



# OFFICE OF THE STATE CORONER

## FINDINGS OF INQUEST

**CITATION:** **Inquest into the death of Rhonda Joy STEGGALL**

**TITLE OF COURT:** Coroner's Court

**JURISDICTION:** Rockhampton

**FILE NO(s):** COR 3475/06(9)

**DELIVERED ON:** 17 December 2008

**DELIVERED AT:** Rockhampton

**HEARING DATE(s):** 11 April & 16 July 2008

**FINDINGS OF:** Ms AM Hennessy, Coroner

**CATCHWORDS:** CORONERS: Inquest – single vehicle accident, condition of road surface, recent roadworks, lack of signage

### REPRESENTATION:

Sgt D. Dalton – appearing to assist the Coroner

Mr Gerard O'Driscoll – representing the Rockhampton Regional Council instructed by McCullough Robertson Lawyers

Mr Tony Arnold – representing the family instructed by Swanwick Murray and Roche

These findings seek to explain, as far as possible, how the motor vehicle incident in which Mrs Steggall died occurred on 21 December 2006. As a result of the evidence in this matter, changes to current roadwork practices may be recommended with a view to reducing the likelihood of deaths occurring in similar circumstances ~~occurring~~ in future.

### ***THE CORONER'S JURISDICTION***

1. The coronial jurisdiction was enlivened in this case due to the death of Mrs Steggall falling within the category of "a violent or otherwise unnatural death" under the terms of s8(3)(b) of the Act. The matter was reported to a coroner in Rockhampton pursuant to s7(3) of the Act. A coroner has jurisdiction to investigate the death under Section 11(2), to inquire into the cause and the circumstances of a reportable death and an inquest can be held pursuant to s28.
2. A coroner is required under s45(2) of the Act when investigating a death, to find, if possible:-
  - the identity of the deceased,
  - how, when and where the death occurred, and
  - what caused the death.
3. An Inquest is an inquiry into the death of a person and findings in relation to each of the matters referred to in section 24 are delivered by the Coroner. The focus of an Inquest is on discovering what happened, informing the family and the public as to how the death occurred, but not on attributing blame or liability to any particular person or entity.
4. The coroner also has a responsibility to examine the evidence with a view to reducing the likelihood of similar deaths. Section 46(1) of the Act, authorises a coroner to "*comment on anything connected with a death investigated at an inquest that relates to – (c) ways to prevent deaths from happening in similar circumstances in the future.*" Further, the Act prohibits findings or comments including any statement that a person is guilty of an offence or civilly liable for something.
5. Due to the proceedings in a Coroner's court being by way of inquiry rather than trial, and being focused on fact finding rather than attributing guilt, the Act provides that the Court may inform itself in any appropriate way (section 37) and is not bound by the rules of evidence. The civil standard of proof, the balance of probabilities, is applied. All interested parties can be given leave to appear, examine witnesses and be heard in relation to the issues in order to ensure compliance with the rules of natural justice. In this matter, the family of the deceased and the Rockhampton City Council (RCC) (now Rockhampton Regional Council) were represented at the Inquest.
6. I will summarise the evidence in this matter. All of the evidence presented during the course of the Inquest and the exhibits tendered

have been considered even though some aspects of the evidence may not be specifically commented upon.

***THE EVIDENCE***

7. Mrs Steggall was driving her Hyundai vehicle on Nine Mile Road, Pink Lily, via Rockhampton, on the 21<sup>st</sup> December 2006. She was aged 43 years at the time. Her two young children, Jessica aged 8 years and Henry aged 5 years, were in the vehicle with her. All were wearing fitted seat belts.
8. The road upon which Mrs Steggall was travelling was a country road. It had a bitumen surface with unsealed edges and wide gravel shoulders with only a slight decline to the surrounding grazing and bushland. The speed limit was unsigned and reverted to the standard 100km per hour for open road. There were no signs concerning the road conditions within the vicinity of the incident on the day in question.
9. Mrs Steggall approached a section of road that was the subject of roadworks in the preceding days by Rockhampton City Council employees. The roadworks covered 122 meters of the length of road at the site of the incident. It appears that Mrs Steggall lost control of the vehicle on a bend in the road which had been subject of the roadworks. The vehicle rolled several times and came to rest 5-10 metres from the roadway in bushland. The vehicle had extensive damage, in particular the left hand side.
10. Following the incident, the children extricated themselves from the vehicle and started to walk to their father at home for help. A passing vehicle stopped and rendered assistance to them and called the ambulance. Mrs Steggall was found to be deceased on arrival of the ambulance but the children were not seriously physically harmed.
11. Mrs Steggall had lived at Alton Downs for approximately 9 years at the time of the incident and had travelled the road 5-6 times a week, sometimes twice a day, and therefore was familiar with the road. She had been driving her vehicle for a period of 18 months and it was described by Mr Steggall as an excellent car to drive. Inspection of the vehicle following the incident did not reveal any defects. Mrs Steggall was well rested at the time of the journey and had just returned from holidays.
12. The children were interviewed by the Police and described the road as being "bumpy", the car "going wobbly and from side to side" and "Mum couldn't get it (the car) to stop". Further, it was said that the car "went all funny" on the corner and "Mum tried to get the car straight but it rolled over".
13. Tammy Carlisle gave evidence that she had driven on the road earlier in the day. As she approached the corner she was driving normally

and then her vehicle spun out and fishtailed and ran off the road into a small gully. She stated that the road had always been narrow and rough but on this day the bitumen was very loose and had little rocks all over it. Ms Carlisle did not contact anyone about the incident.

14. Sgt Pimm of the Gracemere Police investigated the incident. He stated that he saw that the repairs to the road started just before the bend and continued around it. Sgt Pimm saw that Mrs Steggall's vehicle left marks on the roadway which Sgt Pimm, with his experience and training as a Traffic Accident Investigation officer, was able to interpret for the Court. There were tyre marks, indentations in the road surface and edges and a gouge mark. There were no marks indicating any fishtailing of the vehicle or loss of control according to the officer but under cross-examination he did accept that it was plausible that Mrs Steggall may have lost control early in the incident. Sgt Pimm settled on the opinion that while the loose stones were a possible factor in the incident, he could not be certain as to the extent of their impact. In effect, he said it is unknown as to exactly why Mrs Steggall went off the left hand side of the road.
15. From the marks that were evident, it was posited that the vehicle veered towards the left shoulder of the road, the tyre left a mark in the soft edge and the tyre then came back onto the new surface at an angle where the front tyres bit into the bitumen, causing the front of the vehicle to stop suddenly and roll due to the angle of the vehicle when the tyres bit into the surface. This action left the gouge mark on the road surface. The side airbag of the vehicle had deployed (from the side rollover) but the vehicle was not fitted with curtain airbags. The existence of further airbags would not have saved Mrs Steggall from the fatal head injuries sustained from contact with the roof of the vehicle during the rollovers, according to Forensic Pathologist, Dr Buxton.
16. Statements were provided and evidence given by Jason Pierce, Works Engineer from RCC and Gordon Stewart, Works Foreman for RCC in relation to the roadworks undertaken on this stretch of road.
17. Mr Stewart gave evidence that he had received a maintenance order in August 2006 for repairs to be carried out on Nine Mile Road. He inspected the road and determined that while repairs were needed, they were not urgent. In December his inspection of the road revealed that it had deteriorated and the decision was taken to resurface two sections prior to Christmas. Work commenced on 20 December 2006. Mr Stewart stated that the works were carried out in accordance with the usual guidelines from the Engineering Department of RCC for road construction.
18. Mr Stewart had been using the road surfacing material used in this matter which had first been discovered as waste in the landfill and was used and developed in a trial and error fashion over a period of 10

- years. The material had been used successfully on 12-13 roads in the Rockhampton area. One road had been flooded for 3 weeks and the material stood up well. No problems had been encountered by RCC with the material on any previous application.
19. Mr Stewart gave evidence that the surface, once laid, was rolled twice to compact it. He inspected the road surface that afternoon and found it tight and free from loose material. Mr Stewart stated that these profilings were the best material ever received from Main Roads.
  20. Mr Stewart gave evidence that temporary signs were erected while the work was being undertaken but were removed on completion of the work in accordance with the usual practice. On occasion when the stone has been laid but not yet sprayed, "loose stones" signs are left after completion of work to avoid windscreen damage. This was not the case on this occasion.
  21. Mr Pierce attended the scene at the request of the Police and noted that the repairs had used asphalt profilings and the surface appeared well compacted with a small amount of loose material on the surface. Mr Pierce advised that after the incident the loose material was swept off the road at Police request and comprised 2-3 wheelbarrow loads (about 675 square meters) of material, thought by the witness to be a minor amount. He conceded that on the left side of the road the edges were a bit soft and could have been compacted more. He stated that the road was in substantially the same condition on the day of the incident as it had been at the completion of work on the day before the incident.
  22. The repairs were of a temporary nature, thought necessary to secure the road for the Christmas break and prevent further degradation of the road from summer storms over the period. The major problem with the road surface was potholes.
  23. Mr Pierce advised that the asphalt profilings were used by the RCC around Rockhampton for shoulders and some road resurfacing when the material was available. The asphalt is recycled in that it is taken up off road surfaces (usually due to some defect such as too much bitumen in the mix as in this case) and was milled fine. When re-laid, it eventually compacts due to the presence of bitumen contained in the mix. The mix is a lot stickier than normal road base which is usually stone with a bitumen spray over the top. If there is too much bitumen in the mix, the surface is not as stable and can "bleed", especially when hot. It can be very soft as a surface and does not offer good skid resistance as the bitumen rises to the surface and covers the stones in the mix. Even though the asphalt is considered "faulty" before relaying, Mr Pierce gave evidence that it can be very suitable for use as a road base as the fault of excess bitumen is the very thing which makes its reuse suitable.

24. The profilings are stored on Council land until required to be used by the foreman who plans road repairs. Main Roads usually required 99% compaction density in their roadworks but RCC did not regularly undertake density tests.
25. Following the incident RCC stopped using the profilings altogether.
26. Mr Pierce gave evidence that the foreman, Mr Stewart, had been using the profilings for years and had developed informal procedures concerning its use. There are no formal procedures in place concerning road repairs generally.
27. Martin Crow, Director of Works, RCC, also provided a report to Police. He stated that there were no procedures in place for the use of asphalt profilings in this type of usage and he had requested that Council not use the material in this way until appropriate procedures were put in place.

#### ***THE CONDITION OF THE ROAD SURFACE***

28. Sgt Pimm described the road as being soft underfoot with spongy edges which crumbled into the dirt verge. He saw some loose stones on top of the surface which he described as pebble type pieces of bitumen up to 5mm diameter, and later described "quite a bit" of loose stone and bitumen on top of the surface. The old bitumen prior to the roadworks was free of stones. He stated that the roadworks started prior to the bend and there were loose stones at the start of the roadwork area. He considered that a small amount of stones would make the surface slippery but not sufficiently to cause the loss of control of a vehicle on a straight section of road in the Sgt's opinion. He was of the opinion that the difference in the surface between the old road and the roadworks could have been sufficient to cause Mrs Steggall to move off to the left of the road. When she did move in that direction, if she had not taken evasive action, she would have collided with a guidepost. It seems that Mrs Steggall therefore moved onto the road surface again at a sharp angle, causing the tyres to bite into the soft surface of the road.
29. Sgt Pimm noted that the surface was spongy in the area of the gouge mark and he was able to press his heel into the surface although not to the extent of causing an indentation. He considered that the surface was somewhat softer than a bitumen road surface usually was. He stated that the loose surfaces on the edges of the road were crumbling away and the surface was the same in the centre of the road where the wheel mark indentations were.
30. Mr Steggall attended the scene of the accident that day and commented in his statement on the "shocking" condition of the road. He has experience in road construction and earthmoving. He described an uneven surface where the roadworks had been

undertaken with marbles on the surface where the asphalt was falling apart.

31. Mr Lawrie Murfin, an Engineer from Main Roads, inspected the road that afternoon at the request of the Police. He later provided a report in which he stated that the road had been resurfaced with recycled asphalt and the surface was reasonably tight but was unravelling under traffic. The material at the edges was not compacted well and was spongy underfoot, more than he would have expected for a newly laid road. The spongy surface moved underfoot. The surface was reasonably tight where there was no traffic but was unravelling in traffic areas. He said that the loose material on the surface of the road was not considered to be excessively dangerous.
32. Mr Murfin stated that the recycled asphalt is a low cost surfacing material and had been successfully used in the past on low traffic/low speed areas such as hardstands, car parks, off ramps, driveways and low speed access tracks. The nature of the material was such that it consolidates under traffic as the material which is laid cold, heats, and the bitumen binds the stone into a compact surface. It was not thought to be normally used as a surface in general roadworks at least that was not Main Roads practice. Mr Murfin was not aware of any formal standards regarding repairs to road surfaces. Mr Murfin had not before worked in an area where this material was readily available and was not aware of its use elsewhere. The material is considered waste by Main Roads and it is subject to disposal.
33. Mr Murfin indicated that RCC has successfully used the material in some applications and have developed skills in using the material. There were no formal guidelines available for using the material. He was surprised, however, that the RCC was using the material other than in low traffic/low speed areas. He stated that the material tends to unravel and the aggregate can separate on the surface and roll around. He acknowledged that there are some issues with using this material as a road base.
34. Mr Murfin was provided with the details of some of the other roads in the area where this material had been used by RCC. He inspected Fiddes Street which he described as running across a swamp. He stated that the road had a 50-60 km per hour speed limit and had low usage by light vehicles. He stated that the surface was in poor condition, was unravelling in places and had been patched. He accepted that the surface was serving its purpose. He was unable to inspect any other sites but had revisited the incident site and advised that the surface was in pretty good condition and had tightened up. He stated that it was a reasonable surface to drive on but was not as smooth a surface as asphalt. It would equate with a spray seal surface.

**SIGNAGE**

35. Mr Murfin stated that best practice in the circumstances of this road would have been to have warning signs erected to warn road users to the fact of repairs having been conducted on the road and alert them to changed conditions. The signage he would think appropriate would include:
- (i) Changed Traffic Conditions
  - (ii) Loose Surface
  - (iii) Signage indicating speed restriction
36. Sgt Pimm was of the opinion that signage was necessary and directed signs to be erected whilst he was at the scene to indicate reduced speed, change of conditions and loose stones. Given the changes to the road surface from the pre-existing conditions and the many variables relating to the rate of compaction of the asphalt profilings it might have been prudent to also reduce speed limit until surface had settled.
37. Sgt Pimm further commented that the widening of the road in the roadworks had increased the proximity of road signs (such as a school bus sign) to edge of the road and this may have impacted on the pressure on Mrs Steggall once the vehicle was off to the left of the roadway and therefore in the vicinity of the sign. The Sgt thought that the sign should have been moved prior to the road being opened to vehicles.
38. The RCC workers were operating under the Main Roads document - **Manual of Uniform Traffic Control Devices (part 3 – 2007 Works on Roads)** – in relation to the use of signage during roadworks. **Clause 2.7 (page 18) Removal** requires *“signs and devices be removed or concealed from view as soon as any activity is completed or a hazard ceases to exist”*. Elsewhere in the manual there is reference to *“Loose Stones”* signs being erected where there is *“excessive”* stone on the surface. Both requirements rely on the subjective assessment of the persons undertaking the task rather than requiring any objective evaluation by, for instance, a supervisor. It would seem prudent for the manual to make reference to the possibility that signage needs to be deployed following the roadworks, for instance, until the road surface has compacted properly. It may be, of course, that the signage is different to that employed during the activity of roadworks itself. The requirements should err on the side of caution, especially as to the restriction of speed, in such cases.

***FINDINGS required by s43(2)***

I am required to find, so far as has been proved on the evidence, who the deceased was and when, where and how she came by her death. After consideration of all of the evidence and exhibited material, I make the following findings:



**Identity of the deceased** – The deceased was Rhonda Joy Steggall.

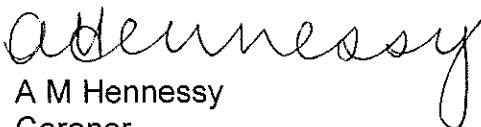
**Place of death** – Mrs Steggall died at the scene of the accident on Nine Mile Road, Pink Lily via Rockhampton.

**Date of death** – Mrs Steggall died on 21<sup>st</sup> December 2006.

**Cause of death** – Mrs Steggall died after the vehicle she was driving was involved in a single vehicle incident. It is likely that Mrs Steggall's vehicle veered to the left side of the roadway, which had been repaired on the day prior to the incident, possibly as a result of a softer surface with some loose stones. On correction of the vehicle's path by Mrs Steggall, the drivers side tyres bit into the spongy surface of the roadway, causing the vehicle to roll over multiple times before coming to rest in bushland. The cause of death was cerebral contusions and lacerations due to or as a consequence of a fractured skull resulting from motor vehicle trauma.

### ***RECOMMENDATIONS***

1. That the Department of Main Roads consider changes to the Manual of Uniform Traffic Control Devices (part 3 – 2007 Works on Roads) in order to positively require signage to remain in place until the hazard ceases to exist or to warn of a change in road conditions including changed lane width, changed grade or physical attribute of the road surface including roughness or slipperiness of surface.
2. That in the interim, Rockhampton Regional Council routinely displays appropriate signage at roadwork sites following completion of the work to alert drivers to changed conditions and nature of those conditions until any hazard potentially arising from the road conditions is resolved.
3. That the Rockhampton Regional Council restrict the use of recycled asphalt profilings to low usage or low speed areas, and that prior to any such use, guidelines for the use of the material be developed and independently assessed for safety to road users by an expert.



A M Hennessy  
Coroner  
17/12/08