

Amanda Gearing
[REDACTED]
Kensington Heights, Toowoomba 4350
Phone [REDACTED]
Email [REDACTED]

Justice C Holmes
Queensland Floods Commission of Inquiry
PO Box 1738
Brisbane QLD 4001
Email: info@floodcommission.qld.gov.au

7 November 2011

Submission to the Queensland Floods Commission of Inquiry

Issues re Grantham quarry and flooding upstream and downstream

Introduction

I have researched the floods in Toowoomba and the Lockyer Valley during the course of a Master of Arts - Research program during 2011. I have recorded interviews with approximately 100 flood survivors. Information gathered indicates that operators of the quarry upstream of Grantham have changed the riverine landscape gradually since quarrying began in about the mid-1980s. As a sand and gravel quarry was developed on what was a low creek pocket, the sides of the quarry were built up around the western, northern and southern sides of the quarry excavation, to a level higher than the other side of the creek.

Residents living opposite the quarry and downstream of it, have become increasingly concerned about the gradual building of an earthen wall 380 metres long, several metres thick and 3 metres to 5.5 metres high, along the western edge of the quarry. They have written to the local council, approached the quarry manager and alerted local councillors in recent years to voice their concern that the extra height of the quarry wall would cause their farms to be flooded if a flood of large magnitude ever occurred.

Once the flooding occurred in January, these residents near the quarry did not make public their concerns because they were concerned insurance claims for their homes and farms could be adversely affected.

Residents' concerns

Once the residents living near the quarry received payouts on their insurance claims, they began to express their concerns about the effect of the quarry on the flow of flood water and also the violent nature of the onset of the flood in Grantham which claimed 12 peoples' lives. Their motivation is to try to ensure the quarry wall is not rebuilt in future because they believe it would pose an ongoing risk to themselves and to the town of Grantham.

Photos taken during and after the previous significant flood in 1996 illustrate that flood water overtopped the quarry and continued down the creek, rather than being diverted towards the Gatton-Helidon Road.



1996 flood – Lockyer Creek can be seen flowing from the creek into the quarry. The tops of cranes can be seen protruding from the water in the quarry.



After the 1996 flood – showing the height of the land on the western side of the quarry which allowed the floodwater to flow across the quarry.

When I became aware of the residents' observations of the flood and their concerns, I made some initial inquiries of the Mines Department and the Department of Resource Management. The Mines Department told me the quarry was under the jurisdiction of DERM.

I put the following questions to DERM:

From: Amanda Gearing [REDACTED]
Sent: Tuesday, 31 May 2011 1:03 PM
To: media
Subject: Attention: Megan Lutz
Importance: High
Good afternoon Megan

I am writing a news story for The Australian on the cause of the flooding in Grantham. I initially spoke with the Mines Department but they say the sand plant quarry at Grantham is 'not their quarry' - it is a DERM quarry.

Could you therefore ask your Department to answer the following questions please?

What authority is responsible for monitoring or undertaking enforcement of a functioning quarry to ensure it does not block or cause diversions to waterways? If a state government authority, could you give me a contact person and their phone number please?

Are quarries inspected at all, or if they are, on what interval, to ensure they are maintaining an operation which does not compromise the natural flow of water in creeks?

Has the quarry at Grantham ever been inspected or visited by DERM staff? If so, when?

If there are regular inspections of quarries, when was the quarry at Grantham beside/in Lockyer Creek inspected during the last five years?
Has DERM ever received complaints about the Grantham quarry building a high earthen bank around the quarrying operation? If so, what action, if any was taken?

With thanks

Amanda Gearing

DERM staff member Megan Lutz replied by email:

From: Lutz Megan [REDACTED]
Sent: Tuesday, 31 May 2011 1:16 PM
To: Amanda Gearing
Cc: media
Subject: RE: Attention: Megan Lutz
Hi Amanda,

Yes, I can confirm this is a DERM issue. I have someone gathering information for a response now. Can you please let me know what your deadline is?

Cheers,

Megan

Megan Lutz
Principal Media Officer
Media Services
Phone: [REDACTED] Fax: [REDACTED]
www.derm.qld.gov.au

I subsequently attended the quarry and observed heavy earthmoving equipment and dump trucks dismantling sections of the quarry wall which still remained on the northern side of the quarry after the flood.



Heavy equipment demolishing part of the remaining earthen wall on the northern side of the Grantham quarry.

Aerial photos were also taken which showed the ‘wall’ along the western side of the quarry demolished and the northern wall being demolished.



Aerial photo 2011 post-flood, looking east from the quarry and showing the remains of the northern wall around the quarry being demolished. Grantham town is in the top left of the photo.

Further DERM questions

When I had not had replies to my questions after more than a week from DERM, I sent another request:

From: Amanda Gearing [REDACTED]
Sent: Thursday, 9 June 2011 5:18 PM
To: Lutz Megan
Subject: RE: Attention: Megan Lutz
Importance: High

Hi Megan

When do you expect to have answers for me on the quarry's levee bank at Grantham?

I have a few more questions. . .

If DERM gave approval for the levee, could I have a copy?

If there was approval, was a hydrology study done before the approval was given?

Has the quarry been ordered to destroy the levee bank by DERM? We have photos of the heavy earthmovers and dump trucks carting the levee bank away last week.

With thanks

Amanda

Fluvial geomorphologist

I invited a locally-based fluvial geomorphologist, Dr Jerry Maroulis, to attend the quarry. His assessment from looking at the remains of the quarry wall close to the edges where the wall had collapsed during the flood was that the construction indicated the wall was definitely not a 'natural feature' of the landscape. He said a hydrology study would be needed to establish the impact, if any, of the quarry wall on the flood hydraulics on 10 January.

August 2011 - Interim Report of the Commission

Dr Jordan submitted to the Inquiry in evidence, as a hydrologist for Sinclair Knight Merz employed by Lockyer Valley Regional Council. His preliminary opinion at 7.3.3 of the Interim Report of the Floods Commission of Inquiry, was that 'the quarry and its features might have had some very local influence, causing a marginal increase in flood levels immediately upstream from Grantham, but was unlikely to have had a significant influence on the downstream flow of water into Grantham.'

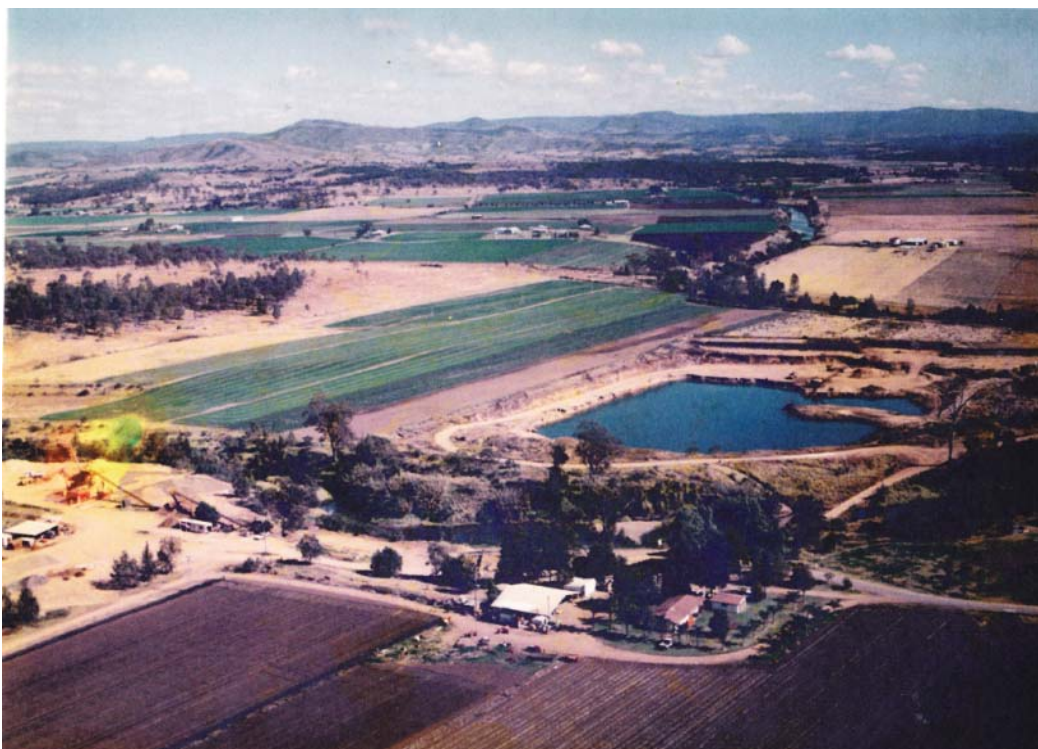
I phoned Dr Jordan and asked him if he had been aware when he wrote his finding, that there had been a substantial earthen wall on the upstream side of the quarry. He told me he had been told about a wall but did not have any details of its height. I asked him whether, if he had known the wall had been up to six metres high, this would have influenced his evidence to the Inquiry. He said it would have influenced his evidence to the Inquiry.

Further DERM inquiries

I again contacted DERM by phone.

DERM staff confirmed the quarry fell under their jurisdiction, that the quarry 'wall' was a 'natural feature' of the landscape and that the source of their information for it being a natural feature of the landscape was the owners of the quarry, Wagners. DERM told me that approval had already been given to the quarry to rebuild the 'wall' destroyed by the flood event on 10 January.

Following a request from *The Australian* reporter Tony Koch, DERM departmental personnel visited the quarry site and then met Tony and me outside the convenience store in Grantham. At that gathering DERM staff confirmed the quarry fell under their jurisdiction and that the quarry 'wall' was a 'natural feature' of the landscape. We then showed them an historical photo of the quarry area:



Grantham quarry and surrounding farmland taken in approximately 1985.

The DERM staff then immediately told us that the quarry was not under their jurisdiction – that they were only responsible for waterways ‘from the tree line on the high bank of the creek to the tree line on the opposite bank’ and the quarry walls were ‘outside the tree line’. They told us the matter of the quarry was therefore a responsibility of the Lockyer Valley Regional Council.

My colleague Tony Koch spoke to someone at the Queensland Floods Commission of Inquiry and the Commission sought further evidence. Dr Jordan was subsequently engaged by the Commission to conduct an independent hydrology study assessing the impact of quarrying operations on flash flooding in Grantham on 10 January 2011, including examining the ‘onset’ of the flood in Grantham.

Second hydrology study

This study used the same TUFLOW model Dr Jordan had developed when he had been working for the Lockyer Valley Regional Council. His second hydrological study reported on 16 September, and made different findings from his initial report. Hydraulic modelling compared how the flood would have behaved if the quarry had not been built with how the flood behaved including the existence of the quarry. His findings were that:

- A model of the flood event downstream of the quarry, which assumed the quarry had not been built, found that the amount of floodwater was so great that the area between Lockyer Creek and the railway line (including the houses on the southern side of the town of Grantham) would have been engulfed.
- The study also revealed that the effect of the quarry on the flooding downstream was to reduce the flood peak in Grantham township by four to ten centimetres. There was no

- However, upstream of the quarry, the modeling showed the 380-metre earthen wall along the western side of the quarry increased the height of the flood by a maximum of half a metre, for about two kilometres upstream. Here the water level rose three metres in half an hour and continued rising very slowly for another fifteen minutes before beginning to fall over the following two hours.

There was no mention in the report of the results of Dr Jordan's study into the *onset* of the flood in Grantham and he was not questioned about this aspect of his study when he presented his second study and gave evidence to the Inquiry.

Second phone call with Dr Jordan

After reading this report, I phoned SKM who arranged for me to interview Dr Jordan for my research. Dr Jordan was willing to be interviewed. I asked if he had been requested to study the onset of the flood in Grantham in the second study. He confirmed he had studied the onset of the flood in Grantham but said he did not include his findings about the onset in his written report to the Inquiry.

I then briefly described what witnesses in Grantham had seen, being a two metre high wave of floodwater moving very quickly down the Gatton-Helidon Road and engulfing the town. I asked if this observation was consistent with what his model had found about the onset. He said it was consistent.

This raises the possibility that the quarry wall (before it collapsed) may have contributed to the speed and violence of the *onset* of the flood flowing along the Gatton-Helidon Road to Grantham, constrained by the railway embankment, which resulted in the deaths of 12 people and the trapping of dozens of people in the fast-flowing water who survived only by fleeing into houses, onto roofs, floating in or on cars or clinging to fences or trees.

Possible conflicts

1. Lockyer Valley Regional Council mayor Steve Jones is a personal friend of the owners of Wagners Quarry.
2. Dr Phillip Jordan was retained by Lockyer Valley Regional Council for his initial hydrology study but then by the Commission, using the model developed for the Council, for the second study.

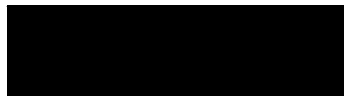
Questions for the Commission

1. Does the Lockyer Valley Regional Council or DERM in fact regulate the operations of the quarry?
2. What authority is responsible for monitoring or undertaking enforcement of the activities of quarry to ensure it does not compromise, block or cause diversions to the waterway, especially during flood events?

3. Has the quarry been inspected at all, or if it has, on what interval, to ensure it has maintained an operation which does not compromise the natural flow of water in the creek?
4. Has the quarry at Grantham ever been inspected or visited by DERM staff or LVRC staff before the January flood? If so, when?
5. Has DERM ever received complaints about the Grantham quarry building a high earthen bank around the quarrying operation? If so, what action if any was taken?
6. If DERM or LVRC gave approval for the levee bank, was a hydrology study done before the approval was given?
7. Given that the Commission asked Dr Jordan to study the onset of the flood in Grantham and that he did not report on the findings of this aspect of his study, will the Commission seek a written report and/or further evidence about this?
8. Given the consistency between witness information about the onset of flooding in Grantham and Dr Jordan's study of the *onset* of the flood, will the Commission seek more information about the possible role of the quarry wall in changing the way the flood impacted the people and buildings in the town of Grantham?
9. Given that Dr Jordan was retained initially by Lockyer Valley Regional Council to conduct his initial hydrology study and that Council now appears to be the authority responsible for the regulation of the quarry, and that the Council did not disclose to Dr Jordan the community concerns that had been expressed about the quarry wall, will the Commission seek a second independent, professional opinion on the effect of the quarry wall on the flood event?
10. Given the continuing community concern re the quarry wall being rebuilt, will the Commission make recommendations to ensure the quarry landscape is restored to being a 'low pocket' so that minor and moderate flooding flows will inundate the 'low pocket' and continue down the creek rather than the break out of the creek at the quarry, threatening adjacent houses and farms?

Thank you for your attention to these matters.

Yours sincerely

A solid black rectangular box used to redact the signature of Amanda Gearing.

Amanda Gearing

Master of Arts – Research (student)
QUT
Brisbane

Some issues raised in this submission are also addressed by a number of statements and other information provided to the Commission. The documents are provided below for information.

Sinclair Knight Merz

Cnr of Cordelia and Russell Street
South Brisbane QLD 4101 Australia
PO Box 3848
South Brisbane QLD 4101 Australia

Tel: [REDACTED]
Fax: +61 7 3026 7300
Web: www.globalskm.com



The Honorable Justice Catherine Holmes
Commissioner
Queensland Floods Commission of Inquiry
Level 30
400 George Street
Brisbane Qld 4000

23 December 2011

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QE06544

Dear Commissioner

Response to Submission to Commission of Inquiry by Ms Amanda Gearing

I refer to the Submission to the Queensland Floods Commission of Inquiry (the Commission) by Ms. Amanda Gearing, dated 7 November 2011.

Ms. Gearing's Submission contains a number of allegations pertaining to the flash flood that occurred in Grantham on 10 January 2011 and Wagners Quarry. The Submission contains a number of factual errors that I will correct in this letter. Ms Gearing's submission also contains a list of ten questions addressed to the Commission and I provide my views on the issues raised by the questions 7, 8 and 9.

Engagement by Lockyer Valley Regional Council and Potential Conflicts of Interest

Ms Gearing alleges at several places within her submission that I was personally retained to provide advice to Lockyer Valley Regional Council (LVRC) at the same time that I was working for the Commission. This statement is not correct.

Sinclair Knight Merz is currently engaged by LVRC to undertake a floodplain management study. This project commenced in March 2011 and is still in progress.

While it is true that SKM has been engaged to undertake the Lockyer Valley floodplain management study project, I personally have not had any substantive involvement. My only involvement has been to review the rainfall observation data used within the hydrological models for the study. This data was collected from weather radar and rain gauges. This role has been limited to reviewing the rainfall data that was produced. I undertook this purely technical role because of my specialist knowledge in derivation of quantitative estimates of rainfall depths from radar data.

I have had no involvement in the definition, building, calibration or validation of the hydrological or hydraulic models used for the LVRC study, or any other tasks involved in this



project. I have not had any discussions or correspondence with any councillors or staff of the LVRC.

Under the conditions of the contract between SKM and LVRC, the TUFLOW model, developed and calibrated by other staff members at SKM for the 10 January 2011 event, is the intellectual property of LVRC. At the request of the Commission, LVRC authorised the release of the calibrated TUFLOW model to the Commission for me to use in simulations carried out by me for my reports prepared for the Commission.

I checked the performance of the TUFLOW model and verified it against surveyed flood heights, photographs and video footage to verify it was suitable for use as the base case scenario. I then modified the model to run two additional scenarios (pre-quarry terrain and post-quarry terrain without embankment collapse) and reported my results to the Commission in my second report dated 16 September 2011. In undertaking all of the activities stated in this paragraph I was engaged directly by the Commission and I had no communication about the modelling or its results with LVRC councillors or staff.

I do not consider that I had any conflict of interest, and I did not feel conflicted, in providing advice to the Commission in regard to matters to do with Wagners Quarry.

Issues Raised about the Timing and “Onset” of Flooding in Grantham during the 10 January 2011 Event

My second report dated 16 September 2011 to the Commission provides graphs and discussion of the full hydrograph of the flood that occurred in Grantham on 10 January 2011. My report includes discussion of the onset of flooding in Grantham, although it uses the terminology “rising limb” rather than “onset”. In particular, Figure 4-12 shows the full duration of the flood hydrograph of water levels at six locations through the study area, indicative of the timing of the flood hydrograph, including its “onset” through the town of Grantham. I was questioned on the evidence presented in Figure 4-12 of my second report during a public hearing of the Commission on 22 September 2011.

I disagree with several of the allegations Ms Gearing has made about our interview in her submission. She claims that I stated that, although I studied the onset of flooding in Grantham, I did not include those findings in my written report. I disagree with Ms Gearing’s assertion in this regard. Although I did not use the terminology “onset” in my second report, I did include figures showing the full hydrograph of flooding and discussed the rate of rise of the flood hydrograph through the town of Grantham under three different scenarios.



Ms Gearing alleges in her submission that I told her that I agreed with residents' reports of a "two metre high wave of floodwater moving very quickly down the Gatton-Helidon Road and engulfing the town". This implies that the flood water moved through the town as a two metre high wave, with an almost vertical face and this implication is not consistent with my report or my recollection of what I told Ms Gearing in our interview. The results of the hydraulic model, as expressed in my second report to the Commission are that the maximum depth of water reached two metres or more at several locations through Grantham on 10 January, as shown in Figure 4-3 of my second report. The model results, shown in Figure 4-12, are during the fastest part of the rising limb of the hydrograph that the water rose by 1 metre in 10 minutes at several locations across Grantham. The video footage that I have seen supplied by locals and on television documentaries taken during the flood confirms the average rate of rise that was identified by the TUFLOW model for Grantham (approximately 10 cm per minute). The TUFLOW models are correctly and consistently representing the flood flows that occurred through Grantham on 10 January 2011 and that the hydraulic model results are consistent with peak water levels surveyed after the flood, television and amateur video footage captured during the flood. I therefore believe that the impact of the quarry is correctly represented within the TUFLOW model simulations.

Furthermore, I included an additional scenario in my report that considers the impact on flooding that would have occurred in the hypothetical situation that the embankment around Wagners Quarry did not breach during the 10 January 2011 flood event. The results from this scenario, as shown in Figure 4-12 of my second report, demonstrate that even if the quarry wall had not collapsed (or if it actually collapsed after the peak of the flood had passed) that the hydrographs of flooding in Grantham would not have been materially different from the hydrographs of flooding that occurred in Grantham, which included collapse of the embankment around Wagners Quarry on the rising limb of the flood. Contrary to the assertion in Ms Gearing's submission, there is no possibility that the quarry wall before its collapse contributed to make any substantial change to the rising limb of the flood, or onset of the flood to use Ms Gearing's terminology, in the town of Grantham.

Relevance of Observations of the May 1996 Flood Event to the January 2011 Flood Event

Ms Gearing's submission refers to the hydraulics of the May 1996 flood event in Lockyer Creek, particularly in the vicinity of Wagners Quarry and Grantham. The recorded peak flow at the Helidon streamflow gauge in May 1996 was 645 m³/s, compared with an estimated peak flow at Helidon on 10 January 2011 of more than 4000 m³/s. The peak flow in the January 2011 event was therefore at least a factor of six times larger than the peak flow during the May 1996. It is not surprising therefore that flows during the May 1996 event remained within the



watercourse of Lockyer Creek in the vicinity of Wagners Quarry, whilst the January 2011 event broke onto the floodplain during the January 2011 event. The results of my modelling, as presented in my second report, confirm that even if the pre-quarry terrain had been in place at the time of the 10 January 2011 flood event, flood waters would have broken out across the left bank of Lockyer Creek at a location opposite to where Wagners Quarry is now located and then flowed into Grantham.

Photographs of Wagners Undertaking “Demolition” of Embankments around Wagners Quarry after the January 2011 Flood

Ms Gearing’s submission contains two photos showing earth moving equipment operating on the site of Wagners Quarry and the submission alleges that the earth moving equipment was undertaking “demolition” of embankments around the quarry site.

I want to emphasise that the modelling that I undertook for my second report to the Commission was informed by LIDAR surveys undertaken in August 2010 and on 19 January 2011. The terrain that was used in my modelling would therefore have closely as possible represented the terrain at the time that the January 2011 flood occurred and was influenced in no way by any earthmoving activities that may have occurred on the Wagners Quarry site after the flood event.

My First Report and Opinion Expressed in the Commission’s Interim Report

In her submission, Ms Gearing states that during a telephone conversation I had with her I told her that:

- I had been aware when I wrote my first report that there had been a substantial earthen wall on the upstream side of the quarry but that I did not have any details of its height; and
- if I had known the wall had been up to six metres high, that would have influenced my evidence to the Commission.

My first report to the Commission dated 12 April 2011 includes the statement that, “Restrictions on the timeframe available to prepare this report, less than three weeks, placed limitations on the author’s ability to review, in detail, all material that might have been available and/or desirable to report on the flash flood events. The limitation on the timeframe also meant that no hydrological or hydraulic modelling was performed by the author as part of this engagement to inform preparation of the report.”

In light of the above statement, I agree that had I been aware of more details about the embankments around Wagners Quarry prior to preparation of my first report there was potential for me to have come to a different conclusion about the impact that it had on flooding in Grantham. However, the modelling that I undertook for my second report to the



Commission enabled me to make definitive and adequately supported statements about the impact of Wagners Quarry.

Despite the limitations stated in my first report as quoted above, the subsequent findings of my second report, which were established from hydraulic modelling, remain consistent with the findings of my first report. Accordingly, as matters transpired, the fact that the substantial earthen wall on the upstream side of the quarry was up to six metres high did not ultimately impact on my evidence to the Commission.

Views on Issues Raised in Questions Posed by Ms Gearing to the Queensland Floods Commission of Inquiry

The first six questions raised by Ms Gearing in her submission relate to regulation of levee banks and I consider these issues to be outside of my area of expertise. I do hold views on questions 7, 8 and 9 of Ms Gearing's submission that the Commissioner may wish to consider.

Question 7 alleges that my second report to the Commission did not address the "onset" of flooding in Grantham. As discussed above, my report did address the entire hydrograph of the flood event in Grantham, including the onset of flooding. I do not therefore consider it necessary for any additional evidence to be provided about the onset of flooding in Grantham.

As discussed above, my second report to the Commission of Inquiry already provides a comprehensive assessment of the impact that Wagners Quarry had on flooding in Grantham. To summarise my report, the key findings were that, "The quarry mitigated the impact of flooding through the town area of Grantham, with peak flood levels reduced by between 0.04 m and 0.1 m;" and that, "Water levels in the town of Grantham were delayed by the presence of the quarry ... The rising limb of water level hydrographs at locations in the town of Grantham was delayed by 5 minutes due to the quarry." My second report to the Commission contains several figures that demonstrate the role that the quarry played in modifying the flood through the town of Grantham.

In response to Question 8 of Ms Gearing's submission, I therefore do not consider it necessary for any further evidence to be provided about the impact of Wagners Quarry on flooding in Grantham on 10 January 2011.

Question 9 of Ms Gearing's submission alleges that I was engaged directly by LVRC and that it failed to disclose to me previous concerns that had been expressed by local residents about the Wagners Quarry. As I have stated above, it is untrue that I was engaged by LVRC. It is not surprising that I therefore had no discussions or correspondence with councillors or staff from LVRC at any stage during the preparation of either my first or second reports to the



Commission. Residents' concerns had been aired in public forums before I commenced work on my second report to the Commission, so I was aware of their concerns during the process of preparing my second report.

In response to Ms Gearing's ninth question, I would welcome an independent review of the evidence that I have presented to the Commission by an appropriately experienced hydrologist, if the Commission considers that this is warranted.

Yours sincerely



Dr. Phillip Jordan

B.E.Civil (Hons.), Ph.D., C.P.Eng., M.I.E.Aust., R.P.E.Q.

Senior Hydrologist

E-mail:



QUEENSLAND FLOODS COMMISSION OF INQUIRY
STATEMENT OF IAN FLINT

I, **IAN FLINT**, Chief Executive Officer of Lockyer Valley Regional Council of care of Lockyer Valley Regional Council Chambers, 26 Railway Terrace, Gatton, Queensland 4343, make the following statement under oath as required by the Commissioner of Inquiry [Commission Ref 1787087 – 23/11/11].

1. This statement is prepared in response to a submission received by the Queensland Floods Commission of Inquiry which was forwarded to me under cover of the Commission's letter dated 23 November 2011 reference 1787087. The copy of the submission which I have been provided has had the date upon which it was prepared redacted together with the name and address of the person who prepared the submission. Further, throughout the text of the statement the names of some persons who are referred to have been redacted together with a number of paragraphs in the body of the submission.
2. In an email from Jane Moynihan to Terry Law of King & Company Solicitors dated 30 November 2011 the Commission advised that the specific allegations in the submission which require a response are contained in questions 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 16, 20, 21, 23 and 24 and this is the focus of my statement insofar as the questions relate to Lockyer Valley Regional Council ("Council") and Council staff that were members of the Local Disaster Management Group ("LDMG"). The Chair of the LDMG and Mayor of Council, Councillor Steve Jones, has provided a separate statement providing his account of 10 January 2011.
3. It is important to note that the LDMG is made up of a number of different organisations, and neither Council nor Cr Jones is able to speak for those other organisations.
4. I am ordinarily the Local Disaster Controller ("LDC") and a member of the LDMG. However, prior to the events of 10 January 2011, I was on leave over the Christmas period. In my absence, the Deputy LDC, Gerry Franzmann, was the Acting LDC. 10 January 2011 was my first day back from leave. However, Mr Franzmann maintained the role of Acting LDC in order to maintain some continuity.
5. In making this statement, I have not had the opportunity to contact all the relevant persons that were involved in the LDMG; in particular, Mr Franzmann, who is no longer an employee of Council. I have also not had the opportunity to go back and review all the necessary documents relating to that day, all of which have been previously provided to the Commission to the best of knowledge.

Local Disaster Management Group stand-down and reactivation on 10 January 2011

6. Areas of the Lockyer Valley region were flood affected from 26 December 2010. As a result, the LDMG had been on call since that time and was formally activated on 27 December 2010.
7. Further localised flooding in the region resulted in the LDMG being reactivated on Thursday, 6 January 2011, and again over the entire weekend from 7 January to 9 January.
8. An assessment was made at about 3:30am on 10 January and it was believed that the risk of further significant flooding had passed. Therefore, the LDMG members were stood down to give them some rest. However, Council staff were still monitoring the situation.
9. By daylight in the early hours of 10 January, the flooding in Grantham had subsided and there was nothing that morning to suggest there would be a major flooding event that day. It was not until the afternoon when there were some signs of adverse weather that the LDMG was reactivated at about 12:15pm.
10. Since that time, I have been made aware of auxiliary brigades and volunteer rural fire brigades being possibly called in on the morning of 10 January in the South East region. I have no knowledge of the circumstances in which they might have been called in. From Council's perspective, floods in the Lockyer Valley region had largely subsided and there was no indication that morning of a significant event occurring that day.

Afternoon of 10 January 2011

11. Grantham is an area known to flood, and while Council had expected flooding to affect the area, Council did not ever expect the flooding to be catastrophic.
12. The matters considered to be the usual warning processes are:
 - a. Door knocking;
 - b. Use of a portable audio system on SES vehicles; and
 - c. Media releases, such as:-
 - i. radio interviews;
 - ii. Council website updates; and
 - iii. text messages.
13. Such processes were carried out from about 27 December 2010 up to and beyond 10 January 2011. However, the nature of the event in Grantham resulted in some of

these processes being less effective than they otherwise would be for a normal flood event.

14. Council is not aware of any discussion or decision not to warn the people of Grantham for fear that residents may unwittingly place themselves and/or others at risk by trying to escape. Rather, a decision was made by a LDMG member to have the SES door knock residents of Grantham at about 2:30pm. However, the SES crew was not able to get into Grantham due to the rising water, meaning the door knock could not be carried out. The same SES crew was subsequently instructed to warn residents in the low lying areas of Gatton.
15. In relation to the "forced evacuations" referred to in the LDMG log, I have spoken to Jamie Deacon, who is a member of the Queensland Police Service and the Executive Officer in the District Disaster Management Group. I am advised by Mr Deacon and verily believe that:
 - a. At approximately 10am on 10 January, Mr Deacon spoke to a person named Mitchell (who I understand to be Mitchell Bichel, a member of Council's engineering team) at the Local Disaster Coordination Centre ("LDCC") and was advised that the flooding in Grantham had subsided but Forest Hill was still being monitored due to the water still rising in that area;
 - b. Mr Deacon then went into a briefing at the District Disaster Coordination Centre between 10am and 12pm;
 - c. After the briefing, he rang the LDCC at approximately 12:38pm and spoke with Mr Franzmann to check if there had been any change to the Forest Hill situation, including whether forced evacuations were needed; and
 - d. Mr Deacon believes that the reference to "Forced evacuations??" in the LDMG log is likely to be a reference to his question to Mr Franzmann about Forest Hill.
16. The Forest Hill situation was continuously monitored, which eventually lead to the forced evacuations the next day.
17. While there are reports of phone calls and warnings given to the different organisations that make up the LDMG, the patchy nature of the reports and the large number of incidents Council was attempting to respond to meant that it was difficult for Council to properly ascertain the level of risk and to provide an adequate warning. The Commission has already made a finding to this effect based on the evidence that is before it.
18. In relation to an apparent picture message seen on the phone of a Council employee, Justin Fisher, I am advised by Mr Fisher and verily believe that:
 - a. Mr Fisher does not recall receiving a picture message of the kind described by Gary Dorr on his mobile phone on 10 January 2011;

- b. Mr Fisher's mobile phone was not, and is still not, set up so as to enable him to receive picture messages;
 - c. Mr Fisher is not aware of any local residents in the area that would have had access his mobile phone number to enable them to send him such a picture; and
 - d. Any photos taken by Mr Fisher on his mobile phone are likely to have been of damage to Council assets a few days after 10 January 2011 (as part of his role within Council).
19. Council disagrees that there was a lack of even a basic level of response by authorities. Evidence that has already been placed before the Commission shows that on 10 January:
- a. There were numerous rescues were carried out by rescue helicopters, followed by transportation four wheel drive to the evacuation centre at Helidon;
 - b. the Queensland Fire and Rescue Service transported rescued persons to the Murphy's Creek Hotel and searched for other people;
 - c. there was the establishment of a Police forward command presence to ensure effective coordination of the Queensland Police Service resources, collaboration with external agencies and to complement the disaster management actions being undertaken by the Toowoomba DDC with the Toowoomba and Lockyer Valley LDMGs;
 - d. radio interviews, website updates and text messages were used to inform the public of significant events.

Evening of 10 January 2011

20. After the major flood event had occurred, the information available to Council indicated that access into Grantham from Gatton was cut off due to flood waters.
21. It was not until Cr Jones had returned to Gatton at approximately 8:00pm via the Warrego Highway that Council first realised that access to Gatton could possibly be obtained via the Warrego Highway again.
22. Council had heard that there may be people still trapped in houses. However, due to the water level, conventional means of accessing properties were not considered possible. Therefore, a decision was made to try rescue people with front loaders, which could access properties and residents through the water due to their height and reach.
23. A decision was also made to send Cr Jones to carry out the rescues due to his ability to drive a truck and there not being anyone else with a relevant licence or sufficient experience. Cr Jones also had the local knowledge of the location of various gullies and drains which were under water creating an additional hazard.

24. Mr Franzmann and I remained at Council to coordinate the LDCC, while Deputy Mayor Graham Moon went with Cr Jones.
25. Cr Jones and Cr Moon left for Grantham in a truck at about 9:00pm but were unable to get there immediately. I understand they had to turn around and enter Grantham from the west via the Warrego Highway due to the safety concerns at the Lions Park bridge. However, rescues were ultimately able to be carried out with success.
26. In the meantime, use of Grantham State School as an evacuation centre was set up by a local police officer, Sergeant Rodney Minns, and his wife, who was the school principal. Council understands from the statement of Sergeant Minns provided to the Commission that, when asked about urgent medical evacuations, he advised PSRT officers that there was nothing that could not wait until the morning. Additionally, Council officers attending the school also offered to take evacuees to Helidon but it is understood they made a decision to stay.

Sworn by **Ian Flint** at BRISBANE in the State of Queensland this 2ND day of December 2011 in the presence of:

Deponent

A Justice of the Peace SOLINATOR

QUEENSLAND FLOODS COMMISSION OF INQUIRY
STATEMENT OF STEPHEN JOHN JONES

I, **STEPHEN JOHN JONES**, Mayor of Lockyer Valley Regional Council, care of Lockyer Valley Regional Council Chambers, 26 Railway Terrace, Gatton, Queensland, make the following statement under oath as required by the Commissioner of Inquiry [Commission Ref 1787082 – 23/11/11].

1. This statement is prepared in response to a submission received by the Queensland Floods Commission of Inquiry which was forwarded to me under cover of the Commission's letter dated 23 November 2011 reference 1787082. The copy of the submission which I have been provided has had the date upon which it was prepared redacted together with the name and address of the person who prepared the submission. Further, throughout the text of the statement the names of some persons who are referred to have been redacted together with a number of paragraphs in the body of the submission.
2. In an email from Jane Moynihan to Terry Law of King & Company Solicitors dated 30 November 2011, the Commission advised that the specific allegations in the submission which require a response are contained in questions 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 16, 20, 21, 23 and 24 and this is the focus of this statement.

My movements on 9 and 10 January 2011

3. To address the questions raised in the submission, I thought it would be of assistance to the Commission for me to provide a timeline of my movements on the evening of 9 January 2011 and on 10 January 2011.
4. From late afternoon on Sunday, 9 January 2011 I recall that there was heavy rain falling at Withcott and in other parts of the Lockyer Valley. I can recall that various Council staff were going out into the field and reporting any flooding problems. I myself did some investigating around Withcott in the early evening and reported what I saw back to Council.
5. Later that evening I recall that concerns were raised about the possibility of flooding in Grantham. Flooding had been occurring on and off in Grantham since Boxing Day. I remember Gerry Franzmann calling and telling me of the possibility of evacuations being required in Grantham that night and a need for sandbags.
6. We had filled the trucks with sandbags in the week prior and the trucks were ready to go.

7. I recall being advised by Stuart Damrow of the Rural Fire Brigade that the SES was unable to get anyone to drive the sandbags into Grantham and he asked whether anyone at Council could deliver the sandbags.
8. At approximately 10:00 pm, I took a Council truck from Gatton and drove out to Grantham with Jason Cubit, Council's media officer, to deliver the sandbags.
9. When we got to Grantham the water was already up. However, the waters were not very fast flowing or particularly destructive. We got sandbags to the first few houses which were safe. I recall that there were a number of rural fire brigade trucks driving around and I told one of them, but I can't recall who, not to drive in the flood waters as they didn't have as much weight on as us.
10. I can't remember who was in the truck but Rural Fire Brigade people were travelling behind me in their truck. I recall that Jason and I decided that the waters were getting too deep and that sandbagging would now be useless. We decided to pull out and drive to the east side of Grantham. We started to reverse our truck and then I saw the Rural Fire Brigade truck start to float off in the water and become stuck in the flood waters.
11. As a result of this, I stayed around on the eastern side of Grantham out of the flood waters to await the arrival of swift water rescue people and to make sure that everyone got out alright. I recall that the swift water rescue people came out sometime in the early hours of the morning on Monday, 10 January 2011 and that the rescue was completed sometime around then.
12. I stayed in Grantham until daylight was approaching and I recall the water had well and truly subsided and it looked like the possibility of further flooding had passed. I then decided to head back into Gatton to ascertain what had been occurring throughout other parts of the Lockyer Valley Regional Council area overnight. By the time I took the truck back to the depot I didn't get into the office until around 7:00 am.
13. I recall that I stayed at Council chambers until approximately mid-morning. At this time, a number of staff at the Council who had been there all night decided that as the flooding in the region had largely subsided and any risk had passed, they would go home to have a shower and change their clothes, pick-up some fresh clothes and toiletries etcetera (in case we needed to pull an all-nighter again that night) and then come back to Council.
14. I decided that I also needed a shower and a fresh change of clothes so I decided that I would head back to my home in Withcott. Shortly before I left the Council chambers I recall that I got a phone call from Ray Cullen, my son Brandon's boss. My son was

working with Ray at Postman's Ridge as an apprentice diesel mechanic. Ray told me that it was raining quite heavily at Postman's Ridge and given the flooding that had been occurring over the last few days, he was concerned that his staff might not be able to get home. He told me that he had decided to send everyone home and he asked if I could collect Brandon.

15. I told Ray that I was just about to leave Council to go home for a shower and that I would pick Brandon up on the way. I then left Gatton in my Nissan Navara ute and headed to Postman's Ridge. I went through Grantham across to Helidon, turned right at the Helidon Spa and then followed Postman's Ridge Road to get Brandon from Postman's Ridge.

16. As I left Gatton I cannot recall anything out of the ordinary so far as the weather was concerned. When I drove through Grantham and Helidon I don't recall there being any heavy rain; only light rain. As I got closer to Postman's Ridge, I noticed that it was raining fairly heavy. I recall that when I drove over the bridge at Postman's Ridge the water was up approximately two feet beneath the bridge. However, this was nothing out of the ordinary for when it was raining heavily. I picked Brandon up and headed out to the Warrego Highway and began driving towards Withcott. I had the intention of taking Brandon home, having a quick shower and change and then heading back to the Council office in Gatton.

17. As we got out onto the Warrego Highway again, the rain was unbelievable and like nothing I had ever seen before. It was like someone was pouring a 44-gallon drum of water over the windscreen. You couldn't really see anything. The next thing I realised was that there was a Mack truck driving beside me and the water on the road was up over the wheels of the prime mover.

18. I knew that I had to get off the road and decided to turn off the Warrego Highway at Withcott and into Biggs Road. I drove down Biggs Road and past a bend and then proceeded to drive through a gully that crossed the road. As we drove into the gully we were hit by a wave of water that seemed to come from nowhere. I cannot recall the exact time that I was washed off the road but I think it was sometime between 1:30 pm and 2:00 pm. The first thing I did was put down the electric windows so my son and I could escape. The engine in the vehicle was flooded and cut out and the vehicle began floating in the flood waters. I noticed that there was a chain in the floor of the passenger side of the vehicle and I said to my son that we should get out and try and chain the ute to a tree to stop it from floating away. We got out of the car but didn't end up needing to chain it up as the water started to go down.

19. The next thing I knew this guy in a Nissan Patrol turned up. He was able to get a rope onto the ute and pulled it clear of the floodwaters up near the Withcott Primary School.

20. I then told my son Brandon that he should walk home and tell his mother what had happened.
21. Pretty much straight after, I was pulled from the flood waters on Biggs Road. I then decided to head back into the Withcott town centre to see what was happening. I walked back into town and I remember there was water everywhere. I stayed up on the ridges to avoid having to walk in the water. When I got into Withcott I remember the water being about two foot deep around the Withcott Hotel.
22. When I got into Withcott itself it was a scene of utter confusion. There was stuff everywhere, the service station pumps were washed out, nearly every building was damaged, there were cars floating in the shopping centre car park. The Warrego Highway up to Toowoomba was cut due to the damage sustained by the water that came off the Range and there were hundreds of motorists stranded in Withcott with nowhere to go. I remember that initially the only dry place in town seemed to be the pub as the water had not gotten over the top step of the pub. We then started directing stranded motorists towards the pub.
23. I have reviewed my mobile telephone records for that day and I see that around the time I was washed off the road I put calls through to Gerry Franzmann, Council's LDC, at 1:36 pm, 1:45 pm, 2:02 pm and 2:17 pm. Given the time that has elapsed, I cannot recall the exact content of these calls. However, I have reviewed the LDMG log (which has previously been provided to the Commission) and can see the following:-
- a. At 1:35 pm a note is made that there was heavy rain at Withcott, that I would be in the office in 40 mins and that all problems were insignificant;
 - b. At 2:00 pm a note is made that I was at the Withcott School as I had gotten stuck in the middle of Biggs Road;
 - c. At 2:20 pm a note is made that I have become aware of cars floating into the newsagents from Freedom Fuels, that on Postmans Ridge Road there were reports of houses being washed away (however there is a question mark beside this) and that there were huge landslips behind the reservoir at Withcott.
24. Although it is not recorded in the LDMG log, I recall that during one of these telephone conversations I asked Gerry Franzmann to see whether someone from Council could come out to me in a truck to pick me up and take me back into Gatton so I could help at the LDCC.
25. I remember that my mobile phone was very low on charge when I was at Withcott and this caused problems for me making and receiving telephone calls. I had my car

charger with me. However, the ute was not going. I also remember having to keep going backwards and forward to the Withcott School which still had power and plugging the phone into the power point in the Withcott school toilet block to get some charge to make phone calls.

26. I distinctly remember making a call to Faith Darlington telling her that there had been a lot of rain and water at Withcott and that they could expect some more flooding in Grantham. When I made the call I remember thinking it would be flooding along the lines of what had occurred the previous night. I remember Faith telling me that everything there was okay and that they had already put the welding equipment away. I have reviewed my mobile phone records and cannot see a call to her number but I am positive I made one. The only thing I can think of was that I made the call on someone else's phone when mine was flat. One of the reasons I rang Faith is that I know her number from memory so I would not have needed to access the directory in my mobile to ring her.
27. I recall that when I was in Withcott I was constantly having discussions with people about the whereabouts of residents and trying to ascertain whether or not people were missing in town, as water had entered some homes. On at least two or three occasions I remember going into the pub to hold an information session to announce to the people there what information I had available.
28. Councillor Janice Holstein who also lives at Withcott was assisting people during the afternoon and later on in the afternoon I remember a female police officer arrived. The locals were also very good at helping people.
29. I also recall that during this time I rang Councillor Peter Friend, who lives in Grantham, to tell him what had happened at Withcott and to warn him that they could expect further flooding in Grantham. I can see from my mobile phone records that I made a call to him at 3:18 pm. I remember Peter saying words to the effect of "You're too late". He told me that water had already hit Grantham and that he was sitting on his roof waiting to be rescued.
30. I cannot recall exactly when, but at some point in the afternoon it was decided to use the Withcott School as the congregation point for the stranded motorists. From the LDMG log I can see that at 4.25 pm a note is made about Withcott School being a congregation point. Some locals had set up the school with tea and coffee making facilities and began looking after the people who came up. We decided to send them to the school as it was on a hill and we knew the people would be safe.
31. I recall having a telephone conversation with Marty Warburton at Grantham. I remember him telling me that he was stuck on the roof of his service station in

Grantham. I can see from my mobile phone records that I had a telephone call with him at 5:21 pm.

32. Also throughout the time I was at Withcott when I was able to, I was having telephone calls with Gerry Franzmann, Council's CEO, Ian Flint, various Councillors at Council and other Council staff to pass on and receive as much information as I could.
33. I remember that Councillor Holstein and I were at Withcott until it was nearly dark. Given that it was January this would have been around 7:00 pm. I remember that we saw a police officer in town in a Hilux ute. I went up to the police officer and told him who we were and said that we really needed to get back into Gatton. I remember the police officer being reluctant to drive us as he didn't know if the road was passable that way.
34. I remember insisting that he drive us and telling him to go as fast as he could. I was not sure exactly what was going on between Withcott and Gatton and I was concerned that we could get hit by more water. It wasn't until we drove over the Helidon Bridge and I saw the damage and debris that I realised how high the water had been and that the situation downstream was much worse than what had happened in Withcott.
35. We wanted to get into Gatton as quickly as we could so we stayed on the Warrego Highway and did not get off until we got to the Gatton exit. We did not go into Grantham, as I knew that as Grantham was subject to flooding, that way would be impassable. At that stage my main priority was getting back to the Council chambers and the LDCC.
36. I cannot recall the exact time that I got back to Gatton but it would have been sometime around 8:00 pm. I am aware that there have been media reports suggesting that the police officer and I were able to race back into Gatton in the afternoon and beat the water before it hit Grantham. Those reports are not correct as we did not leave Withcott until it was dark.
37. As I got into the police vehicle, I remember being interviewed by a fellow from Channel 9 named Peter Collins. If the time I left Withcott needs to be verified, I am confident that Channel 9 will be able to do this with its footage of the interview.
38. On the way into Gatton, I was on the phone with Gerry Franzmann discussing the best way to rescue people now that it was dark. We thought it was unlikely that helicopters would be able to keep rescuing people in the dark.

39. From the information that had been received by the LDCC we knew that it was bad and that there were likely to be people who needed rescuing. At that point in time we assessed that our highest priority was to do what we could do to save lives. I cannot remember how many staff members we had available to us at that time but I do remember that a number of people who were on call were unable to get into Gatton as they were stranded by flood waters. I remember we discussed using front-end loaders to evacuate people from Grantham. We knew that Council had two front-end loaders and these had been used previously to evacuate people from floods. We also had access to another loader from the Scottbar quarry.
40. By the time I got back to the office I know that one loader had been sent out and two others followed later.
41. It wasn't until Councillor Holstein and I arrived that the people at the LDCC realised that the Warrego Highway between Withcott and Gatton was passable by car.
42. I passed on to the LDCC what we had seen on the journey and we began discussing what information the LDCC knew. The information we possessed was sketchy as communications were bad and we needed a better picture.
43. We had then ascertained that the process with the loaders was taking too long as the distance from the flooded houses through the flood water out to safety on the western side was quite a long way and the return trip was taking a long time due to the loaders not being able to drive very fast.
44. We then decided at the LDCC that a truck should be sent out to collect the people off the loaders and then once the back of the truck was full we could ferry them to safety. We also got Jason Cubit from Council ready with a Hyundai minibus on the western side of Grantham to take people back to the Helidon Hall as this was the easiest spot to get to at that stage.
45. A discussion was held about who should drive the truck as there weren't many people who could do it. It was decided that I was the best person to drive it as I had the greatest amount of local knowledge, I was confident that I could handle the flooded conditions and I knew where the roads were and where the creeks and gullies were that I should avoid. It was also decided that Deputy Mayor Graham Moon should go with me.
46. Gerry Franzmann and Council's CEO, Ian Flint, remained at Council to coordinate the LDCC.
47. Councillor Moon and I were able to drive the truck through the flood waters and into Grantham. I cannot recall exactly when we left Gatton but it would have been some

time around 9:00 pm. We went out on the Gatton Helidon road. I couldn't get into Grantham that way as we were not sure the bridge at Lions Park was safe. So we then went out on the Gatton by-pass and came into Grantham from the western side. We used the truck as a platform for the loaders to unload the people onto and we then ferried the people to safety. We stayed out there all night doing whatever jobs were necessary and we were able to get dozens of people out by using the loaders and trucks in this way. I came back into the office at about 7:00 am on 11 January 2011.

48. I couldn't get home as I wasn't sure of the damage to the roads so I stayed in the office and I assisted with gathering and passing on information and doing whatever I could. I had my first sleep, since I woke on Sunday morning, on the office floor at about 3 or 4 am on the morning of Wednesday, 12 January 2011.


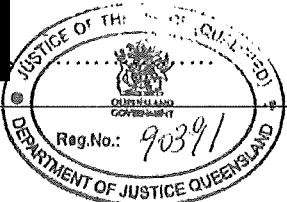

My participation in Exercise Orko

49. I confirm that I did not formally participate in Exercise Orko. I previously advised the Commission of this when I participated in an interview with Ms Kate Juhasz and Mr Mark Ainsworth on 4 April 2011 (Please refer to the transcript of interview at page 8, lines 15 – 18).

50. I am aware that EMQ has stated publicly that I did participate in this exercise but this is not correct.

51. Parts of the exercise occurred at Council's Gatton office and I do recall that I dropped in briefly once or twice. However, I did not participate in the exercise. Once the exercise was completed I received a briefing from the Council officers who did attend.

Sworn by **STEPHEN JOHN JONES** at WITHCOTT in the State of Queensland this SECOND day of December 2011 in the presence of:

 Deponent		 Justice of the Peace <u>JANICE MARIE HOLSTEIN</u>
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