QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Scott Anthony Bennett**
TITLE OF COURT:	Coroners Court
JURISDICTION:	Toowoomba
FILE NO(s):	2012/334
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FINDINGS OF:	John Lock, Deputy State Coroner
CATCHWORDS:	Coroners: Motor vehicle crash, road train jack-knife, mechanical defects, road design.

REPRESENTATION:

Counsel Assisting:	Dr A Marinac, Office of State Coroner
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Counsel for Gary McGrath:	Mr B Skuse I/B David Burns Lawyers

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Introduction

Scott Anthony Bennett was driving a four-wheel-drive (4 WD) towing a caravan on 25 January 2012. His wife was a passenger and they were heading west on the Warrego Highway, near Jondaryan. The roads were wet from recent rain.

At the same time, a prime mover road train attached with two semitrailers and a dolly, was approaching from the opposite direction. The prime mover crossed into the westbound lane of travel and was seen to be moving in a sideways direction directly towards Mr Bennett's motor vehicle. There was no opportunity for Mr Bennett to take evasive action and a collision occurred with the front left-hand passenger side of the prime mover causing catastrophic damage to the 4 WD. Mr Bennett suffered serious injuries, which caused his death at the scene. His wife suffered serious injuries but she survived the collision.

The driver of the road train provided a short interview with police at the scene. Subsequently he and his employer, St George Freightlines, refused to cooperate with the police or coronial investigation.

The Forensic Crash Unit investigated the circumstances of the crash. The road train was the subject of a mechanical inspection and the opinion produced was that it was in an overall dangerous condition with reduced efficiency and unpredictable braking characteristics due to imbalances within the brake systems. As well there were suspension faults in the two trailers.

The Department of Transport and Main Roads (TMR) also prepared a detailed report concerning the surface friction of the road at the scene as well as a safety analysis of the configuration of the intersection. Concerns in relation to both of these matters were expressed.

Inquest and issues

Mrs Bennett requested that an inquest be held. Given there were some considerable uncertainties in relation to a number of issues, a decision was made to hold an inquest. The issues established at a pre-inquest hearing were as follows:

1. The issues outlined in section 45(2) of the *Coroners Act 2003*, namely the identity of the deceased person; when, where and how he died; what caused his death; and the circumstances leading to the death.

2. The driving conduct of the driver of the road train heavy vehicle involved in the collision as well as the mechanical condition of the road train.

3. The condition, layout, and engineering of the roadway and road surface at, and near, the site of the collision.

4. Whether there are ways to prevent a similar death from occurring in the future.

The scope of the Coroner's inquiry and findings

There has been considerable litigation concerning the extent of a coroner's jurisdiction to inquire into the circumstances of a death. The authorities clearly establish that the scope of an inquest goes beyond merely establishing the medical cause of death.

An inquest is not a trial between opposing parties but an inquiry into the death. The focus is on discovering what happened, not on ascribing guilt, attributing blame or apportioning liability.

The purpose is to inform the family and the public of how the death occurred with a view to reducing the likelihood of similar deaths. As a result, the Act authorises a coroner to make preventive recommendations concerning public health or safety, the administration of justice or ways to prevent deaths from happening in similar circumstances in future. However, a coroner must not include in the findings or any comments or recommendations, statements that a person is or maybe guilty of an offence or is or maybe civilly liable for something.

The Admissibility of Evidence and the Standard of Proof

Proceedings in a coroner's court are not bound by the rules of evidence because the Act provides that the court '*may inform itself in any way it considers appropriate'.* That does not mean that any and every piece of information however unreliable will be admitted into evidence and acted upon. However, it does give a coroner greater scope to receive information that may not be admissible in other proceedings and to have regard to its origin or source when determining what weight should be given to the information.

This flexibility has been explained as a consequence of an inquest being a fact-finding exercise rather than a means of apportioning guilt. As already stated, it is an inquiry rather than a trial. If a witness refuses to give oral evidence at an inquest because the evidence would tend to incriminate the person, the coroner may require the witness to give evidence that would tend to incriminate the witness if satisfied it is in the public interest to do so. The evidence, when given, and any derivative evidence is not admissible against the witness in any other proceeding, other than a proceeding for perjury.

A coroner should apply the civil standard of proof, namely the balance of probabilities but the approach referred to as the *Briginshaw* sliding scale is applicable. This means that the more significant the issue to be determined, the more serious an allegation or the more inherently unlikely an occurrence, the clearer and more persuasive the evidence needed for the trier of fact to be sufficiently satisfied that it has been proven to the civil standard.

It is also clear that a coroner is obliged to comply with the rules of natural justice and to act judicially. This means that no findings adverse to the

interest of any party may be made without that party first being given a right to be heard in opposition to that finding.

If, from information obtained at an inquest or during the investigation, a coroner reasonably suspects a person has committed a criminal offence, the coroner must give the information to the Director of Public Prosecutions in the case of an indictable offence, and to the chief executive of the department which administers legislation creating an offence which is not indictable.

Autopsy results

An autopsy examination found multiple traumas. They included a crush injury to the right side of the chest with flail segment, multiple rib fractures and the production of a haemothorax and pneumothorax and ruptured diaphragm. There was an extensively ruptured liver with haemoperitoneum. There were multiple leg and arm fractures and a non-displaced cervical spine fracture between C5 and C6.

The cause of death was due to hypovolaemic shock due to a haemothorax and pneumothorax due to the multiple rib fractures as a result of the motor vehicle accident. The other injuries contributed.

Social History

Mr Bennett was aged 46. He had been married to Patricia Bennett since 1994. They had one daughter.

Mrs Bennett explained that camping, caravanning and boating was very much a lifestyle activity for the family. They were collecting a new caravan that day.

Mrs Bennett suffered significant personal injuries herself. She clearly remains distressed about the loss of her husband in these circumstances.

The Forensic Crash Unit investigation

A forensic examination was conducted of the scene. The Forensic Crash Unit (FCU) provided a report to the coroner. The lead investigator was Senior Constable West who was also the first response officer on the scene. SC West knows this section of the Warrego Highway well and would have driven over it up to five times a week for the past 10 years.

Although he considered the intersection in question problematic he had never seen any crashes there before.

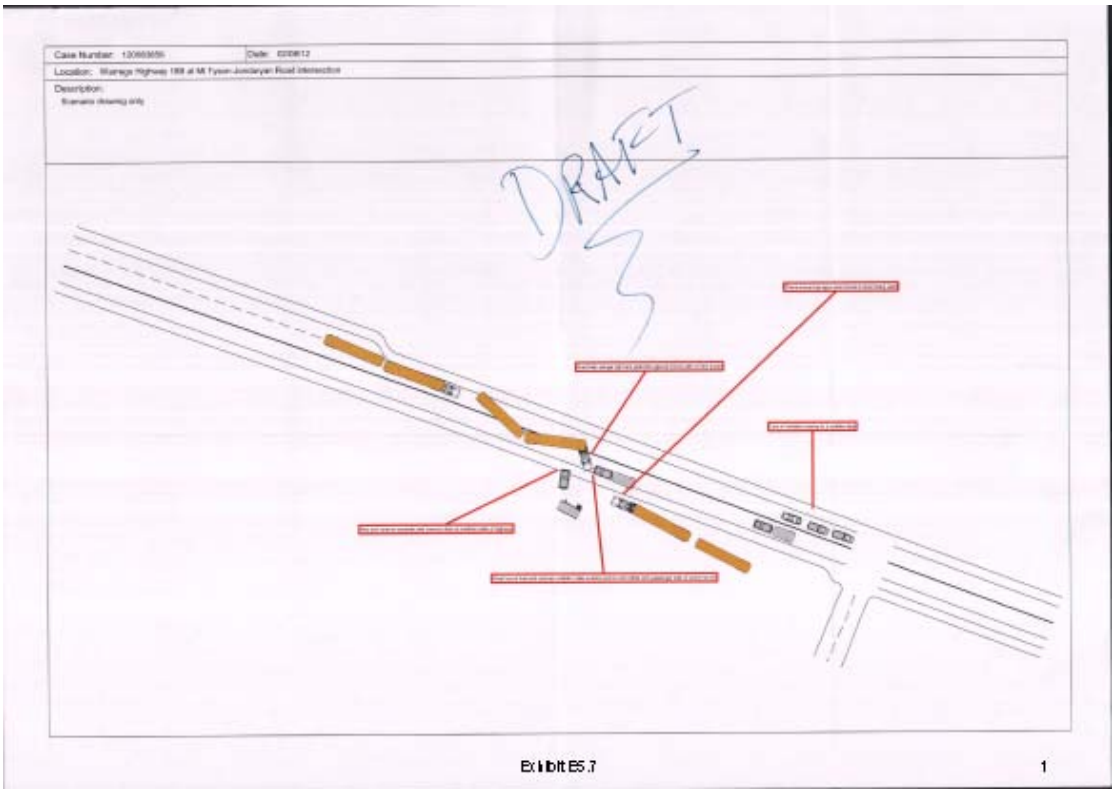
As the first response officer he needed to manage the traffic build-up around the crash area as a matter of priority. The injured people were being attended to. Once other police arrived, he was able to speak to a number of people including the driver. He was appointed the lead FCU investigator later that afternoon. SC West has done the basic forensic crash unit training as well as having significant practical experience. Senior Constable Coote also assisted.

FCU report on Scene Observations and Conditions

The crash occurred at about 3pm on Wednesday, 25 January 2012. Mr Bennett, accompanied by his wife Mrs Patricia Bennett, was travelling west on the Warrego Highway, near Jondaryan. At the point of the collision, the Warrego Highway consists of two sealed lanes – one in each direction.

Photograph of end of overtaking lane merge and approaching the intersection

Scenario Drawing showing movement of Road Train



Although it was not raining at the time of the collision, the road surface was wet from previous rain that day.

Mr Bennett was driving a Mitsubishi Pajero four-wheel-drive wagon and was towing a caravan. The evidence indicates they were travelling within the default speed limit of 100 km/h.

Just after they passed (on the left) the Jondaryan Mount Tyson Road turnoff, Mr Bennett was presented with a Kenworth prime mover, to which two semitrailers (A & B trailers and a dolly) were attached in a road train configuration, driven by Gary Winston McGrath and approaching from the eastbound direction. The prime mover was seen crossing into his westbound lane of travel. The prime mover was in fact moving in a sideways direction towards Mr Bennett's vehicle.

It was estimated that Mr Bennett had about 1.56 seconds to take evasive action, having regard to the closing speeds between the two vehicles of perhaps 185 km/h. SC West stated that as a matter of practicality Mr Bennett had no opportunity or options to avoid the crash. There was nothing evident in Mr Bennett's driving conduct that contributed.

His car collided with the front left-hand passenger side of the prime mover, causing catastrophic damage to the four-wheel-drive, and destroying the caravan under tow. Mr Bennett suffered serious injuries, which caused his death at the scene. Mrs Bennett suffered serious injuries, but survived the collision. The truck driver and his passenger suffered minor injuries.

The unusual position and angle of the prime mover which collided with Mr Bennett's vehicle suggested to SC West that the road train had 'jack-knifed' prior to the collision. In particular, damage to the prime mover's driver's door and the front of the A trailer was consistent with the prime mover being in a jack-knife position with the prime mover rotated fully to the driver's side and wedged against the front driver side of the A trailer.

The evidence from a number of witnesses confirms jack-knifing only happens under braking conditions.

Of note and despite the heavy vehicle jack-knifing and sliding prior to impact, there were no tyre marks indicative of this. SC West would have expected to see skid or yaw marks on the roadway. There was only a yaw mark on the road and into the grass verge area from the rear B trailer. This indicated to the investigating officer the road surface had a low friction value.

The road surface was wet at the time of the crash due to a recent shower of rain. The road itself was sealed but TMR conducted tests of the road surface, which indicated it had deteriorated and had a differential friction value to the surrounding parts of the road surface with a low coefficient of friction making the area in question slippery, particularly when wet.

At the intersection with Jondaryan Mount Tyson Road and the Warrego Highway there are fog lines on both sides of the highway and there was a

double line separating both lanes of the highway. At the intersection the double line breaks to allow vehicles to turn into Jondaryan Mount Tyson Road.

On the western side of the intersection, the eastbound traffic travel on double lanes, where vehicles travelling east towards Oakey can overtake.

The eastbound double lanes merge about 96 metres prior to the Jondaryan Mount Tyson Road. At a speed of 100 km/h a vehicle would cover this distance in four seconds.

The investigation found that the road train driven by Mr McGrath pulled into the left lane enabling two vehicles to overtake the road train utilising the overtaking lane.

The road train then exited the left-hand lane in the overtaking section of the highway, and merged back into the single eastbound lane.

Opposite the intersection on the northern side of the highway, the tarmac is extended past the fog line and forms a lane, so that vehicles can pass other vehicles that are turning right into the Jondaryan Mount Tyson Road. There are no road markings or signs to indicate that another lane exists. SC West was able to confirm that the Queensland Road Rules provide that it is a legal manoeuvre for a motor vehicle to pass to the left of a motor vehicle stopped or turning right in this situation.

The investigation revealed that ahead of the road train were two vehicles stopped on the highway, waiting to turn right into Mount Tyson Road. At the same time, perhaps two or three other vehicles were in the process of taking action by veering to the left around the cars that were stationary and waiting to turn right.

A forensic examination found there were road surface skidmarks from the eastbound lane into the westbound lane and a yaw (curve) in that direction. There were skidmarks on the northern side of the road, located in the grass verge, with the skidmarks consistent with the trailers swinging around behind the prime mover.

The prime mover was searched and a driver's log book was located. The log book had not been filled in since 30 December 2011.

The driver of the prime mover submitted to a road side breath test, which was negative for alcohol. There were no drug induced indicia being displayed.

Although there is evidence of possible tampering with the disabling of the speed sensor within the Engine Control Module, witnesses who were following the road train placed the vehicle’s speed within the speed limit of 100 km/h.

Senior Constable West concluded there were four major factors as to why the prime mover crossed over onto the wrong side of the road. He concluded in order of significance that the factors that influenced this were:

1. The wet road surface.
2. The engineering of the roadway and the likelihood of the bunching up of traffic at the intersection.
3. The flushing of the road surface.
4. The mechanical condition of the prime mover and trailers.

Mechanical Inspections

A mechanical inspection was conducted by Andrew McLaren a qualified mechanic and a Vehicle Inspection Officer of some 10 years experience for Queensland Police. Mr McLaren also had a heavy rigid truck licence and experience in the army reserve with driving trucks with trailers. At the inquest he also produced a series of photographs taken of the various vehicles and in particular areas of concern that he identified.

In relation to the prime mover he was of the opinion that it was in an unsatisfactory mechanical condition due to the non-operation of the left and right steer axle brakes due to their adjustment with excessive brake lining to brake drum clearance. Their non-operation was consistent with the front brakes being backed off to prevent steer wheel lock-up. This is apparently not an uncommon practice in the transport industry, although Mr McLaren stated he sees it less often these days. Mr Frank Loughlin indicated in his evidence the backing off of the steer brakes was the company's adopted practice. Otherwise the drive brakes were in good condition

In relation to the A trailer the Australian Code of Practice industry standards in relation to the push rod stroke of the drum brakes, which were a 30/30 design, required adjustment at 50.8 mm travel. After 50.8 mm of travel braking efficiency begins to reduce and the brakes stop operating at approximately 63.5 mm push rod travel. In this case he found the first axle left brake pushrod stroke was 55 mm and the brake linings were extensively worn with brake lining rivet contact. The first axle right brake pushrod stroke was 57 mm and the brake linings were of a satisfactory thickness, however, the lower brake shoe was misaligned and protruding from its brake drum.

The second axle left brake push rod stroke was 62 mm and the second axle right pushrod stroke was 65 mm with all brake linings extensively worn and the rivets contacting the brake drum.

He saw that the third axle left brake pushrod stroke was 52 mm and the third axle right pushrod stroke was 58 mm and all brake linings were of a satisfactory thickness.

He was of the opinion that the A trailer was in a dangerous condition due to the brakes. The efficiency of the brakes was reduced with an imbalance between the brakes.

In relation to the Dolly he noted the brakes were in an unsatisfactory condition due to the condition of the brake linings and adjustment. The first axle left brake linings were of an unsatisfactory thickness and worn to have rivet

contact on the brake drum. The first axle right brake lining thickness was satisfactory however worn to a replacement condition. The first axle left and right push rod strokes were 58 mm.

The second axle left brake linings were of an unsatisfactory thickness and worn to have rivet contact on the brake drum. The second axle right brake lining thickness was satisfactory however worn to a replacement condition. The second axle left pushrod stroke was 59 mm and the right pushrod stroke was 57 mm.

He inspected the suspension and saw the suspension was in an undesirable condition due to wear in all trailing arms bushes, which were worn to a replacement condition.

He was of the opinion that the Dolly was in an unsatisfactory condition due to the brakes. The efficiency of the brakes was reduced with the potential of an imbalance between the brakes.

In relation to the B trailer the first and third axle brake chambers were a 20/30 design in which the pushrod stroke required adjustment at 44.4 mm of travel. After 44.4 mm of travel braking efficiency begins to reduce and the brakes stop operating at approximately 57.2 mm of pushrod travel. The second axle was fitted with a 30/30 chamber with operating parameters as already set out.

He was of the opinion the brakes were in a potentially dangerous condition due to the unsatisfactory condition of the majority of the six brakes.

The first axle left brake pushrod stroke was 45 mm and the brake linings were in a satisfactory condition. The first axle right brake pushrod stroke was 62 mm and the brake linings had no contact on the brake drum due to an over centred S-Cam.

The second axle left brake pushrod stroke was 20 mm and the brake would have had no contact on the brake drum due to an over centred S-Cam. This had essentially seized up and was not functioning at all. The second axle right pushrod stroke was 38 mm and brake linings were extensively worn with the rivets contacting the brake drum.

The third axle left brake pushrod stroke was 48 mm and the brake linings worn with rivet contact on the brake drum. The third axle right pushrod stroke was 45 mm and its brake linings were of a satisfactory condition. He was of the opinion that the B trailer was in a potentially dangerous condition due to the brakes. The efficiency of the brakes was reduced with an imbalance between the brakes.

His overall opinion on the combination road train was that it was in an overall dangerous condition due to reduced efficiency and an unpredictable braking characteristic due to imbalances within the brake systems.

He saw suspension faults in the A trailer and Dolly however these faults were not serious enough to have adversely affected vehicle operation at the time.

Mr McLaren produced a number of photographs which recorded and highlighted the concerns he observed. He did not believe most of the defects were due to accidental damage. They were consistent with long term wear and lack of maintenance. There were some areas of the brake drum, which showed rusting which was not of a recent origin. One of the push rods in the Dolly clearly showed red paint marking indicators to warn they need adjustment.

He agreed the brakes overall would have been partly operable but with reduced efficiency and an imbalance which makes it quite unpredictable and unknown as to what would happen on the road when you needed to apply emergency braking.

He quite properly conceded he could not say the extent to which the brakes contributed to what occurred but they would have to some extent.

Mr McLaren was cross examined by counsel for the Loughlin Family interests. He impressed me with his evidence, making appropriate concessions but overall his evidence was highly critical of the condition and maintenance of the braking systems.

Mr Frank Loughlin gave evidence from his extensive experience but I was not at all confident of his independence and have largely disregarded his evidence where it conflicts with Mr McLaren.

The prime mover was also subject to an inspection by Richard Lilburn, a mechanic employed by Brown and Hurley. He conducts computer downloads on heavy vehicles for servicing and monitoring requirements. He downloaded the information from the prime mover on to his laptop. Having read the download he found that the vehicle speed sensor within the Engine Control Module had been disabled. As a result, it was not possible to independently determine the vehicles pre- impact speed via the ECM. He noted that it is against the Australian Design Rule for dealers to disable the vehicle speed sensor.

Mr Loughlin stated he was unable to explain this and queried some of the speed figures that had been shown on earlier data before it had been disconnected. I find that all very convenient.

The Evidence of Eyewitnesses

Patricia Bennett

Patricia Bennett described her husband as a very experienced, competent and good driver. They were travelling to pick up a new caravan and had organised their journey to reduce fatigue. Over the hours of the return trip, and in particular on the Gold Coast motorway and Logan Motorway, she described

how her husband had been testing the capabilities of the new caravan and car combination and he was feeling very comfortable with it.

The vehicle was travelling between 95 and 100 km/h. There had been rain during the journey but it had stopped, however the roads were wet.

As they neared the Mount Tyson turnoff she looked up and observed a truck jack-knife in front of her. The truck cabin was halfway in their lane about 70 or 80 m in front. She recalls her husband reacting with a loud voice and said something like ‘if we go that way we roll’. She has little recollection from this point. She believes she was told at the scene that her husband had passed away.

Mrs Bennett suffered serious injuries and has a number of continuing physical concerns as well as the loss of her husband.

She was of the opinion the truck driver was not driving to the condition of the road.

Other Eyewitnesses

A number of other road users witnessed the events and gave statements and evidence at the inquest. They included Bronte Bucholz, Roy Gale, Cassie Lawrence, George Nemeth, Gregory Peet, Matthew Reynolds and Emily Simon (Watson). A number of the witnesses rendered assistance and Mr Peet in particular should be commended for the considerable assistance he rendered at the scene.

A number of the witnesses were familiar with the particular intersection and the fact of the close proximity of the end of the merge of the overtaking lane and the turn right ahead. Two drivers, who were in fact turning right, described they had adopted defensive driving techniques to ensure traffic travelling behind were aware they were going to turn right and give some advance warning.

Unsurprisingly all witnesses recall the roads were wet and the jack-knifing movement of the prime mover road train.

One driver, George Nemeth thought the vehicles had collided on the centre line and the prime mover then jack-knifed. Other witnesses described the jack-knifing of the road train and then the collision with the other vehicle. The latter evidence is most certainly the likely scenario.

Some of the witnesses were travelling in close proximity to the road train and confirm it was travelling at around the 90 km/h mark.

One witness, Roy Gale, recalls seeing the rear trailer buck up and kick out into the air as if it had been rear ended. The front trailer did the same but to a lesser degree and then the prime mover jack-knifed to the right.

Bronte Buchholz recalls seeing the prime mover in his rear view mirror travelling at the same speed he was. He had not passed it but was aware it was behind him but at a close enough position to warrant him ensuring he had put on his right turn indicator a good distance away (300 metres he thought) and braking and using his brake lights (estimated from 150 metres away). This was to give a signal he was turning and not just moving from the overtaking lane to the right lane. As an extra precaution he remained in the right lane and did not venture into the left lane at all.

He recalls other colleagues were ahead in their utility and already at the intersection with Mount Tyson Road and he recalls putting his indicator on to turn right early, to give the truck a bit of warning. The other utility turned right through some traffic but he needed to stop and wait for a break in the traffic to turn. He came to a complete stop for a couple of seconds. He then heard a noise such as metal on metal. He then saw the prime mover and the trailers in his rear vision mirror at 90° across the road and skidding towards him. He thought he could be hit by the prime mover and immediately accelerated and drove straight ahead to avoid being hit. He did not recall if other vehicles had passed on his left whilst he was stationary.

Roy Gale was travelling west along the Warrego Highway. He was travelling at about 95 km/h. He recalls a dark four-wheel-drive towing a caravan overtaking him. At this stage he could see the bitumen was wet. There was nothing unusual about the overtaking manoeuvre.

He saw a car stopped at the intersection with Mount Tyson Road facing east and then turn into Mount Tyson Road. He then saw probably about three cars behind the one that had turned, go to the left and then he saw a road train. It seemed to him the road train had a bit of room between the cars in front and he then recalls seeing the rear trailer buck up and kick out into the air as if it had been rear ended. The front trailer did the same but to a lesser degree. He recalls seeing the prime mover of the road train jack-knife by swinging around to the right pointing across the road and into the oncoming lane.

The trailers then followed the prime mover around and swung a full 180°. He was close to the intersection with Mount Tyson Road and decided to immediately turn into it to avoid any potential collision. He was a matter of only 10 metres away from the road train by this time.

Cassie Lawrence was travelling west along the Warrego Highway. She was following a number of vehicles including the four-wheel-drive towing a caravan. She then saw a vehicle up ahead, which had turned right across into the side road and she thought this was ‘a bit fine’ even dangerous.

She then saw the prime mover towing the trailers starting to move into her lane and then the truck spin 180° and both trailers followed the truck. She applied her brakes to pull up quickly and turned left into the side road.

George Nemeth was an experienced truck driver in heavy rigid vehicles. He was travelling west at about 95 km/h given his truck has a speed limiter set at

96 km/h. The roads were wet but not sufficient to change his driving behaviour.

He recalls a 4WD with a caravan travelling approximately 200 m in front of him. The 4WD was travelling at the same speed as his vehicle.

He then saw a road train travelling eastbound towards him and saw both vehicles collide on the centre line. He does not recall the trailers kicking up. He does not recall seeing any brake lights activated on the caravan nor did he see any vehicles travelling or stopping in front of the prime mover.

He then saw the road train had started to jack-knife in front of him and was taking up the whole road. He was forced to hit the brakes and cut across the eastbound lane to avoid a collision with the trailer and finished up in the scrub on the eastbound side.

Gregory Peet was travelling east. He entered a section where there were double lanes each way and saw a road train in front of him in the left lane. He was travelling at around 95 km/h and was gaining but not rapidly on the road train. He then recalls seeing the road train merging into the single lane where the double lanes ended. He does not recall seeing any brake lights or indicator lights. As the road train was merging he saw it jack-knife and cross to the wrong side of the road. The prime mover appeared to be at 90° to the direction of travel of both trailers. He does not recall any brake lights or seeing the back trailer buck up.

Emily Watson was travelling behind the road train and confirms it was going at about 90 km/h.

She recalls coming to the overtaking lanes on the eastern side of Jondaryan and as soon as the truck pulled into the left lane she took the opportunity of overtaking. She recalls not having to go over 110 km/h to gradually overtake the truck. She recalls seeing a utility also following behind her when overtaking the truck.

After exiting the overtaking lanes she saw a white utility ahead of her which braked and swerved to the left. She then saw another white utility that was stationary with its brakes on and indicating to turn right. In her statement she said she gently pressed her brakes to slow down and swerved to the left and followed the first utility around the vehicle that was turning right. In her evidence she felt it was not safe to slam on the brakes and stop behind the vehicle turning right and felt it was more of an emergency move.

She recalls looking in her rear vision mirror and saw the road train jack-knife.

Robert Brooker

Robert Brooker was an experienced truck driver who said he worked for St George Freightliners at the time. He was travelling with Gary McGrath from Toowoomba to Tara. When he arrived at the Toowoomba depot in the

morning he could see the driver doing his checks on the trucks including the oil, lights and tyres.

They travelled to Tara where he performed a number of deliveries in another vehicle and then they were returning to base in Toowoomba. Gary McGrath did all the driving in the truck. The trip was uneventful and there were no problems with the driving of Mr McGrath. There was no rain but water was on the roadway.

The trailers had only a few empty beer kegs in them. He stated that it needed a lot of concentration and skill and experience to drive a road train particularly with the effects of the second trailer. He had never experienced or been involved in a jack-knife incident. He said he regarded Mr McGrath has a competent driver.

He also gave evidence that St George Freightlines was a company that maintained its equipment well. At the time of giving evidence he was not working with the company. He explained how truck drivers would need to complete a check of the truck before leaving the depot. He was shown a manual and checklist, which was said to have been in the glovebox of each motor vehicle. He did not recall this document or a requirement to complete a checklist before getting paid at the end of the week. Subsequently the company provided a copy of such checklists and it is evident Mr Brooker was mistaken about this issue.

He recalls they were travelling in the left lane at about 90 km/h. Near the end of the overtaking lane he looked forward and could see that traffic ahead was slowing very quickly and it seemed that there was a car stopped near the intersection with a side road. He did not understand why the traffic was coming to a halt but believed there was considerable distance between the truck and the last car and did not feel the need to panic at this moment.

When asked whether there was enough room between the truck and the traffic ahead to stop, he said ‘absolutely’.

He recalls they were still in the left lane and was about to say something when Gary braked. The braking did not seem to be excessive and was a normal slowdown application and not emergency braking and should have left the driver in control. Once Gary depressed the foot brake for some reason the truck started to slip sideways. He thought Gary had it under control and they were safe when all of a sudden the truck went into a slide again and Gary was having a battle to control it. The truck jack-knifed and he was looking out the passenger window and could see a 4WD heading west into its path.

He did not recall any sensation of the rear trailer rising up or hearing a loud noise.

He stated he was unable to recall if Gary had his seatbelt on but he did not think that he was wearing a seat belt.

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He did not think Gary could do any more to prevent the collision once the slide commenced.

The Evidence of Gary Winston McGrath

Recorded Evidence at the Scene

Mr McGrath provided an initial version at the scene, which was recorded by police.

He admitted he was the driver of the St George Freightlines truck. He was heading from Tara to Toowoomba. He volunteered to police that he had not filled out the log books.

He said someone had stopped waiting for traffic to come through and the traffic banked up real quick. He hit the brakes and locked up the truck and was skidding around and it then jack-knifed in front of the other vehicle which clipped him and spun him around.

He said he tried hanging on to it as all the trailers were sliding around in the truck and went out of control and spun around him. The 4WD hit the prime mover at the back of the wheels. He stated that the trailers stayed straight but jack-knifed and pushed the prime mover out.

He stated he had come over the crest of the hill and everything was going fine and everyone merged into the lane and then he could just see red lights so he has gone and hit the brakes.

Unsigned Statement

Mr McGrath subsequently told police he would not attend and give a formal statement.

Shortly prior to the inquest, my office received an unsigned statement, which was dated 1 February 2012. It was said this was prepared with the assistance of a non-legal adviser to the company.

Mr McGrath has self acknowledged very poor reading and writing skills and he would not have been able to read this statement. He had reached grade 10 through Special School attendance. It is evident he has some degree of intellectual impairment.

The statement provides details of his experience and driver's licence and he stated he would be classed as a very experienced driver.

It is apparent he has had multiple numbers of breaches for log book infringements and his licence has been suspended for such breaches. He states he had difficulty reading and understanding a lot of the requirements and most of the breaches came about by him not adding up the hours properly. Apart from a speeding ticket in his private vehicle he has not had any other infringements when operating trucks.

He stated he has had one other road incident where he was driving a road train for the same company. Fatigue was an issue and he ran off the road and hit a tree.

He then provides details of the weather conditions and the road at the scene, which are uncontroversial.

In relation to the prime mover and trailers he said the servicing of the vehicles is left to the company's mechanical section, which has a bring up service to cater for each unit. His responsibility is to report any faults or bald tyres.

He gives details of the early events of the day, which appear to be uncontroversial. He states that up to the crash scene he was driving within the speed limit as they had finished their work and he was not in a hurry to get home.

He was not taking any medication and had not drunk any alcohol for a number of days. He was not fatigued in any way.

He states he was focused on the road ahead and other than having a general conversation with the passenger there were no other distractions.

He states that at no time did he see the four-wheel-drive and caravan coming towards them.

He states that as he entered the overtaking lane he moved over and was travelling at about 90 km/h. One car was following him and overtook him.

The overtaking lane is about 1.5 km in length. As he approached the merging lanes he did not see the 4WD coming towards him. His attention was focused on the traffic in the other lane ahead of him. He noticed that the vehicle that had passed him was in a line of five to six other vehicles. He could see that the lead vehicle had stopped and indicated to turn right across the road. The following vehicles were stopping abruptly behind this vehicle. He believes he was travelling at about 85/90 km/h down the passing lane. As he merged the other vehicles were about 100 m ahead of him. He straightened up and slowed his truck down but then when looking back saw the traffic basically stopped and he immediately hit the brake pedals very hard so that all brakes on the truck, trailers and dolly would come on.

The brakes worked immediately and the prime mover started skidding out of control on the wet bitumen. The trailer and dolly were still straight at this time. The prime mover drifted over to the right a little and he corrected it and it came straight. All of a sudden the truck swung out to the right and caused the trailers to jack-knife.

The next thing he knew the 4WD and caravan collided with the front passenger side of the prime mover. After colliding, the truck went into a 180° turn to the right and ended up facing the wrong way in the gutter on the other side of the road. The two trailers were straight behind him.

The police took possession of his log book, which was not filled out for the day. His understanding is that with a trip of 200 km radius, filling out log books is not necessary but you have to have some records and he had a trip sheet, which he gave to the police.

He believes the accident was caused solely by the driver of the vehicle that was turning across the highway. He must have pulled up suddenly causing the following vehicles to brake sharply. When he saw this happening he immediately applied his brakes but unfortunately the truck skidded on the wet surface and he lost control across the highway and collided with the 4WD.

He was not speeding and was not fatigued. The trailers were empty. He is aware that all of his brakes worked perfectly and were all still jammed on when the truck and trailer were removed. Prior to leaving the depot his responsibility is to check everything is in order. He checked the tyres and lighting and that the trailer and dolly were correctly hooked up. He also checked the loading was secure and tied.

Evidence of Mr McGrath at Inquest

Mr McGrath was 18 when he obtained his licence and has been driving heavy vehicles for seven years. He thought he was employed by St George Freightlines.

He agreed that on paper his traffic history did look bad. He agreed there was another accident in 2002 when he was driving a heavy rigid vehicle for St George. He applied the brakes at red lights and hit another vehicle. He agreed that on that occasion he had also performed the checks on his brakes but they did not work for some reason or another. He was not sure why.

He received a traffic infringement notice for driving an unsafe vehicle for the incident in which Mr Bennett was killed. He does not know the particulars of why the vehicle's brakes were unsafe. The company paid the ticket.

He had driven this particular prime mover for 12 months. He had not experienced any problems with it. He explained the checks he performs including building up air in brakes and testing that they engage by moving forward a few metres and stopping. He stated he was wearing seat belts as was Mr Brooker.

He was aware of the intersection and had no previous problems with it. He was aware of the T intersection sign and understood it meant that there was a spot ahead for vehicles to turn right. He stated he had been keeping an eye out for vehicles turning. He agreed he was able to see up to the intersection from a few hundred metres away. He stated he had not seen anything in particular until the last minute.

He gave somewhat different evidence about the number of vehicles that were ahead but agreed that one had turned, a couple went around and another one was stopped.

He agreed there would have been a couple of seconds whilst all this was happening and before he braked he was confident he would be able to pull up. He thought there was sufficient space.

In relation to emergency braking he stated that the aim was to try and brake hard and scan what was in the path. He said he had not experienced a jack-knife before and had no particular training for this event. He had not been taught that pulsing the brakes may assist. He did not know that trailers without loads make a difference in relation to braking characteristics.

He stated that the brakes locked up and he started skidding. He could not keep the rig straight.

He does not believe a tyre blowout occurred prior to the prime mover jack-knifing and believes he would have noticed it.

St George Freightlines

Company structure and ownership of prime mover and trailers

As a result of the adverse mechanical inspection reports, the coronial investigation unsurprisingly focussed some attention on the ownership, maintenance and service history of the vehicles involved. This uncovered a somewhat complicated family company structure.

One difficulty faced in this investigation was due to the uncooperativeness of the patriarch of the family, Ernest William Loughlin, to assist in determining which company or personal entities had responsibility for the maintenance and service of the various vehicles involved in this crash.

As a result of this uncooperativeness I issued warrants on all of the legal entities and persons identified to obtain the maintenance, ownership and other records for the vehicles. I will deal with the records separately, however the Loughlin Family have now acknowledged that they received some bad advice (not legal advice) on this issue. The family have since provided some clarity about the family company structures and ownership of the vehicles concerned.

The Kenworth prime mover bore Queensland registration number 241RQV. The prime mover was registered in the name of Frank William Loughlin. The name on the side of the vehicle was St George Haulage. Mr Frank Loughlin gave evidence the prime mover is in fact owned by his company FW Loughlin Transport Pty Ltd. This company employed Mr McGrath, the driver, despite Mr McGrath thinking he was employed by St George Freightlines. FW Loughlin Transport Pty Ltd receives the bulk of its income from informal sub-contracting arrangements with St George Freightlines.

The A trailer bearing Queensland registration 038QSQ, the dolly bearing Queensland registration 426QTO and the B trailer bearing Queensland registration 655QMZ were registered to a company Noonauto Pty Ltd.

Noonauto Pty Ltd has two directors and shareholders namely Benjamin Thomas Loughlin and Ernest Stephen Loughlin. Noonauto Pty Ltd trades as Loughlin Transport Equipment. Noonauto Pty Ltd repairs, refurbishes and manufactures trailers. It owns no prime movers and allegedly earns no income from St George Freightlines despite some of its assets being used in this case. This was apparently a common practice.

Jardinville Pty Ltd trading as St George Freightlines ABN 55552462025 was not the employer of Mr McGrath despite documentation from it to police stating he was an employee. The sole director is Ernest William Loughlin. It owns 15-20 trucks and has four truck drivers on its books.

Mr Brooker assumed he was employed by St George Freightlines. In fact he was employed by Grandeville Pty Ltd.

Ernest William Loughlin is also the sole director of Grandeville Pty Ltd, which owns some trailers and employs staff including seven drivers. It has a service agreement to provide services to Jardinville Pty Ltd.

J & N Loughlin Haulage has a sole director in Jeffery Loughlin (who is also a dentist) and it owns one truck and employs one driver.

They all have their principal place of business listed as 29 Carrington Road, Toowoomba or with other business addresses associated with each other.

Mr Frank Loughlin stated that despite the various company structures the whole group was a family operation. Although they do not appear to have any direct association as far as the Australian Securities & Investment Commission (ASIC) is concerned, Mr Loughlin said he and his brother Stephen (Ernest Stephen) were the people who would be thought by any reasonable person associating with them to be the managers of St George Freightlines. The patriarch Ernest Loughlin was still also involved in the family business but was lessening his involvement as he moved into retirement.

This rather relaxed view of the corporate structure is reflected in the record keeping for the maintenance of the vehicles.

Maintenance and service of the vehicles

The Department of Transport and Main Roads (TMR) advised that each of the vehicles were under the National Heavy Vehicle Accreditation Scheme Maintenance Module (NHVAS). TMR records did not show any defect notices and stated the history and any maintenance records would be held by the owner/operator.

Mr Frank Loughlin said that all of the equipment, no matter to which entity it was owned, was the subject of the accredited NHVAS, which was operated by Jardinville Pty Ltd under the banner of St George Freightlines. Mr Ken Phipps was apparently responsible for much of the record keeping for the NHVAS. Noonauto Pty Ltd employed Mr Phipps.

Mr Frank Loughlin stated that he is happy to accept that Jardinville Pty Ltd is the entity responsible for maintenance of the vehicles involved in this incident.

Warrants were issued for the maintenance records for each of the vehicles. What was received was generally poor in quality, and in my view not what would have been expected for what appears to be a reasonably sized business. It is apparent there may be other records available (such as Non-Conformance Notices), which were not initially produced.

Mr Frank Loughlin was questioned in relation to aspects of the records. It is fair to say the records do not give me a great deal of confidence that they show what maintenance has been provided to the units involved, nor the quality of that maintenance. Mr Loughlin agreed, in a significant understatement, that the paperwork was not as good as it should be.

As an example, some of the records for the Dolly are noted in a school exercise book. Other records appeared to have not been fully completed.

In relation to the A trailer, one document purports to record an inspection apparently performed by Frank Loughlin, including a brake skid test on 1 February 2012. This was at a time when the vehicles were still impounded by the police (they were not released until 5 March 2012).

A Dept of Transport Certificate of Inspection for this trailer was certified by Mr Ken Phipps on 3 February 2011. The owner of the unit is noted to be Noonauto Pty Ltd (by whom Mr Phipps is paid) but the inspection facility from which Mr Phipps was apparently inspecting the trailer appears to be Loughlin Bros.

Another example of what seems to be a conflict of interest is noted in the outcome of a Minor Vehicle Defect Notice issued by the NSW Roads and Traffic Authority on 13 January 2006. This related to brake linings and other brake issues for the A trailer. The records suggest an A service had been completed on this unit three days earlier on 10 January 2006. An inspection report dated 19 January 2006 and certifying the defects had been rectified was completed by Frank Loughlin under the banner of Loughlin Bros Transport Equipment.

Mr Loughlin disagreed that these examples showed concerns about potential conflicts of interest.

An A service was apparently performed on the prime mover on 23 November 2011. This service was signed by Mr McGrath who would not have been able to read the form. He allegedly would have performed this service under supervision although no other person is noted to have signed the form.

A manual is included with each of the trucks but he agreed that Mr McGrath's level of literacy was such that he would be unable to read it. He stated that Mr McGrath would have done some training in relation to the NHVAS and other aspects of maintenance and checklists, but none of this again gave me any particular confidence that Mr McGrath understood his responsibilities.

It is apparent Mr McGrath would have also done some of the services on these vehicles. Given his level of literacy he would not have been able to complete the service records and it was suggested that they would have had someone else fill them in for him. There was no peer review to check on his work.

After the equipment was returned to the family interests, and notwithstanding a man had been killed, Mr Loughlin stated he had a preliminary superficial look at the equipment. He said he was confident there were no problems with it even though he knew that for a vehicle to jack-knife this could only occur in braking conditions. He did not conduct an inspection or do an audit in relation to the maintenance paperwork for the units involved.

Mr Loughlin stated the vehicles were inspected by their inspection facility but he could not point to any records which confirmed such inspections.

Mr Loughlin said Queensland Transport did an audit of their NHVAS maintenance scheme shortly after and found some issues. He was asked whether the company had learned any lessons in relation to what they now knew. Other than that ABS braking may have helped and is a requirement on new vehicles now, he had no other ideas.

TMR Investigation

TMR prepared a comprehensive report. The report was authored by Mr Rick Vosper, then the Principal Engineer for the Warwick region. He is a professional engineer with well over 40 years experience.

His report raised questions as to the adequacy of safety elements in the design of the intersection of the Warrego highway and Mount Tyson Road, and in particular: –

i. the slippery surface of the highway in the vicinity of the prime mover's loss of control, especially in wet weather;
ii. the suitability of the present Basic Right Turn (BAR) intersection design as against the viability of a Channelised Right Turn (CHR) intersection;
iii. the wisdom of a 100 km/h speed limit through the relevant sections of highway;
iv. the adequacy of signage approaching the intersection from the west at the time of the collision.

The report prepared by Mr Vosper noted that the multi-combination road train vehicle was unloaded, which resulted in a minimum downforce on the drive and other wheels of the combination. The braking of the road train occurs from the front axle to the rear axle and there is a delay in the braking on each axle unless the combination is fitted with an electronic braking system. The axles brake in sequence from front to rear. This results in the momentum of the rear trailers transferring to the prime mover until the brakes on the trailers initiate and take over some of the braking effort to offset the vehicle's momentum. This can cause the wheels on the prime mover to lock up especially when the axles are carrying a minimum load. The consequence of

a lock-up of wheels on the prime mover is the possibility of jack-knifing. ABS braking systems will prevent or minimise the possibility of wheels locking up.

Without ABS, once jack-knifing of the heavy vehicle combination has commenced, steering of the vehicle is lost unless the driver releases the brakes and steering of the vehicle can be regained. The report noted that this all happens within split seconds and unless the driver is experienced with the performance of the vehicle when unloaded, it would be highly unlikely the driver would be able to regain steering control of the vehicle. Heavy braking of the combination only exacerbates the effect.

The investigation found that the heavy braking of the road train in this instance appeared to have initiated on a section of road which exhibited flushing of the bitumen. Although the road friction supply would be adequate during dry periods, the road friction supply is reduced on a wet road surface. The friction between the interaction of the rubber tyre and the road surface is maximised when the aggregate in the road surface is exposed and has a rough 'unpolished' micro texture on the aggregate surface. Water on the surface of the road and the aggregate also lubricates the tyre road interface which results in a reduced friction between the tyre and the road surface and increases the likelihood of wheel lock-up.

In this instance the road surface friction supply on the merge area was tested approximately one week after the crash. The testing of the road surface in the merge area indicated a wet non-ABS surface friction value of 0.50 g. Mr Vosper said the road friction when dry was not bad, but when wet was too low.

Essentially the testing, in layman's terms, showed that the texture of the sealed surface in the location where the prime mover would have been braking, was smooth, and when wet, was slippery. This defect was rectified, by improving the surface texture in November 2012.

It was noted that road surface deterioration as was apparent at the location, although caused by a combination of factors, is likely to be accelerated through greater localised friction demand. This friction demand is increased at conflict locations such as the overtaking lane merge immediately followed by the intersection present at this location.

Differential friction is undesirable at locations that require elevated friction demand through potential braking and steering or a combination of both. The report noted that this crash location falls into that category. Modern cars with sophisticated braking systems compensate adequately for differential friction surfaces, however, other vehicles such as trucks create a significantly higher risk factor for uncontrolled movements due to loss of traction.

Under braking, trucks that are empty or light loaded are susceptible to drive wheel lock-up on low friction or differential friction surfaces. Articulated trucks tend to jack-knife and rigid trucks have uncontrolled location dynamics.

The report noted that the speed of the prime mover at the time of the crash was unknown. The evidence in this case supports a conclusion the prime mover was travelling at or about the 90 km/h mark. The speed limit at the location was 100 km/h. The legal travel speed for road trains at the location was 90 km/h.

The report also noted that the Jondaryan-Mt Tyson Road intersection is 96 metres east from the end of the merge taper of the overtaking lane.

The Queensland Road Planning and Design Manual at clause 15.9 states:

> *Right turns that are downstream of an overtaking lane can also cause problems for the traffic flow. At worst, they can provide a higher degree of hazard due to the combination of a vehicle that is stopped while waiting to turn and the increased speed of the through traffic. Right turning vehicles may also cause traffic bunching to reform prematurely.*

The manual provides a desirable minimum spacing of 15 seconds of travel past the end of the merge taper.

Based on the speed limit of 100 km/h, the desirable spacing represented 417 metres. The report noted that the probability of a crash event occurring increases with a spacing distance of only 96 metres. The reasoning was that overtaking vehicles are more than likely to be travelling at high speed at the end of an overtaking lane and are not expecting to brake or slow down behind a right turning vehicle even if the turning vehicle is indicating.

The intersection at Warrego highway and Mt Tyson Road is classed as a Basic Right Turn (BAR) intersection. This layout provides for a slip lane for through traffic to go to the left of traffic turning right.

Surprisingly, the construction plan of the actual intersection was for an Auxillary Right Turn (AUR) and shows a ‘broken white line’ towards the bottom of the plan. This would seem to invite through traffic to move to the left. However, at this intersection, there were no broken white lines. Rather there was a continuous white line. Instead of inviting traffic to move to the left to overtake those cars waiting to turn right, the effect may well have been the opposite.

Mr Vosper explained that to construct an AUR it was not simply a matter of line marking. BARs are utilised in situations where there would be infrequent use of the left passing area. AURs require the overtaking pavement to be constructed for more frequent use.

The report considered the crash was caused by a number of contributing factors which were;-

(i) the wet weather;
(ii) the heavy braking of the road train;
(iii) the speed of the road train just prior to the crash;

(iv) the road train being unloaded at the time of the crash;
(v) the relatively low wet skid resistance of the road compared to dry conditions at the merge;
(vi) the closeness of the end of the taper of the overtaking lane to the Jondaryan Mount Tyson Road intersection.

It was recommended that:

(i) a VMS sign be installed on the eastbound lane warning drivers to take care during wet conditions; and
(ii) arrangements be made to have the road surface friction supply improved by eliminating the flushed bitumen surface. The temporary VMS warning signs will then be removed.

The TMR report noted that even though the BAR intersection layout already exists, the line marking does not indicate to drivers that a BAR layout exists and consequently following drivers may not decide to pass to the left of a right turning vehicle and may instead stop behind a right turning vehicle. This would result in the establishment of a queue behind the right turning vehicle restricting the use of the passing lane to other following vehicles further back along the queue.

The TMR report noted that another option for the intersection might be a Channelised Right Turn, or CHR intersection. Mr Vosper said that as the highway was much busier than previously the intersection had crept into that traffic volume to warrant a CHR. With a CHR intersection, all traffic is directed to the left, and right turning traffic must make a deliberate deviation back to the right to perform the turn.

TMR's report agrees this is desirable for that intersection. However, TMR also advises that this type of variation appears to be part of a 5–15 year plan, for that intersection.

The report noted a number of alternative suggestions which could include the speed limit for both the overtaking lane and the highway and at the intersection be reduced to 80 km/h as soon as possible. If there is no reconfiguration of the intersection, the reduction of the speed should be considered as a means of allowing a longer reaction time for all vehicles engaged in traversing this particular intersection and the adjacent overtaking lane. Signing such as flashing amber warning lights could also be provided for the benefit of eastbound traffic, to accentuate the approaching hazardous intersection.

Potential recommendations

Remedial works undertaken by TMR and proposed remedial works

Works to improve the surface texture at the location were completed in November 2012.

TMR advised that following the works in November 2012, the line marking was completed in accordance with current standards.

TMR advised that the original layout for the Intersection Indicated an Auxiliary Right Turn intersection. Construction of a full depth pavement would have been required to incorporate this line marking. However due to budgetary constraints the construction contract was amended to a Basic Right turn which had been operating since 2001.

TMR have advised that it is currently finalising the design of an upgraded Channelised Right Turn-short intersection as identified for long-term remedial works. It was anticipated that tenders would be called for construction to commence in the first quarter of 2014.

It will therefore be recommended (if not already being implemented), that TMR proceed with the design and construction of a Channelised Right Turn at the intersection of the Warrego Highway and the Jondaryan Mount Tyson Road with priority.

Anti-locking Braking Systems (ABS) and Electronic Stability Control Systems (ESC)

The Office of the State Coroner sought information from TMR concerning any consideration given on the viability of a mandated scheme for the use of ESC systems on new heavy transport vehicles, and/or the retrofitting of the system to current heavy vehicles.

The effectiveness of ESC systems has been the subject of considerable discussion within the industry and regulatory authorities for some years.

The issue was first raised before me at an inquest in 2007.[1] It would seem uncontroversial to conclude that ESC can significantly reduce the likelihood of being involved in loss of control crashes. ESC has largely been mandated for passenger vehicles and sports utility vehicles.

At an inquest in 2011, the New South Wales Deputy Coroner recommended the fitting of stability control to vehicles transporting dangerous goods. The New South Wales Environment Protection Authority (EPA) has recently made a determination that prohibits the transport of dangerous goods in New South Wales by heavy vehicle tank trailers (including semitrailers, B-double trailers and dog trailers) manufactured on or after 1 July 2014 that are not fitted with electronic stability control.

The EPA has also advised that from 1 January 2019, electronic stability control will be required on all heavy vehicle tank trailers that are transporting dangerous goods in New South Wales.

TMR advised that since the implementation of the *Heavy Vehicle National Law Act 2012,* responsibility for vehicle standards for heavy vehicles has been transferred to the National Heavy Vehicle Accreditation Scheme (NHVAS).

[1] Inquest into the death of Janet Louise Young delivered on 28/1/08

TMR noted the Australian Government's current policy *is for the requirement for ABS on heavy trailers to come into force on 1 July 2014 for new model trailers and 1 January 2015 for all new trailers, consistent with the requirement for heavy trucks and buses.*

Work will continue with industry in developing a code of practice so that operators can optimise the performance of different braking technologies when combining trucks and trailers together.

In line with the National Road Safety Strategy 2011 – 2020, plans will commence work on ESC this year. The new safety features on heavy vehicles (including ABS and ESC) will be mandated in a nationally consistent way by the Australian Government's Department of Infrastructure and Regional Development, in close consultation with the State transport agencies and the heavy vehicle manufacturing and operating industry. According to the timetable, ABS on heavy vehicles has been delivered in 2014, slightly ahead of schedule. Work on ESC on heavy vehicles begins in the latter half of 2014.

It is accepted that the mandating of these safety features on all heavy vehicles requires considerable consultation with Federal and State transport agencies and the manufacturing and transport industry. The difficulty will not be so much in relation to new model vehicles where it has largely been mandated. The difficulty will be the retrofitting to the many thousands of vehicles on Australian roads. Given there is clear policy support for its introduction and work in implementing a policy is currently on foot, I do not intend to make a specific recommendation. This is a significant issue which is best implemented and addressed by government and the manufacturing and transport operating industries.

Conclusions

When Mr Bennett and his wife saw the road train jack-knifing ahead of them, they were experiencing a nightmare no-one would want to face. Mr Bennett had no opportunity to take any satisfactory evasive action.

There were a number of factors identified by the FCU and TMR investigations, which contributed to this traumatic incident. It is difficult to fix a percentage of contribution to the various factors. I accept they all contributed in some part.

Certainly the intersection configuration combined with the slippery surface and wet road played a significant role. I do not find any of the other road users, particularly those turning right, played a role.

I am not at all convinced that Mr McGrath escapes total scrutiny. It is accepted he was driving at the speed limit for his vehicle. It is arguable in the circumstances of the wet road that a slower speed may have suited the circumstances.

Mr McGrath had never faced a jack-knife before. He had not been trained in such an emergency situation. He was unaware that a low weight load affects the braking characteristics of a road train. He was unaware of the technique of

driving to pulse the brakes to replicate an ABS system. It is accepted he may have had little time to contemplate those matters even if he was trained or aware of these factors. He may have made a mistake in braking as hard as he did. Some witnesses, including Mr Brooker, thought he had some room between the truck and the traffic ahead to take evasive action. I accept braking hard may have been the natural and inevitable reaction of most drivers.

I also find a significant factor was the dangerous condition of the brakes of each unit and in totality as a road train. Mr McLaren found that overall the brakes would have been partly operable but with reduced efficiency and an imbalance, which makes it quite unpredictable as to what would happen on the road when you needed to apply emergency braking.

It is not a coincidence that this fatal incident involved jack-knifing, which can only occur in braking conditions, and involved a road train unit that had seriously defective and reduced efficiency brakes. That such units were, and likely still are being driven on our roads is extraordinary and in my view is evidence of a lack of maintenance and servicing on the part of the various Loughlin Family entities that were responsible for such servicing. I am left with the impression, the Family group have not learned anything from this tragic event nor have they taken steps to examine, audit or improve the quality assurance of the servicing and maintenance of its trucks and trailers.

The appalling nature of the record keeping for the maintenance and servicing of these units is simply consistent with the largely haphazard approach of the Family group to quality assurance.

Findings required by s. 45

Identity of the deceased – Scott Anthony Bennett

How he died – Mr Bennett died from injuries caused when the motor vehicle he was driving was impacted by a jack-knifing road train which crossed into his path. He had no opportunity to evade the inevitable collision. The jack-knifing occurred as a result of a combination of factors including the defective condition of the road train braking system, driver decision to brake heavily in the face of an oncoming traffic build up largely due to the engineering of the roadway and intersection, and the wet road conditions combined with an area of roadway with a low wet skid resistance.

Place of death – Warrego Highway JONDARYAN QLD 4403

Date of death– 25 January 2012

Cause of death –

1a Hypovolaemic shock due to
1b haemothorax and pneumothorax due to
1c multiple rib fractures producing flail segment plus ruptured liver due to
1d motor vehicle accident.

2 Additional leg and arm fractures and torn diaphragm

Comments and recommendations

It is recommended (if not already being implemented), that the Department of Transport and Main Roads proceed with the design and construction of a Channelised Right Turn at the intersection of the Warrego Highway and the Jondaryan Mount Tyson Road with priority.

I intend to provide information gained from the investigation and inquest, particularly relating to the servicing and maintenance of the road train in question, to the Office of Fair and Safe Work in accordance with s. 48 of the *Coroners Act 2003.*

I close the inquest.

John Lock
Deputy State Coroner
Brisbane
5 June 2014