Knowledge Certificate within that broadened area. I appreciate that it will be a matter for the Director to make the relevant declaration under Section 81 of the MSA. Give that the evidence in this case and the findings I have made I intend to recommend that the Director make a declaration under Section 81 covering, at least: the areas where requirements for masters to hold a local knowledge certificate should apply; and, which classes of vessel (including size) the requirement should apply to. In my view the recommendation should apply to all vessels, not only those over a certain length.

COMMENTS

70. The current definition of Port Phillip Heads is inappropriate and does not promote public safety. The expert evidence at inquest was unanimous - an expanded definition should be applied. It is difficult to understand why a wider definition of the Heads which applied up to 2005 was narrowed, and the Point Lonsdale to Point Nepean boundary line applied. The only evidence explaining the change was that provided by LSC Robinson:

"Yes, I believe - that was - that was the previous definition and then it was changed around about 2005 and I believe that the change coincided with the introduction of new life jacket laws that had occurred and that that was when the definition was changed."[37]

71. The change in 2005 did not promote public safety.

72. There is a powerful case for an extension of the current boundary of the Port Phillip Heads area. Attached map number 2, sets out an extract from Chart AUS144 illustrating the current definition of Port Phillip Heads. Its northern boundary is the line between Point Lonsdale and Point Nepean. I intend to recommend that this boundary be realigned in accordance with the recommendation of Dr Provis, strongly supported by LSC Robinson. Dr Provis' proposal was supported also by Mr Mnew.

73. The boundaries of the Port Phillip Heads area should include hazardous areas that are currently excluded. It was in one of those areas that The Ultimate capsized. The definition of

[37] Transcript page 21

the Port Phillips Heads area should be redefined. The northern (inshore) boundary line should be shifted to a position well east and north of the current northern boundary (the imaginary line from Point Nepean to Point Lonsdale), maintaining the offshore area outside the Heads defined by the 3 nautical mile arc out from Point Lonsdale.

74. It is clear that Local Knowledge Certificates are critical. An operator/coxswain in the position of Mr Lacey needs to have a thorough and detailed knowledge of the area of operation including how quickly conditions can change, and to what extent. The greater the local knowledge, the lower the risk of an accident. Mr Lacey may have underestimated, or not understood the possibility of waves and tides combining to create the hazardous conditions he confronted. He needed to make an informed, but split second, judgement call in an area well known for its hazards.

FINDINGS

75. Mr Davies died by drowning when the vessel The Ultimate accidently capsized in hazardous conditions on 12 December 2010 in the vicinity of Corsair Rock, Port Phillip Bay.

RECOMMENDATIONS

Pursuant to section 72(2) of the **Coroners Act 2008**, I make the following recommendation(s) connected with the death:

I make the following recommendations to Marine Safety Victoria, and where applicable, to Australian Maritime Safety Authority (AMSA).

1. That the definition of the Port Phillip Heads area be widened and extended. I recommend that the inshore boundary of Port Phillip Heads be as proposed by Dr Provis. I attach a map (Map 3), setting out the alternative lines which would mark the boundary to the north and east of the current imaginary line running between Point Lonsdale and Point Nepean.

   The inshore boundary should be an imaginary line between Shortland Bluff and Observatory Point; alternatively it could be an imaginary line between Shortland Bluff, Popes Eye and then onto Observatory Point. A further alternative could be from Shortland Bluff to the Monash Light (although this would be a more complicated solution).

2. I recommend that the Director, Marine Safety Victoria and/or Australian Maritime Safety Authority (AMSA) as the National Regulator, implement a voyage specific safety plan requirement for all commercial vessels/voyagers within the expanded Port Phillip Heads area.

3. I recommend that the Director, Marine Safety Victoria make a declaration pursuant to section 81 of the *Marine Safety Act 2010 (Vic)*, declaring the expanded Port Phillip Heads

area as waters for which commercial vessel masters/coxswains are required to hold a Local Knowledge Certificate. The declaration should specify that the Local Knowledge Certificate requirement apply to commercial vessels of all sizes, and specify training and assessment requirements to be fulfilled by vessel masters/coxswains.

I extend my sincere condolences to the family of Mr Leigh Davies.

I direct that a copy of this finding be provided to the following:

Mrs Marjorie Davies
Peterson Lawyers
Holman Fenwick & Willan on behalf of Gamerac Charters Pty Ltd
Dive Victoria Group Pty Ltd
Maurice Blackburn Pty Ltd on behalf of Mr Daniel Tottle
Tony Hargreaves & Partners
Maritime Safety Victoria
Transport Safety Victoria
Australian Maritime Safety Authority
Mr Stephen T Russell, Barrister on behalf of Mr Tim Lacey
Leading Senior Constable J Robinson
Leading Senior Constable A Hibbins

Signature:

JUDGE IAN L GRAY
STATE CORONER
Date: 29/9/2015

APPENDICES

MAP 1

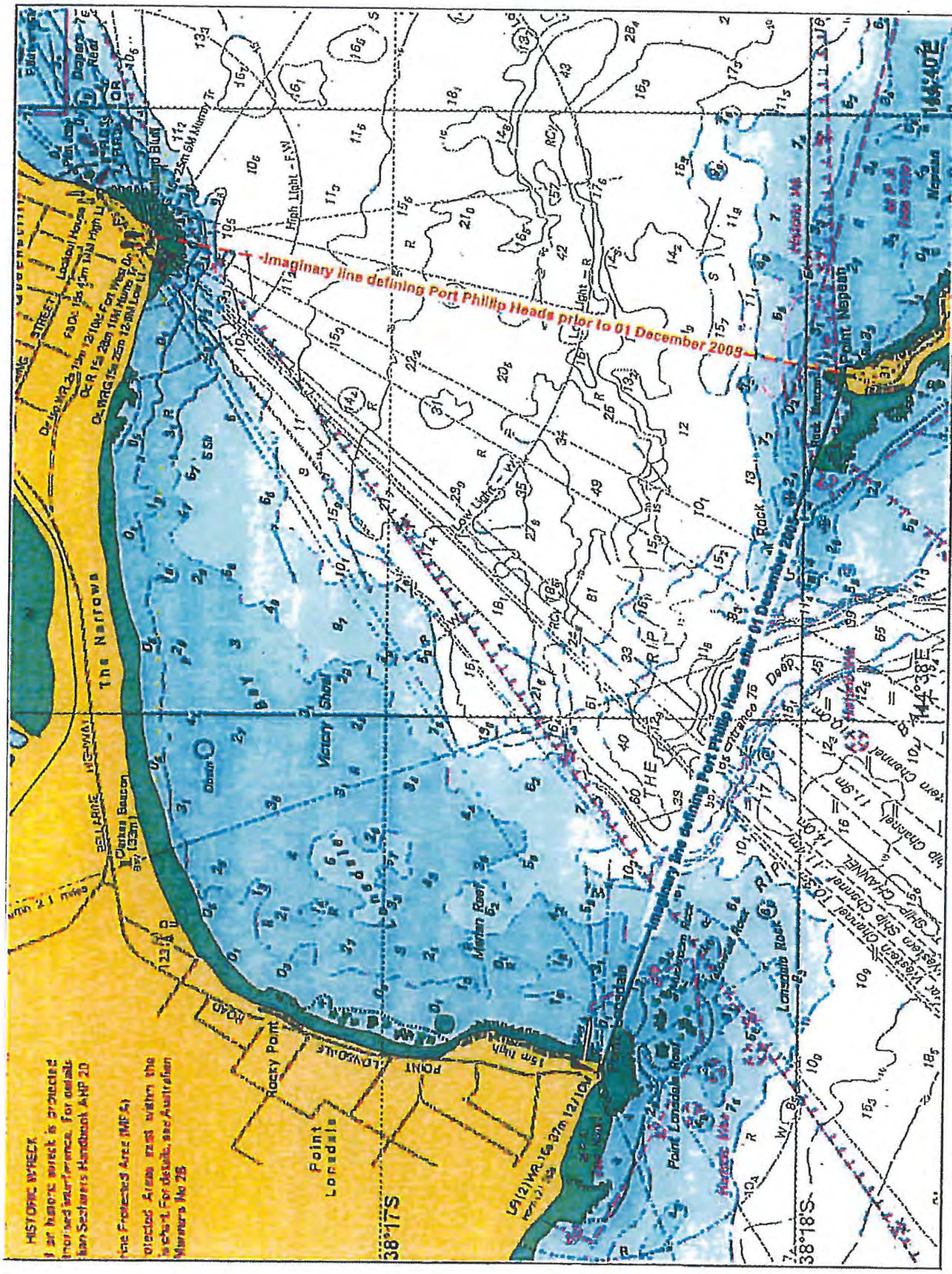

Figure 14 - Chart indicating definition of 'Port Phillip Heads' before and after 1 December 2005

MAP 2

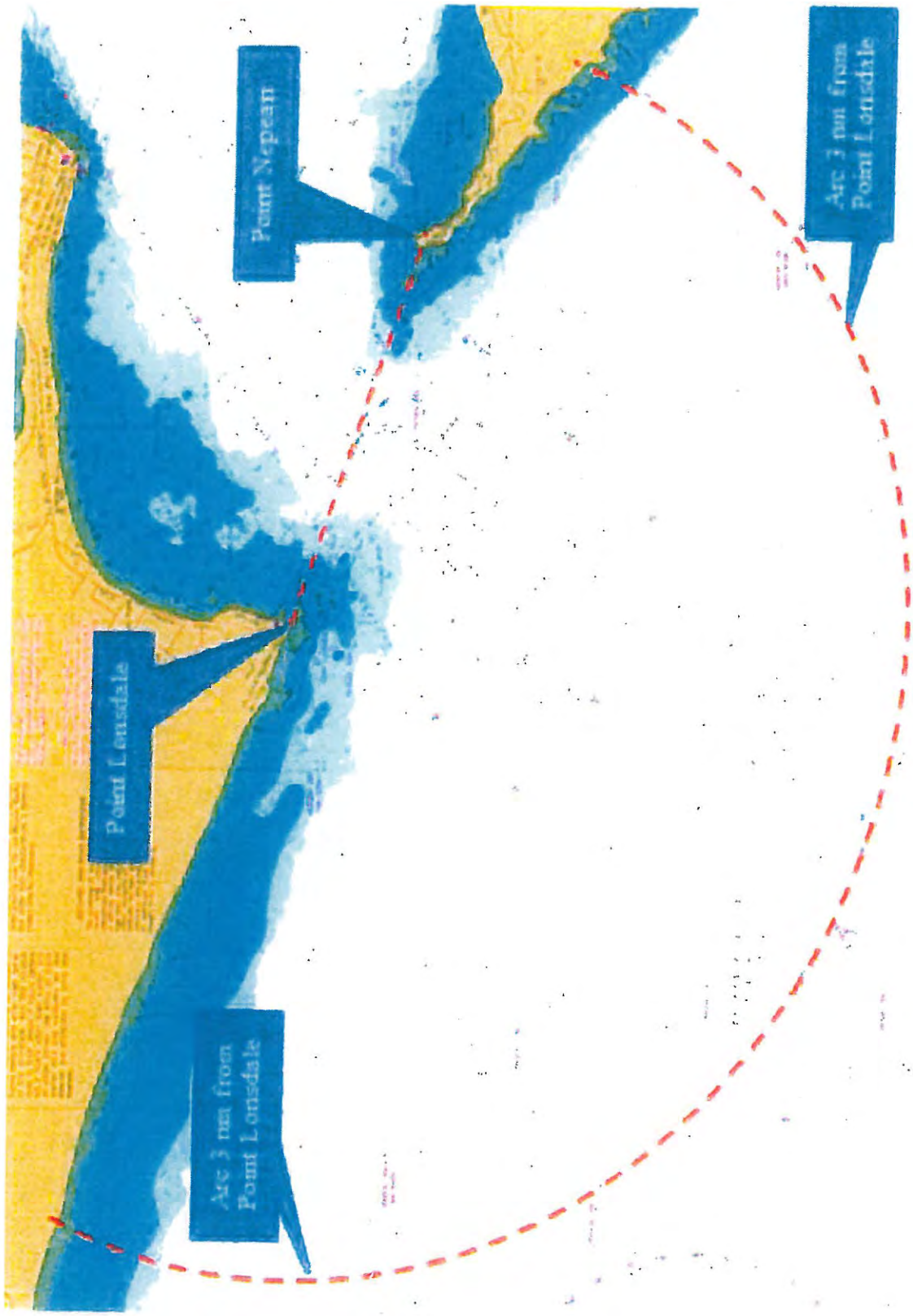

Figure 1 Extract from chart AUS 144 illustrating the definition of Port Phillip Heads.

MAP 3

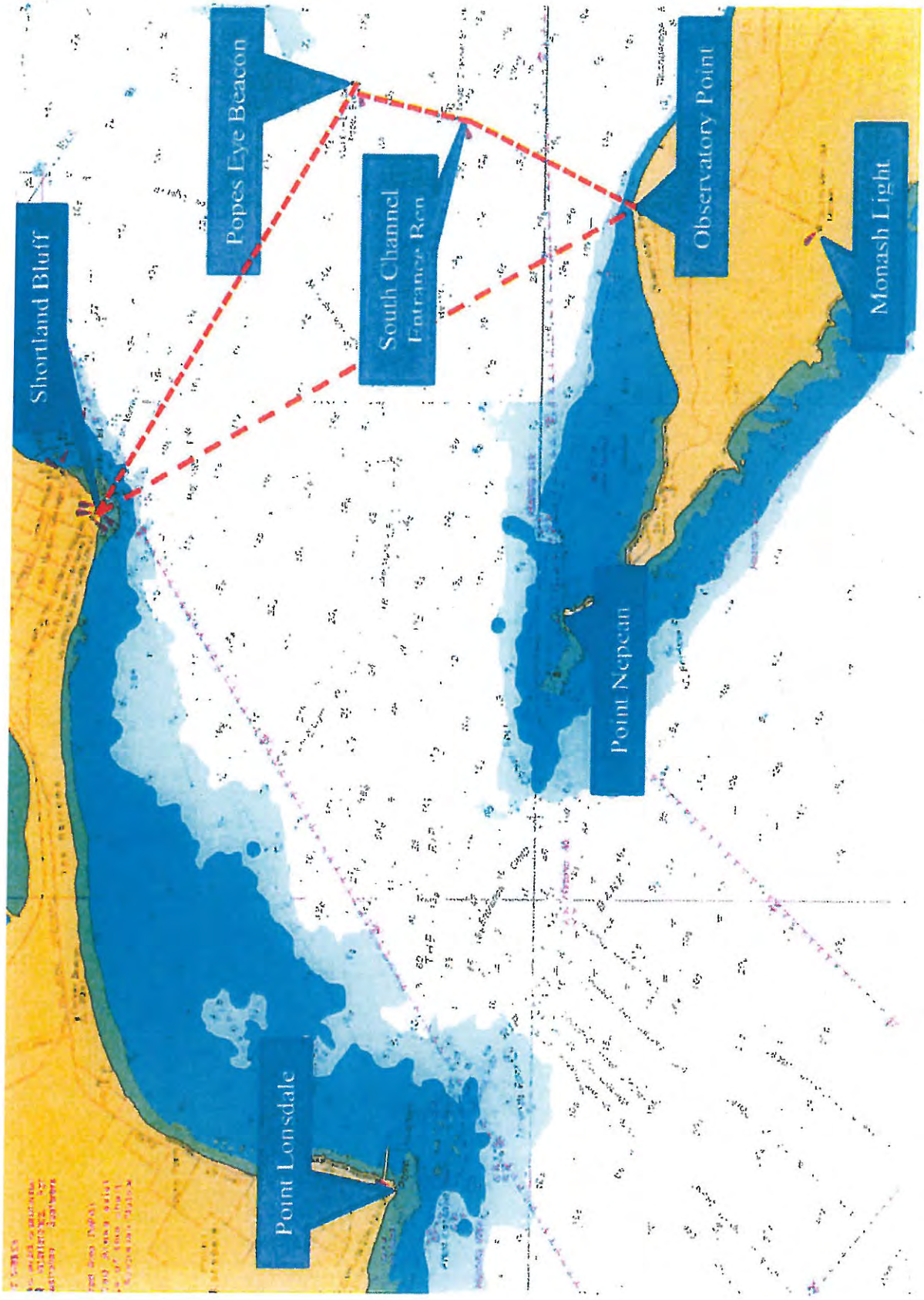

Figure 5 Options for the inshore boundary of "Port Phillip Heads"