

Appendix D- About the Mt Coot-tha Local Residents Work Done (2010-2018).

The Local Residents (MCLR) (LR) provide the summary of the 2010-2018 MCQ policeman work which they have been forced to perform in the past 9 years.

This follows and does not detract from the thousands of hours of MCLR work done by the before 2010.

A. About the Mt Coot-tha Local Residents.

1. The MCLR are the families who reside in the [80 private homes who live in the Mt Coot-tha urban area](#), bound to the north by Birdwood Tce and Richer St.
 - a. In c 2000, the MCLR in this area previously created an action group and at some later date John Higgins (JH) became their second chairman.
 - b. In 2010 JH appointed engineer and MCLR Philip Best to be their engineer and later their secretary, for the purpose of investigating what the residents already knew:
 - That the blast vibration effects on the homes were many times stronger than what the Brisbane City Council (BCC) Mt Coot-tha Quarry (MCQ) was reporting to DES.
2. In 2017, after devoting himself to the Quarry Activities for more than a decade, JH died unexpectedly and the MCLR asked [Philip Best](#) (PB) to continue as the new residents group chairman.
 - a. Since then the residents group has grown to include every home in the above urban area.
 - b. Every MCLR on our email communications list has either been consulted by JH or interviewed by PB.

B. Initially PB's role required substantial learning of the [methods and theory about blasting, as well as the MCQ operations](#).

1. The effects on the residents living inside their homes when a strong blast vibration hits a private home:
 - a. Many residents described the blast shock wave as "like a bomb hitting their homes", and shift workers who are woken up were especially angry.
 - b. The MCLR can assure you that this is absolutely real and true, plus the adverse health effects are very strong.
2. In response to this and prior to beginning many MCLR constructions, the BCC provided us with a [letter signed by their Asphalt Dept Manager Chris Lange](#) giving assurance that the blast vibration levels emitted by the quarry were far lower than what could ever damage a private home (as also assured verbally by BCC MCQ Manager Robert Bell).
 - c. This was circulated to every resident and the indication was that no special precautions were needed.
 - d. No Brisbane engineers or building designers knew anything about blasting process.
 - e. It is almost impossible to find any Australian RPEQ Civil Engineer who has any blast vibration experience.
 - f. At the time of this BCC assurance letter, MCQ was grossly misreporting their blast vibration footprint and not advising the much higher locally measured weighbridge office vibration levels.

C. In 2011 upon analysing the blasting methods, the MCLR uncovered a large amount of relevant information:

1. The MCQ used Heilig Pty Ltd contractors to measure the blasts at [the much further away locations of Sussex St & Richer St](#) using a soil spike.
 - a. Both these locations and their transducer applications were [as specified by the BCC and MCQ](#) (hence the monitoring was not independent).

- b. As everybody knows [all noise gets fainter as you move further away from the source](#) and the BCC used this to provide grossly [misrepresented blast vibration footprint reporting](#) to the DES.
 - c. The BCC MCQ used this factor to blast much stronger, but still report their blast vibration footprint (as measured by a contractor) to be within the terms of their [SR0041/ IPDE00920708/ EPPR00447313](#) Blasting Environmental Authority (EA) Schedule F.
 - d. BCC & MCQ also monitored near their weighbridge office, which would have indicated what life was like at the closest homes and historical items.
 - i. However, this information was not required by the DES, so as not to restrict the MCQ overall blasting strength.
 - ii. It was also not provided to the residents via their RTI requests.
 - iii. No notice of blasting was provided to residents for more than a decade, so the very loud noise and vibration came totally unannounced.
 - e. BCC continued to allow local land Change of Use from Rural to Residential, plus they approved the home constructions, opposite the Quarry boundary.
2. We contacted DES officers asking why there was never any regular monitoring reported for the homes closest to the blast zone.
- a. After many attempts, the MCLR finally convinced [DES Tim Adams to order that monitoring must be done at the closest homes](#).
 - b. The first misrepresented blast vibration reporting had thus been uncovered and a [permanent blast monitoring site](#) was established beside Mt Coot-tha Rd (MCR) (159MCR).
 - c. The effect of this was an immediate drastic reduction of blast strength, however there was no consideration of any penalty towards the BCC and MCQ and no consideration of previous MCLR health effects or building damage.
 - i. At this stage [the MCQ blast count was c 600](#), however the real count being several thousand or even higher. (Somehow c1997 the MCQ blast count was reset back to zero).
 - d. We were later to find that this blast vibration difference was approximately 300%, hence a 10.11mm/sec blast measured at Sussex St could be above 30mm/sec at the private homes closest to the blast zone, (plus as mentioned below inside the MCLR personal homes a further 2.5 times higher again).
 - e. The blast vibrations inside the homes at this time [would have felt like a minor earthquake](#).
- D. In 2012 & 2013 the residents again complained that the vibration & noise inside the homes indicated that the blasting was still much stronger than what was being reported by the BCC MCQ to the DES.
1. The residents approached Andrew Fraser with complaints that [the measured noise inside the homes was considerably higher than the specified limit](#).
 2. At our only meeting with the BCC and DES, we were advised by DES officers that this internal home noise was the overpressure sonic boom, of which the limit was much higher than what we reported.
 3. We again argued that [the internal home noise could not possibly be an overpressure atmospheric concept and was therefore grossly illegal](#).
 - a. At the meeting, the DES officer overruled us saying that their policy was: "This internal home measured noise would only be considered as overpressure atmospheric noise".
 - b. This was clearly incorrect, but there was nothing that the MCLR could do at the time.

- E. During 2014, 2015 & 2016 the MCLR worked on and submitted [three separate change applications to Standards Australia](#) with several valid reasons why the blast monitoring Appendix J in AS2187.2 should be changed.
1. Our arguments listed important additional factual & relevant conditions such as: [high blast counts](#), [historic buildings](#), [tall building resonance](#) and [electronic equipment](#) which were totally absent. Human Comfort should also be changed to Human Health.
 - a. Our change project was supported by the [Institute of Engineers Australia](#), The [Institute of Australian Architects](#) and the [Catholic Church Asset management \(incl. Stuartholme\)](#).
 - b. AS2187.2 is due to be retracted this year, unless the Standards Australia CE-005 members require it to be updated. (QLD DES is not a member).
- F. In 2015 & 2016 the Best family noticed that their very new home, which they had very carefully designed and lovingly built as a family self-build, [had developed severe concrete floor cracking and bulging](#).
1. The damage seemed to be from the MCQ blast vibrations because:
 - a. This floor had stronger and thicker concrete.
 - b. The cracks exceeded those specified for shrinkage.
 - c. It had been approved by both our Engineer and Certifier.
 - d. It had never been used or driven on.
 - e. Subsequent mechanical engineer inspections stated that the cracks were not in the common shrinkage places.
 - f. The home would have been subject to extremely strong blast vibrations, extrapolated to be above 25mm/sec, and hence several times stronger than the DES ERA-16 statutory limit.
 2. Upon contacting the BCC Lord Mayor, they said to [lodge a complaint with their JLTA Lawyers](#), which was done. (This has never proceeded and is ignored by JLTA).
 - a. With each series of very strong blasts, [the cracks became longer and wider](#).
 - b. A 7mm high bulge appeared in our slab after the massive 3rd August 2016 blast.
 - c. As of today, this slab has never been used and sits waiting for JLTA lawyers to proceed,
 - i. Normally JLTA have a single cause and effect claim and are not equipped for a claim which is ongoing and controlled by a BCC works department.
 - ii. This being in an environment where the damage event repeats every one or two weeks and supposedly continuing until c2032.
 - d. After more than 2 years, the owners continue to wait for some finalisation of this case, whilst their cars sit outside developing rust and fading paint.
- G. The 2016 Residents Meeting
1. In July 2016 the [LR had a meeting at Steven Miles Electorate Office](#), to consider the damage being done to the MCLR homes.
 - a. Afterwards, the EHP [Director wrote to BCC MCQ](#) asking them to [reduce their blasting to the current state maximum](#).
 - i. They were also asked to conduct meaningful community consultation and mediation (they currently do nothing at all).
 - ii. BCC replied blatantly refusing these fundamental compliance requests.
 - iii. The BCC did this again in 2017 in response to a repeat letter.
 - b. A few days after this meeting on the 3rd August 2016, the BCC MCQ did a blast [which was measured as 10.4mm/sec at Mt Coot-tha Rd \(MCR\)](#).

- i. On this same day, the MCLR hired an [NTI-Audio XL-2 NATA approved Decibel Data-Logger](#) metre, to measure the extreme noise generated inside the homes from the blast vibration.
- ii. This was [supplied by NV Engineers](#) (NVE) in Camp Hill Brisbane and a [set monitoring procedure](#) was established.
- iii. NVE [setup the datalogger](#) so [all PB did was switch it on](#), go out of the home, return to the home after the blast, switch off and immediately return the datalogger back to NVE of Camp Hill.
- iv. The following day NVE downloaded the datalogger data and emailed the results to the residents.
- v. Plotting the [data on an excel spreadsheet](#) indicates that the home continued to vibrate for many seconds (possibly 30 seconds) after this massive blast.
- vi. Around this time our Electorate Office had obtained a list of recent MCR blast vibration readings and the LF knew in their own hearts that the blast footprint reporting by BCC MCQ to DES was again being misrepresented.
- vii. Clearly [the noise inside the homes could never be from any atmospheric event](#), which arrives later and typically lasts only one second.
- viii. The MCLR were later to find out that [the extrapolated blast vibrations for that date](#) actually [inside the private home were stronger than 25mm/second](#), which explained the huge noise reading.

H. 2016 Council Listens Forum.

1. In August 2016 at the Kenmore Library, some MCLR attended this forum but were not allowed to speak. Afterwards at the tables, they spoke personally with Cr Matic and LM Quirk.
 - a. The MCLR showed the photos of the damage to their homes and desperately pleaded separately with both Cr Matic and LM Quirk, to stop damaging their precious homes with strong blast vibrations.
 - b. LM Quirk later wrote back stating that [they will continue operating the quarry without any changes](#).
 - c. All our photographic evidence and pleading was ignored.

I. 2016-2017 the MCLR paid for their own BCC MCQ RTI Requests.

1. Having been completely ignored by Cr Matic and LM Quirk, the residents began to create [several RTI requests](#), to obtain as much blast vibration and operational data as possible.
 - a. [A large part of our request was refused](#) by the BCC on commercial confidence grounds, however [Cr Judy Magub had previously supplied most of this data](#).
 - b. Using the EHP/DES department as well, we obtained MCQ blast vibration measurements from 2001-2017, but this did not include the BCC MCQ weighbridge measurements.
 - c. The MCLR supplied this data to two [statisticians, and the reports state](#) that [BCC MCQ clearly misrepresented their blast vibration footprint reporting](#) to DES for 600 blasts.
2. In late-2017, the MCLR completed writing [an Extensive Mediation Style PDF document to the Lord Mayor](#) which included all the MCQ RTI data.
 - a. The document asked for an MCQ management committee to be setup.
 - b. The document included the [Key Resource KRA-42 which has zero separation zone](#) to the residential area and historical homes and monuments.
 - c. As some of the MCLR had court and legal experience, they went to extraordinary lengths to ensure that everything in the report was totally true.

- d. The report contained several reports and [photographs from residents, whose new homes were damaged by blast vibrations](#).
 - e. The [Lord Mayor dismissed our report as containing errors](#), however he would not state what or where the errors were.
- J. 2017-2018 the MCLR paid for Internal Home Blast Vibration monitoring.
1. In December 2017 the MCLR began a series of internal home [blast vibration monitoring sessions](#).
 - a. As of June 2018, they had recorded [10 monitor readings](#)
 - i. 9 were close to the BCC MCQ MCR permanent monitoring site (the same corner block property address).
 - ii. 1 was in a MCLR civil-mining engineer's home just below Stuartholme, which had recently shown non-shrinkage concrete cracking.
 - b. The blast vibrations measured inside the MCR home averaged [2.5 times stronger than those measured beside MCR](#) (using a Local MCR Comparison).
 - i. For example, an 8mm/sec blast measured at MCR monitoring point would equate to 20mm/sec inside the adjacent homes.
 - ii. Those below the much further away Stuartholme area, showed approximately the same as reported by MCQ for MCR.
 - c. These internal home blast vibrations can then be extrapolated to the 3rd August 2016 blast (just after the MCLR electorate office meeting), which indicates that a vibration level of more than 25mm/second was experienced inside the private homes opposite MCQ.
 - i. More than 5 times the [QLD-EHP/DES, Australian, NSW, Victorian](#) and [ANZEC](#) maximums (9 of 10 or 19 of 20 blasts).
 - ii. More than 12 times [the TMR Historic Building and Monument Maximum](#) and ANZEC Recommended Long Term Maximum.
 - *Note that none of these documents state any kind of repetition rates, or extended blast counts into the hundreds, or indeed the thousands as experienced by the MCQ LRs.*
 - d. The spreadsheet data shows that [many other very strong blasts have occurred between 2001 and 2017](#).
 - e. For example, an 8mm/sec blast measured at MCR monitoring point would equate to 20mm/sec inside the adjacent homes.
 - i. This is 10 times [the TMR Historic Homes and Monuments Maximum](#).
 - ii. and 5 times the normal [QLD EHP-DES, Australian, NSW, Victorian](#) and [ANZEC](#) maximum
 - iii. and double the absolute maximum for these regulators.
 - f. When considering the blasts done prior to Blast 600, where the MCR value was approximately 3 times the reported values, it is possible to arrive at a compounded internal blast vibration value, which is a multiple of the two upsize factors (each upsize factor is from unrelated causes).
 - i. This indicates that in 2002 when 10mm/sec was reported at Sussex St, that the values on MCR may have been in the region of 30mm/second, plus inside the homes this might have been another 2.5 times stronger again (possibly exceeding 60mm/sec total) which we believe would feel like earthquake Intensity Level 5 conditions.
 - ii. The truth is that, we will never know the real values until the BCC provides the locally measured blast vibration details.
 - i. Hence in an effort to make the extrapolated values more acceptable, we decided to do a 2-dimensional average system.

- Both Sussex St and Richer St values were extrapolated and the averaged.
- Except where only one site was measured, a linear extrapolation was used.
- This had the effect of reducing the MCR values as defined as a mean to reduce the extrapolated values to make them
- For the [Cobb & Co historic home and the Toowong Cemetery](#), this may have been more than 20 times the specified historic maximum blast vibration.
- The iconic, historic and tall Stuartholme is within the non-existent 500m KRA separation zone, and it is usually hit by around one third of the blast vibration levels at MCR.

K. Summary:

1. The MCLR made significant and documented efforts asking for consultation and mediation, for several years but have been totally ignored.
 2. The DES has totally failed the MCLR on multiple occasions, starting in c 1997 and continuing with MKL.
 3. The BCC MCQ is supplying commercial companies and should be subject to the same rules as other commercial quarry miners and suppliers.
- The BCC and MCQ have on many occasions refused or ignored requests for meetings with the residents.
 - At the EHP Minister's site meeting, the aggregates manager Mr Bird, turned and abruptly departed the meeting when spoken to by the LR.
 - [Schedule F of the MCQ EA clearly states](#) "as measured in or on any [noise sensitive place](#)", and the [EDO confirms that this is legally required](#).
 - However, the BCC MCQ has refused and/or ignored every request for them to monitor inside private homes.
 - Hence the MCLR were forced to go in their own direction and pay for all their own monitoring.
 - No BCC or EHP/DES employee or their agent, has ever been inside a private home when it is hit by a strong blast.

Yours Sincerely,

Philip Best, David Hassall and all the Mt Coot-tha Local Residents.