Coroners Act 1996
[Section 26(1)]

Western *Australia*

RECORD OF INVESTIGATION INTO DEATH

Ref: 35/15

I, Sarah Helen Linton, Coroner, having investigated the death of ***Gonda (aka Connie) Alexandra SMITH*** *with an inquest held at the* ***Perth Coroner's Court, Court 51, CLC Building, 501 Hay Street, Perth*** *on* ***23 and 24 September 2015*** *find that the identity of the deceased person was* ***Gonda (aka Connie) Alexandra SMITH*** *and that death occurred on* ***14 July 2012*** *on* ***Marble Bar Road, approximately 20 kilometres north of Nullagine*** *as a result of* ***multiple injuries*** *in the following circumstances:*

Counsel Appearing:

T Bishop assisting the Coroner
B Nelson (State Solicitor's Office) appearing on behalf of WA Country Health Services
B Burke and M Nguyen (Australian Nursing Federation) appearing on behalf of Nurse Helen Collinson
D Bourke (Clayton Utz) appearing on behalf of the Royal Flying Doctor Service

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INTRODUCTION

1. Gonda Alexandra Smith (the deceased), who was more commonly known as Connie by those who knew her, worked as a remote area nurse at the Nullagine Clinic. Nullagine is a small town in Western Australia's Pilbara region. It is located on the Marble Bar Road, between Marble Bar and Newman.

2. During the evening of 14 July 2012, the deceased was involved in a 'head on' traffic collision while transporting a patient in the Nullagine Clinic vehicle. She suffered fatal injuries in the collision and died at the scene.

3. The circumstances of the death raised the possibility that fatigue may have been a contributing factor to the death and prompted questions as to what level of support is provided to remote area nurses to avoid work-related fatigue. To address those concerns the Acting State Coroner concluded that it was desirable to hold an inquest, pursuant to s 22(2) of the *Coroners Act 1996* (WA).

4. I held an inquest at the Perth Coroner's Court on 23 and 24 September 2015. The focus of the inquest was primarily directed towards establishing the factors that contributed to the collision. Evidence was heard about the deceased's working conditions generally, as well as her specific work demands in the days leading up to the crash, to assist in determining whether work-related fatigue was one of those factors.

5. The documentary evidence included a comprehensive brief of evidence prepared by the Western Australia Police,[1] together with three additional exhibits tendered by counsel assisting.[2] A number of witnesses were also called to give oral evidence at the inquest. I took all of this information into account in preparing this finding.

THE DECEASED

6. The deceased was born on 4 October 1947 in Holland and moved to Australia as a child. She finished high school in Western Australia in 1965 and then completed a Diploma in General Nursing through The Government School of Nursing. She later obtained a Midwifery Diploma and Neonatal Intensive Care Diploma. She also completed additional studies with various Western Australian universities and organisations.[3]

[1] Exhibit 1.
[2] Exhibits 2 – 4.
[3] Exhibit 4.

7. The deceased worked as a general nurse and a midwife at various hospitals in Perth and as the matron in Tom Price. The deceased also worked for a period of time with a missionary organisation in Papua New Guinea.[4]

8. The deceased was married for several years and had two sons. The deceased was very involved with her sons' upbringing, helping out at their school during their school years as well as attending their out of school activities.[5]

9. In 2006, the deceased moved to the Northern Territory and ended up running the nursing post in Kings Canyon. She eventually moved back to Western Australia in 2009 and took up various roles as a remote area nurse. She preferred emergency nursing and working independently, and was able to develop good relationships with the Aboriginal people in the local communities, so remote area nursing suited her well.[6]

10. Separate to her work and family, the deceased enjoyed travelling, particularly in her four-wheel drive, and did many trips throughout Australia as well as trekking in places such as New Zealand and Nepal. She was also a keen photographer, and enjoyed showing photos of her travels to family and friends.[7]

THE NULLAGINE CLINIC

11. The Nullagine Clinic (the clinic) services the Nullagine local community and is the only health service within around a 200 km radius. The town is an old gold rush town, with a fluctuating population due to local events and the presence of mining teams, and is the place of the Irrungadji Aboriginal community. Approximately half the population of the town are Aboriginal people.[8]

12. The services provided by the nurse attached to the clinic to the Nullagine community include:
    - Primary health care services for the community, such as immunisation, dispensing of medications and antenatal and postnatal care;
    - Emergency services, such as assessment and treatment of acute pain, and arrangement of medical evacuation out of Nullagine for treatment in hospital, where necessary;

[4] Exhibit 4.
[5] Exhibit 4 and email to Counsel Assisting dated 10 December 2015 from the deceased's sister.
[6] Exhibit 4.
[7] Email to Counsel Assisting dated 10 December 2015 from the deceased's sister.
[8] Exhibit 1, Tab 40, Attachment 6.

- Assisting with the Royal Flying Doctor Service (RFDS) weekly medical clinics;
- Assisting visiting medical specialists and allied health practitioners;
- Monitoring school health and child health issues;
- Working with the Department for Child Protection in relation to any 'at risk' children;
- Liaising with the Aboriginal medical services at Jigalong; and
- Liaising with the visiting community mental health, drug and alcohol services.[9]

13. The clinic is managed by WA Country Health Service (WACHS) Pilbara.[10]

14. According to WACHS, in 2011, nurses working at the clinic were rostered to work in the clinic between 8.00 am to 5.00 pm Monday to Friday. The clinic was closed for an hour for a lunchbreak, except for emergencies. Outside of these hours, the nurse was on call seven days per week for emergencies only within the town. If the clinic wasn't staffed, then there was a sign referring people to the Marble Bar clinic, to 000 for emergencies and/or to HealthDirect.[11]

15. There was (and still is) no St John's Ambulance service in the town, nor in Marble Bar, so the nurse provided the emergency transport service for the community.[12]

16. If a nurse had been busy, particularly with afterhours work at night or on the weekend, they were encouraged to place a notice on the clinic closing it for a few hours or the whole day and divert the phones, in the same way as noted above.[13]

17. As both the Nullagine clinic and Marble Bar clinic were single nurse posts, it was a priority of WACHS to ensure the safety of the nurses working there. Clients were encouraged to attend the clinic to see a nurse. Occasionally, however, the nurses were required to visit clients in the community. On these occasions, the nurses were required to undertake a risk assessment of the environment and liaise with police if they needed assistance. They were also encouraged to text or call the Regional Nurse Director or the After Hours Nurse Manager if they were leaving the clinic to go out of town.[14]

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[9] Exhibit 1, Tab 38.
[10] Exhibit 1, Tab 38.
[11] Exhibit 1, Tab 38.
[12] Exhibit 1, Tab 40 [8].
[13] Exhibit 1, Tab 38 [23].
[14] Exhibit 1, Tab 38.

18. It is apparent from the evidence that nurses were also required to attend emergencies out of town. They were equipped with an adapted Landcruiser 4WD vehicle as a clinic vehicle, to attend such visits and emergencies.

19. The WACHS has a Safe Driving Policy and Procedure (driving policy), which was adapted for the Pilbara driving conditions by the WACHS Pilbara staff. The driving policy provided for a Personal Safety Plan and Journey Risk Assessment form to be completed prior to any long or off road journey involving remote or isolated work. If the risk was high, staff members were directed to talk with their line manager as to whether they should cancel the trip.

20. From 2011/2012, WACHS staff members were also required to undertake 4WD vehicle training. The records were unclear as to whether the deceased undertook this training.[15] However, her curriculum vitae identifies that she was experienced in driving 4WD vehicles and ambulance driving and her sons and Nurse Collinson also confirmed that she was very experienced in 4-wheel driving and remote area driving.[16]

THE DECEASED'S PLACEMENT AT NULLAGINE

21. The deceased commenced in the role as a remote area nurse in October 2010 on a relief basis, employed through NurseWest. She worked at times at both the Marble Bar and Nullagine clinics, which are both single nurse posts. She preferred to work at Nullagine.[17]

22. From around August 2011, the deceased was the resident nurse at Nullagine, although she was never permanently employed by the WACHS Pilbara, as they were conducting a review of the nursing requirements of the remote posts at that time and were not making permanent appointments.[18]

23. The general impression of the people who worked with Connie was that she really enjoyed her role and contact with the Nullagine community.[19] She was described as a lovely, bubbly person who was friendly with everybody.[20]

[15] Exhibit 1, Tab 38 [30].
[16] T 95; Exhibit 1, Tab 32.
[17] Exhibit 1, Tab 38.
[18] Exhibit 1, Tab 38.
[19] T 78; Exhibit 1, Tab 39 [24].
[20] T 78.

24. In 2012, the nurse posted at the Marble Bar Clinic was Nurse Helen Collinson. Nurse Collinson knew the deceased quite well from the time she was posted to Nullagine and considered her to be both a colleague and a friend.[21] They spoke to each other on the telephone at least weekly to discuss workloads, shared patients and to occasionally arrange diversion of the clinic phone. They would also meet up in Marble Bar for a cup of tea when the deceased was getting a supply delivery.[22] Nurse Collinson knew that the deceased was a very experienced nurse and she formed the impression that the deceased was "coping very well"[23] with her workload.

25. Mrs Bridgette Schill, a Nullagine resident in 2012, had previously been the full-time nurse at Nullagine for many years. She also quickly befriended the deceased and, given their shared nursing experience, the deceased often confided in her about work issues. They would catch up for a chat nearly every day and they would talk about the deceased's sons and holidays and other personal matters, as well as about work.[24] The deceased described to Mrs Schill a heavy workload, that required her to work more than an eight hour day and included often being called out at night. However, Mrs Schill observed that the deceased handled the work pressure well and coped very well under normal circumstances.[25]

26. Ms Jan Cook was the Regional Nurse Director for WACHS Pilbara from September 2008 to March 2012, and the acting Regional Director for WACHS Pilbara from March to July 2012. Part of Ms Cook's role was to monitor and assess their workload and general wellbeing.[26] To perform this task, she kept in regular contact with the deceased, as well as the other remote nurses working in the region. Ms Cook's usual practice was to call each nurse at least once a week. For Nullagine, this was usually on Monday, and often again on Friday afternoon. When she spoke to the deceased, they would discuss the patients she had seen, including the number of after-hours evacuations.[27] Ms Cook also visited the clinic on a number of occasions.[28]

27. Ms Cook formed the impression that the deceased really enjoyed her role and contact with the Nullagine community. During the period from 2011 to 1 February 2012 when Ms Cook was in the Regional Nurse Director role, the deceased never complained to her about the number of patients she was required to see or that

[21] T 91 – 92.
[22] T 92.
[23] T 92.
[24] T 77 – 78; Exhibit 1, Tab 21.
[25] T 78 - 80.
[26] Exhibit 1, Tab 38 [19].
[27] Exhibit 1, Tab 38 [19] – [20].
[28] Exhibit 1, Tab 38 [21].

her workload was too high. She also never expressed concerns about the amount of afterhours work at the clinic. On occasion, Ms Cook had to actively encourage the deceased to have some time off away from Nullagine, just to have a break, as the deceased was so dedicated to her role.[29]

28. In early July, Nurse Collinson reported no change in the deceased's attitude towards her work. There was no suggestion the deceased was unhappy at work or feeling unsupported. Nurse Collinson recalls the deceased "was actually quite happy" because she had recently gone hiking in Tasmania and had "come back refreshed."[30]

THE NULLAGINE – MARBLE BAR ROAD

29. The majority of the Marble Bar to Nullagine Road is an unsealed, loose gravel-type road. It is single carriageway and unmarked. The road has room to allow normal-sized vehicles to pass each other in opposite directions. However, on occasions, dust from passing vehicles can hinder and restrict the visibility of drivers travelling in opposite directions. It has a large number of uneven sections and ruts along its route, caused by floodway erosion and vehicle usage. There are a number of blind crests along the route and some narrowing of the road surface occurs at certain sections.[31]

30. There is no street lighting on the road.[32] Senior Constable Reid described the section of the road where the crash occurred as "very, very dark" at night.[33]

31. The speed zone for the area is 110 kilometres per hour in both directions.[34] However, witnesses gave evidence that they would not generally drive at that speed on the road, given the road conditions.[35]

32. Witnesses reported the road is quiet at night, with drivers often passing only a couple of cars, or none at all, at night.[36]

33. Main Roads Western Australia assesses the Road Trauma Risk of the road as medium-low. This is based on the road having a high crash rate and a low crash density. It was explained at the

[29] Exhibit 1, Tab 38 [22], [24].
[30] T 100.
[31] Exhibit 1, Tab 6, 5.
[32] Exhibit 1, Tab 11 [30].
[33] T 9.
[34] Exhibit 1, Tab 6, 5.
[35] T 22, 95; Exhibit 1, Tab 11 [32].
[36] T 28, 82.

inquest that it arises from the low volume of traffic on the road but the higher risk of a crash for that relatively small number of road users.[37]

34. Anecdotally, the road is considered by locals to be a dangerous road to drive, particularly at night, because of the dust and the risk of encountering wildlife on the road.[38] Sergeant Bond confirmed that it wasn't uncommon for roll-overs to occur on the stretch of road, not all of them reported, although head-on collisions were uncommon.[39]

THE DECEASED'S MANNER OF DRIVING

35. As noted above, the deceased was very experienced at driving in remote areas. She had also gained experience rally driving in competition as a young woman, so she was a very competent and confident driver in difficult conditions.[40]

36. It seems from the evidence that the deceased's confidence in her driving ability on unsealed roads at times caused concern to her passengers and other drivers in Nullagine.

37. For example, Nurse Collinson (who was not a confident driver in remote areas) described herself as feeling "a bit scared" when she travelled with the deceased as she "drove a bit fast for my comfort," particularly on dirt roads.[41]

38. Similarly, Dr Catarina Widing from the Royal Flying Doctors Service gave evidence that she felt that the deceased drove on unsealed roads "faster than what the road was designed to be driven."[42] However, Dr Widing conceded that the deceased was far more experienced in driving in remote areas than herself.[43]

39. Sergeant Graeme Bond was stationed as the Officer in Charge at Nullagine in 2012. Although trained in four wheel driving, this was Sergeant Bond's first posting to a region with predominantly gravel roads. Sergeant Bond knew the deceased quite well, both professionally and personally. He had also had occasion to be concerned about the deceased's speed when driving on unsealed roads, and had spoken to her about the need to adapt her driving to the road conditions and to prioritise her safety.[44] Sergeant

[37] T 123 – 126; Exhibit 3.
[38] T 88.
[39] T 29.
[40] Exhibit 1, Tab 32.
[41] T 95.
[42] T 37.
[43] T 37.
[44] T 21.

Bond's wife had also expressed some concern to him about the speed at which the deceased drove on the unsealed roads.[45]

40. None of the concerns expressed by the witnesses related to the deceased's driving when fatigued or any loss of control of the vehicle. They all related to her speed, given the road conditions. That is, the complaint was not that the deceased was exceeding the speed limit, but she was not reducing her speed to allow for the changing road conditions, such as dust and loss of traction on gravel.[46] Given the deceased's considerable experience in driving in such conditions, it is arguable that she was more capable than the other drivers and hence their assessment as to the safety of her driving is subjectively based on their own driving ability in similar conditions.

41. However, more relevantly to this inquest, on the day of the crash a person spoke to Sergeant Bond in Marble Bar and expressed some concern that the deceased had taken up too much of the road when he was approaching her vehicle on a bend just out of Nullagine in daylight hours.[47] The person believed that the deceased had positioned her vehicle too much towards the centre of the road for safety and asked Sergeant Bond to have a word with the deceased about it.[48] Sergeant Bond did not have an opportunity to speak to the deceased about the complaint that day, but had intended to speak to her in due course and remind her about the driving conditions in the area and suggest that she keep a bit more to the left, especially on bends.[49]

42. Given the circumstances of the collision, the fact that only shortly before the crash a witness had reported the deceased had been driving too centrally on the Marble Bar Road is relevant to whether the deceased's manner of driving on the night was due to fatigue or simply consistent with her general style of driving.

EVENTS ON SATURDAY, 14 JULY 2012

43. The deceased visited Mrs Schill at about 1.00 pm that afternoon. At that time, the deceased appeared tired and worn out.[50] She explained to Mrs Schill that she had been on a callout on the Thursday night following a quad bike rollover and again on the Friday night due to a patient being severely burnt in a fire.[51] Both patients had needed to be flown out of Nullagine by RFDS

[45] T 22.
[46] T 13 – 14.
[47] T 24 – 25.
[48] T 25.
[49] T 24.
[50] T 81.
[51] Exhibit 1, Tab 33.

and on the second occasion RFDS could not fly there until the early hours of Saturday morning. As a result, the deceased had not got to bed until about 3.00 am that morning.[52]

44. At the time Mrs Schill saw her in the early afternoon, the deceased was freezing cold, even though it was a sunny afternoon, and hadn't had much to eat. Mrs Schill suggested that she needed to go home and get some sleep. The deceased agreed that she would and left Mrs Schill's house at about 2.00 pm.[53]

45. The evidence suggests that the deceased did go home and have something to eat and had a sleep on her couch, although it is not clear how long she slept for at that time.[54]

46. At 5.30 pm on the evening of 14 July 2012, Nurse Collinson received a phone call from Kevin Claydon, the Farm Manager at Limestone Station, which is situated 8 kilometres from Marble Bar. Mr Claydon informed Nurse Collinson that one of their workers had been burnt on the right arm and hand and had singed hair on her face while trying to light a gas cooker at the station and he was bringing the worker to the clinic.[55] The patient, Valentina Segatta, is Italian and was on a working holiday in Australia at the time. As Ms Segatta's ability to speak English is limited, her friend Martina Degasperi came with her to help with interpreting, as she speaks English fluently.[56]

47. Nurse Collinson met Mr Claydon, Ms Segatta and Ms Desgasperi at the clinic at 5.45 pm. Nurse Collinson examined Ms Segatta with Ms Degasperi acting as Ms Segatta's interpreter. Ms Segatta told Nurse Collinson that she was two months pregnant. Nurse Collinson examined Ms Segatta and provided some preliminary first aid to Ms Segatta's hand and arm, which were blistered, and her face, as it showed signs of reddening. She assessed Ms Segatta's vital signs and noted they were all within normal range.[57]

48. Nurse Collinson rang the RFDS and spoke to the doctor on call, Dr Catarina Widing. Nurse Collinson asked Dr Widing to prescribe pain relief, as Ms Segatta was in a fair bit of pain. Dr Widing ordered some analgesia to be given intravenously and also asked Nurse Collinson to insert a cannula. Dr Widing and Nurse Collison were both concerned that Ms Segatta might have

[52] T 81.
[53] T 81; Exhibit 1, Tab 21.
[54] T 81 – 82.
[55] Exhibit 1, Tab 19.
[56] Exhibit 1, Tab 6.
[57] T 90; Exhibit 1, Tab 19.

inhaled gas and have inhalation burns, given the history of the gas explosion, the slight reddening around Ms Segatta's face and a report that she had a slight cough. If Ms Segatta did have inhalation burns, they could compromise her airway, which would be potentially fatal.[58] It was apparent to Dr Widing and Nurse Collinson that Ms Segatta required urgent priority 1 evacuation to hospital by RFDS.

49. At that time, the Marble Bar airstrip was not operational at night, as a generator had failed two days before and was not due to be replaced until 16 July 2012.[59] Dr Widing and Nurse Collinson discussed the unavailability of the Marble Bar airstrip and the risks involved in transporting Ms Segatta by road. Dr Widing indicated that there was an RFDS plane available to fly to Nullagine and they agreed that Nurse Collinson would transport her patient to Nullagine airstrip and meet Dr Widing there. Dr Widing gave an estimated arrival time of 8.00 pm.[60]

50. Nurse Collinson's partner was staying with her in Marble Bar at the time so she asked him to drive them to Nullagine so that she could sit in the rear of the clinic vehicle with Ms Segatta and administer analgesia if necessary.[61] Nurse Collinson then rang the deceased to tell her what was happening and to arrange to meet her at the Nullagine clinic and collect the keys to the Nullagine airstrip. During the telephone conversation, the deceased offered to meet Nurse Collinson halfway between Marble Bar and Nullagine and transport Ms Segatta and Ms Degasperi to Nullagine. This was known as a 'halfway meet.'[62] She suggested that this would be better as then both clinics would only have no nursing coverage for about an hour, whereas otherwise the Marble Bar clinic would be closed for much longer.[63]

51. Nurse Collinson gave evidence that they had done half-way meets before, but did not do them regularly.[64]

52. Arranging halfway meets, either between the nurses or between a nurse and St John Ambulance staff, was a practice that was not encouraged by WACHS Pilbara for a number of reasons, one of them being a concern that the road between Nullagine and Newman was mostly unsealed and dangerous, due to heavy haulage and wildlife. Nevertheless, halfway meets were sometimes necessary. Ms Cook gave evidence she had advised the remote area nurses that halfway meets were not to occur

[58] T 33, 90.
[59] Exhibit 1, Tab 19.
[60] T 34, 90; Exhibit 1, Tab 19 [35].
[61] Exhibit 1, Tab 19.
[62] T 91; Exhibit 1, Tab 38 [34].
[63] T 91.
[64] T 94.

without consultation with the Regional Nurse Director or another senior manager. Ms Cook had thought the deceased accepted this instruction, although her impression was that she was committed to getting clients the care they required and had been open to the practice of halfway meets to achieve this.[65] Ms Cook also prepared draft site instructions to address this issue, which was circulated for feedback and put up at both the Marble Bar and Nullagine clinics, although it was never formalised.[66]

53. Nurse Collinson gave evidence she was not aware of the written policy against halfway meets, but knew that it was frowned upon by the WACHS. She also indicated that she had declined to do it in the past when she considered it unsafe, but did it when it was necessary.[67] She did not believe the deceased shared her concerns, noting the deceased was "a bit more adventurous" than Nurse Collinson.[68]

54. Nurse Collinson was aware that the deceased had been up the night before with an emergency so she asked the deceased, "have you had enough sleep? Have you eaten?" The deceased replied that she had slept that day, had eaten and felt fine.[69]

55. Nurse Collinson then completed the documentation necessary for a patient transfer and assisted Ms Segatta onto the stretcher in the rear of the vehicle after administering some morphine intravenously.[70] Nurse Collinson rang the Sergeant at Marble Bar Police Station at 7.00 pm to tell him her plans and then they left Marble Bar to head towards Nullagine.[71]

56. At 7.40 pm, they stopped on the Marble Bar/Nullagine road, 55 kilometres north of Nullagine, where the deceased was already waiting on the side of the road. They transferred Ms Segatta to the front seat of the Nullagine clinic vehicle, so the deceased could keep an eye on her while driving, and Ms Degasperi sat in the back.[72]

57. Nurse Collinson and her partner both noted at the time of the patient handover the deceased appeared a bit rushed, anxious and agitated,[73] which was unusual. Nurse Collinson attributed it to the timeframe, as the deceased knew the plane would be waiting by the time she got to the airstrip.[74] Both of them also

[65] Exhibit 1, Tab 38 [37].
[66] Exhibit 1, Tab 38 [40].
[67] T 94, 101.
[68] T 95.
[69] T 91, 93, 96.
[70] Exhibit 1, Tab 19.
[71] Exhibit 1, Tab 19.
[72] T 16.
[73] T 98; Exhibit 1, Tab 19 [57].
[74] T 97.

understood that the situation was fairly urgent as they knew if Ms Segatta's airway started to swell, her airway would be compromised and they would have to attempt to intubate her or do a small tracheotomy without the proper drugs or equipment.[75] Nurse Collinson did not think at the time that the deceased appeared tired, observing that she was "bustling around like she normally did."[76]

58. At the time Ms Segatta was transferred to the deceased's care, she was still in pain and upset. She had been crying on and off the whole time, due to the pain and her fears for her pregnancy.[77] However, she was described by her friend, Ms Degasperi, as still remaining calm.[78]

59. The deceased ask Nurse Collinson to contact RFDS Operations and tell them she was going to be late and wouldn't arrive at the airstrip until about 8.20 pm. Nurse Collinson and her partner then left to return to Marble Bar and the deceased drove back towards Nullagine, taking Ms Segatta and Ms Degasperi with her.[79]

THE CRASH

60. As they drove towards Nullagine, Ms Degasperi noted the deceased seemed a bit stressed and she explained that they needed to get to the meeting with the RFDS quickly.[80] There is no suggestion that the RFDS directed Nurse Collinson or the deceased to rush to the airstrip nor that they would not wait if they were delayed. Rather, it seems to have been consistent with the deceased's conscientious nature that she would have been trying her best not to delay the RFDS as much as she possibly could.[81]

61. Ms Degasperi was sitting behind her friend but she could still see a view of the road ahead. She saw that while they were driving they came across a kangaroo in the middle of the road, which required the deceased to slow down until it moved, and the deceased slowed a few more times due to deep bumps in the road.[82] The remainder of the time Ms Degasperi had the impression they were travelling quite fast, which made her feel a

[75] T 96.
[76] T 98.
[77] T 98.
[78] T 15.
[79] T 91; Exhibit 1, Tab 19.
[80] T 16.
[81] T 13, 37.
[82] T 18.

bit scared,[83] and Ms Segatta reached the same conclusion.[84] Ms Degasperi noted that they generally were travelling in the middle of the road and they did not pass any other vehicles.[85]

62. At the same time the Nullagine clinic vehicle was heading towards Nullagine, Mr Steven Edwards was driving his Toyota LandCruiser ute along the same road towards Marble Bar. He was familiar with the road and for his own comfort and safety he generally drove it at a speed of 40 to 60 km/hr, well below the posted 110 km/hr speed limit.[86] Mr Edwards' ute was fitted with high intensity discharge spot lights, which are designed to provide a bright light, and he had both his headlights and his spotlights on that evening.[87]

63. As Mr Edwards was travelling along the road, he saw a vehicle travelling south towards him, which it is now apparent was the vehicle being driven by the deceased. Mr Edwards dipped his headlights when he saw the vehicle, which also had the effect of turning off his spotlights. He noticed that the deceased did not dip her headlights in response. Mr Edwards then slowed his vehicle, which was positioned to the left hand side of the road, in anticipation of the dust that would be created by the other vehicle. At this time, he was approaching a slight crest in the road and he could see the glow of the headlights of the deceased's vehicle heading towards him. When Mr Edwards reached the top of the crest, his vehicle collided head-on with the deceased's vehicle.[88]

64. Mr Edwards, Ms Segatta and Ms Degasperi were all seriously injured in the collision. The deceased was fatally injured and died at the scene before help could arrive.

65. A truck driver came across the crash scene sometime between 8.30 and 9.00 pm. He used his truck radio to alert emergency services then tried to provide some comfort to the survivors while they waited for help to arrive. Nurse Collinson was contacted and she informed Dr Widing and the other RFDS staff who were waiting at the Nullagine airstrip. Together with local police and fire emergency services staff, they made their way to the crash scene. Arrangements were made to airlift Mr Edwards, Ms Segatta and Ms Degasperi to Royal Perth Hospital for medical treatment.

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[83] T 17.
[84] T 17; Exhibit 1, Tab 6, 7.
[85] T 18.
[86] Exhibit 1, Tab 11 [32].
[87] Exhibit 1 Tab 11.
[88] Exhibit 1, Tab 11.

66. Dr Widing certified that the deceased, who was still trapped in the vehicle at that stage, had died at 10.15 pm.[89]

CAUSE OF DEATH

67. A post mortem examination was conducted by a Forensic Pathologist, Dr Daniel Moss, on 19 July 2012. At the conclusion of the examination, Dr Moss formed the opinion that the cause of death was multiple injuries.[90]

68. I accept and adopt the conclusion of Dr Moss as to the cause of death.

INVESTIGATION INTO THE CAUSE OF THE COLLISION

69. On the evening of the crash, two police officers from Nullagine Police Station, Sergeant Bond and Senior Constable Reid, and two other local police officers attended the scene.[91] The road in both directions was closed by the officers to preserve the site until officers from Major Crash Investigation Section could attend.[92]

70. Two officers from Major Crash Investigation Section, Senior Constable Adrian Callaghan and First Class Constable Collins, attended the crash scene the following day. The vehicles were still *in situ* when they arrived. They conducted a forensic survey of the scene.[93]

71. The location of the crash was approximately 20 kilometres north of Nullagine, approaching a crest. The crash occurred at the top of the crest.[94] The surface of the road in that location was in good condition, free of pot holes and contaminants. Senior Constable Callaghan described it as a good quality unsealed road.[95] The road was dry on the night of the collision.[96]

72. The damage profile to the two vehicles suggests that the primary collision occurred between the front right of each vehicle, what Senior Constable Callaghan described as "offset head on."[97] There was no indication that either vehicle had swerved prior to

[89] Exhibit 1 Tab 3.
[90] Exhibit 1, Tab 4.
[91] Exhibit 1, Tab 6, 2.
[92] Exhibit 1, Tab 6, 2 - 3.
[93] T 106; Exhibit 1, Tab 6, 3 and Tab 27.
[94] T 111.
[95] T 112.
[96] Exhibit 1, Tab 6, 5.
[97] T 110.

the collision, although there was evidence the driver of the utility had braked heavily and possibly the deceased also.[98] Post impact, the vehicles rotated in a clockwise direction and came to rest facing each other approximately 90 degrees from their original direction.[99]

73. Two locked wheel scuff marks were located on the south side of the crest and matched Mr Edwards' utility. The tyre marks placed the utility on the correct side of the carriageway for its direction of travel, when he braked heavily in response to seeing the clinic vehicle approaching.[100] However, Senior Constable Callaghan noted the utility was still towards the centre of the lane, as there was significant room towards the left.[101]

74. In contrast, the examination of the scene indicated that the Nullagine clinic vehicle driven by the deceased was straddling the centre of the carriageway, with the right side of the vehicle encroaching onto the incorrect side of the road at the time of the crash.[102] Senior Constable Callaghan described it as "more over on the incorrect side of the road than on the correct side."[103]

75. Working on the assumption that the vehicles were of similar weights, Senior Constable Callaghan suggested the speeds of both vehicles would have been fairly similar at the time of impact.[104] As to what that speed was, he was unable to provide a speed estimate but agreed during questioning that it would have been below the 110 km/hr speed limit but above 40 km/hr to achieve the substantial collision damage that was present.[105]

76. The evidence supported the conclusion both vehicles had their headlights on at the time of the crash.[106]

77. A Qualified Vehicle Examiner from the Vehicle Investigation Unit, Mr Peter Willsher, conducted an examination of both vehicles. He detected no pre-existing defects in either vehicle.[107]

78. The location of the crash appears to be a critical factor contributing to the collision. Senior Constable Callaghan noted the crash occurred "pretty much right on the crest" and he observed the visibility of oncoming traffic approaching from the other side of the crest was severely limited, especially at night

[98] T 108 – 110.
[99] Exhibit 1, Tab 6, 55.
[100] Exhibit 1, Tab 27.
[101] T 108.
[102] Exhibit 1, Tab 27.
[103] T 108.
[104] T 110.
[105] T 115 – 116.
[106] T 107; Exhibit 1, Tab 27.
[107] Exhibit 1, Tab 25.

time.[108] Consistently with the account given by Mr Edwards, even if it was apparent from the lights that a vehicle was approaching, it would be difficult to see where the vehicle was until it was a lot closer, limiting the drivers' reaction times.[109]

79. Senior Constable Reid, who has driven that section of road many times, described the crest as "very, very steep" on both sides,[110] and agreed it would be quite possible, if you weren't overly paying attention, not to see another vehicle's headlights approaching due to the severity of the crest.[111]

80. The width of clear roadway was 9.5 metres, significantly wider than the average marked road, which is usually a bit less than 7 metres wide.[112] Senior Constable Callaghan saw nothing in the road surface, such as corrugation or a build-up of loose materials, which would have forced either car into the middle of the road.[113] He also looked particularly at the side of the road where the deceased approached the crest, and could find no anomaly in the road that would guide a driver towards the centre of the road (although I note that Sergeant Bond gave evidence he thought on the night the grading of the road with the surrounding bushland may have done so, particularly if the deceased was tired at the time).[114]

81. In conclusion, Senior Constable Callaghan could find nothing to suggest that the crash occurred for any reason other than driver error.[115] In that regard, Senior Callaghan noted that Mr Edwards was driving more towards the centre of the road than caution would suggest was appropriate, but he was still clearly on the correct side of the road. In contrast, the deceased had placed her vehicle squarely into the path of oncoming traffic by driving centrally in the road, with a significant part of her vehicle on the incorrect side of the road.[116]

82. Senior Constable Reid, who has driven the road often, acknowledged that it is well known that people commonly drive more centrally in the roadway to avoid collision with roaming animals, such as cattle and kangaroos.[117] Senior Constable Reid gave evidence that the Nullagine-Marble Bar road is not a very busy road and people tend to rely heavily on seeing and sighting

[108] T 111.
[109] T 111.
[110] T 9.
[111] T 9.
[112] T 112.
[113] T 112.
[114] T 26, 113.
[115] T 114.
[116] T 113.
[117] T 10.

headlights in the opposite direction, which you can normally see some distance away.[118]

83. Sergeant Bond also agreed that it is a common practice in the area to drive on the wrong side of the road at times when the road has deteriorated, but the standard road rules still apply and vehicles must keep left when approaching other vehicles.[119] Sergeant Bond accepted that, at the time the crash occurred in that location, the vision of oncoming vehicles was totally obscured until the driver reached the top of the crest.[120] However, for that reason, if approaching that crest the practice of driving centrally would be contrary to common sense.[121]

84. Officers from Main Roads Western Australia also examined the crash site and prepared a crash investigation report in relation to this incident to determine if any road environment features contributed to the crash or represented a significant hazard to road users in the area.[122]

85. Mr Adam Hazebroek, a Road safety officer with Main Roads, gave evidence at the inquest about the Main Roads investigation. The investigators concluded that the crest warning sign for southbound traffic was not reflective and was located too close to the crest to adequately warn drivers of the presence and severity of the crest. There was also no crest warning sign for northbound traffic. The report writers concluded there was a possibility the lack of adequate warning of the crest may have limited the drivers' awareness of the presence of the crest.[123]

86. The Main Roads investigation also concluded that there were insufficient guideposts through the crest to delineate the road and change of direction beyond the crest, although Mr Hazebroek conceded in his evidence that the curve after the crest was not significant.[124]

87. More significantly in this case, the Main Roads investigation team found the stopping sight distance was less than 60 metres due to the combination of the crest and the change of road direction. The steepness of the crest reduced the sight distance fairly significantly. Mr Hazebroek explained the preferred sight distance in these circumstances is 306 metres, which is significantly greater than was present at the time of the crash.[125]

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[118] T 10.
[119] T 25.
[120] T 26.
[121] T 26.
[122] Exhibit 1, Tab 28.
[123] T 118 - 119; Exhibit 1, Tab 28.
[124] T 119 – 120.
[125] T 121 – 122; Exhibit 1, Tab 29.

The writer of the report recommended that the crest be removed to provide adequate stopping sight distance.[126]

88. Following the inquest, confirmation was received from Main Roads that the changes to the signage and delineation to the road have been completed.[127]

DID FATIGUE CONTRIBUTE?

89. Senior Constable Reid, who prepared the report to the Coroner on behalf of the Western Australian Police Service, concluded in his report that fatigue may have contributed to the deceased's failure to see Mr Edwards' oncoming vehicle.[128]

90. This issue was explored in more detail during the inquest. Over the six month period between 1 January 2012 and 13 July 2012, the deceased was recorded in the overtime records as having worked outside of her normal rostered times of 8.00 am to 4.30 pm six times, totally 34.75 hours.[129] However, these records were conceded by counsel appearing on behalf of WACHS to not be reliable, given there was a common practice not to record overtime due to there being an annual allowance for overtime.[130] This is consistent with the evidence of Mrs Schill that the deceased regularly worked at night to complete paperwork, and the evidence that the deceased was on two late night callouts in the days before her death, which was not disputed at the inquest but is not recorded in the timesheets.[131]

91. The deceased did have a number of leaves of absence over that same period, including her most recent holiday of 8 days from 4 to 13 June 2012.[132] Nurse Collinson reported the deceased was feeling refreshed as a result.

92. Even allowing for some additional overtime work that is not reflected in the records, the evidence overall did not support a conclusion that the deceased was fatigued on a continual basis, nor that she was finding it difficult to cope with her workload generally.

93. As noted earlier, there was evidence to suggest that the deceased was indeed tired during the day on 14 July 2012, due to late night callouts on two previous nights. However, there was also

[126] T 121; Exhibit 1, Tab 28, 9.
[127] Email to Counsel Assisting from Mr Gary Player, Main Roads, 9.10.2015, with photo attachments.
[128] T 8.
[129] Exhibit 1, Tab 40 [15].
[130] Exhibit 1, Tab 40 [15] – [17].
[131] Exhibit 1, Tab 40, Attachment 2.
[132] Exhibit 1, Tab 40 [15].

evidence to suggest she had at least some sleep in the afternoon.[133]

94. This information was provided to Dr Nicholas Mabbott, a psychologist who has expertise in fatigue risk management and sleep disorders. Of particular relevance to this inquest is Dr Mabbott's experience researching driver fatigue and road accident investigation.

95. Dr Mabbott explained at the inquest that fatigue, which is something more than simply being tired, can affect driving behaviour through impaired decision-making and judgment, poor lane tracking, slowed reaction time and altered headway maintenance of speed. It can also result in micro sleeps while behind the wheel.[134]

96. The cause of fatigue can generally be traced back to two main causes: Circadian rhythms and sleep debt.[135] Circadian rhythms generally affect when we sleep and wake and the times where there is the best opportunity for restorative sleep, whereas sleep debt occurs when a person does not get the adequate quality and length of sleep required for each 24-hour period.[136]

97. Based on the information available to Dr Mabbott, including what was known of the deceased's sleep history in the preceding days (some of which was unknown) and the evidence of the collision scene itself, Dr Mabbott was asked to provide his expert opinion as to whether fatigue was likely to have affected the deceased's driving on the night of her death.[137]

98. Dr Mabbott concluded there was there was no clear evidence the deceased had a sleep debt at the time she was driving that night. Rather, the evidence suggested the deceased "may have built a small sleep debt and then paid it back in the same afternoon" on the day she died.[138] None of the witness accounts that night suggested the deceased appeared tired either at the halfway meet or when driving back towards Nullagine airport.[139]

99. Dr Mabbott considered the crash scene itself had more fatigue indications than anything else, given other possibilities for the collision such as intoxication, could be eliminated. However, in the end Dr Mabbott indicated that the only opinion that he could form was that the collision was 'quite likely not fatigue

[133] T 82, 91, 93.
[134] T 128 – 129; Exhibit 1, Tab 37.
[135] Exhibit 1, Tab 37.
[136] Exhibit 1, Tab 37.
[137] Exhibit 1, Tab 37.
[138] T 130.
[139] T 133 - 134

related."[140] This was, in part, based upon the fact that the deceased was driving in an emergency situation at the time, so adrenaline would have been likely to overcome any residual tiredness she was feeling.[141]

100. In the end, while fatigue could not be entirely eliminated as a contributing factor to the collision that night, given not all the relevant evidence was available, the evidence generally suggested that it was unlikely that fatigue was a contributing factor.[142]

MANNER OF DEATH

101. On the evening of her death, the deceased was driving the clinic vehicle in an emergency situation. Her patient's condition could have deteriorated at any time and the deceased was reacting with appropriate urgency to the need to get her patient to the meet with the RFDS plane so she could be treated by a doctor if that occurred.

102. The deceased was familiar with driving on unsealed roads generally, and the Nullagine-Marble Bar road in particular, and she would have been aware of the inherent dangers of the road. However, it seems that she may have been led by the knowledge that the road was rarely travelled at night into thinking she was unlikely to encounter any oncoming vehicles. Although the other driver saw the headlights of the deceased's vehicle approaching, the evidence suggests the deceased did not see the oncoming car. She then drove the clinic vehicle in the centre of the road, over a blind crest, and by sheer bad luck, the other car reached the top of the crest at the same moment. The head-on collision that resulted caused serious injuries to all of the occupants of both vehicles, and the deceased died as a result of her injuries.

103. Taking into account all of the evidence before me, I find that the major contributing factor to the crash was the deceased's decision to drive centrally in the road over the crest. If fatigue played a part in her decision to do so, it would appear to have been a minor one. The evidence more strongly supports the conclusion that she did so because this was her customary manner of driving, based upon her experience in driving in such road conditions, and she did not anticipate encountering any traffic at that time of night in that remote area. The topography of the area also contributed to her inability to see approaching traffic as she travelled up the crest. The deceased would not

[140] T 131.
[141] T 132.
[142] T 134.

have deliberately put herself or her passengers in danger, but made an error of judgment that, sadly, had a fatal result.

104. I find that the manner of death was by way of accident.

CHANGES IMPLEMENTED SINCE THE DEATH

105. According to Ms Kylie Bosich, the current Regional Director of Nursing and Midwifery for the WACHS Pilbara, since the deceased's death there are no more halfway meets or transfers of unwell patients at night between Nullagine and Marble Bar. All transfers now occur via the RFDS. The nurses at Marble Bar and Nullagine are not permitted to drive at night time, apart from attending the airstrip for RFDS evacuations.[143] The new Nullagine Nursing Post Orientation Manual (Nullagine Orientation Manual), which was endorsed on 15 September 2015, emphasises the importance of not driving at night without consultation with the operational manager or manager on call.[144]

106. In addition, the Nullagine Orientation Manual also sets out a maximum speed limit for driving the Nullagine clinic vehicle, on sealed or unsealed roads, of 80 km/hour.[145] Further, the Manual indicates that, when driving to the Nullagine airstrip, nurses should drive according to the road and weather conditions.[146]

107. I note that on this occasion, the halfway meet was only required because of a failure of the generator at the Marble Bar airstrip, which was not able to be quickly repaired. Even with the changes to the WACHS policies about halfway meets and night driving, if a similar situation arose it would probably necessitate at least the Marble Bar nurse having to drive on the road at night. As Dr Widing explained at the inquest, when faced with the circumstances that night, the only other options available, other than getting the patient to the Nullagine airport to meet the RFDS, were "medically unsafe ones."[147]

108. Events such as this will occur from time to time, given the remoteness of the region, and it is not a criticism of the WACHS to say that their policies will not be able to cover every eventuality and always guarantee a safe working environment for their remote area nurses. What can be said is that the WACHS Pilbara has taken steps since the death of the deceased to limit the risks

[143] Exhibit 1, Tab 40.
[144] Exhibit 1, Tab 40, Attachment 6.
[145] Exhibit 1, Tab 40, Attachment 6.
[146] Exhibit 1, Tab 40, Attachment 6.
[147] T 38.

for their nurses in Nullagine and Marble Bar as much as possible.

109. A suggestion was raised during the inquest that some thought might also be given to installing a mesh barrier in the clinic vehicle, for added safety of the driver and front passenger. Mr Nelson, on behalf of the WACHS, indicated it was a matter that would be taken under advisement by the service, so I don't take the matter further.[148]

110. The WACHS has also implemented changes to endeavour to provide a more supportive network for remote nurses, with better orientation processes and measures to address issues such as fatigue and isolation.

111. In November 2012, the Department of Health issued the WA Health Fatigue Management Policy.[149] This policy is given to new staff working in the remote area clinics and is referred to in the Nullagine Orientation Manual.[150] The policy is designed to minimise the risk of harm caused by fatigue and maintain a safe and healthy work environment. New staff members are specifically made aware at orientation of their obligation to be aware of fatigue and notify their line manager. In addition, Nullagine and Marble Bar nurses are now required to complete and submit a timesheet that includes actual overtime and recall time they have worked over the week, so that their total working hours can be monitored and managed.[151]

112. As part of the orientation process for new nurses in the region, the remote area nurse is informed they are not to attend for duty hours unless they have had a 9.5 hour break, as per the Australian Nursing Federation award.[152] At these times, the nurse is directed to divert the phone to HealthDirect. However, if there is an emergency the nurse may still be recalled to assist in any event if absolutely necessary.[153]

CONCLUSION

113. The WACHS is the largest country health system in Australia and one of the biggest in the world. It covers a vast two and a half million square kilometre area.[154] The remote area nurses form a vital part of this health system, with nursing posts established

[148] T 141.
[149] Exhibit 1, Tab 40, Attachment 5.
[150] Exhibit 1, Tab 40 [24] and Attachment 6.
[151] Exhibit 1, Tab 40 [28].
[152] Exhibit 1, Tab 40, Attachment 4.
[153] Exhibit 1, Tab 40 [18] – [20] and Attachment 6.
[154] Exhibit 1, Tab 40, Attachment 1, 2.

throughout the regions, a large proportion being staffed by single nurses.[155] The nurses who work in these nursing posts have many demands placed upon them, given the lack of other health services nearby.

114. The deceased had chosen to take up the position as the Nullagine clinic remote area nurse because she loved the nature of the work and the ability to work independently and make a significant contribution to the local community. By all accounts, she was a skilled, diligent, conscientious nurse with an engaging personality who made friends quickly in the Nullagine community. I have no doubt that she is greatly missed by those who worked with her and knew her personally.

115. The circumstances of the deceased's death reflect her willingness to go above and beyond to help others. In the course of trying to help a colleague and ensure a patient was taken to hospital as quickly as possible, the deceased was involved in a fatal traffic collision.

116. I have noted above my conclusion that the main contributing factor to the collision was driver error, and have explained the factors that may have led the deceased to make that error. The few steps that could practically be taken by Main Roads Western Australia to improve the road surrounding the crest to reduce the likelihood of a similar collision occurring have been taken.

117. None of the counsel involved in the inquest hearing have submitted that any recommendations for other improvements to the road or to the working conditions of remote area nurses in Western Australia should arise from this investigation into the death of the deceased.

118. In conclusion, I find the death of the deceased was a tragic accident.

S H Linton
Coroner
6 January 2016

[155] Exhibit 1, Tab 35.