

**Mt Coot-tha Quarry (MCQ) Estimate Conclusions:**

(GVA = Gross Value Added)

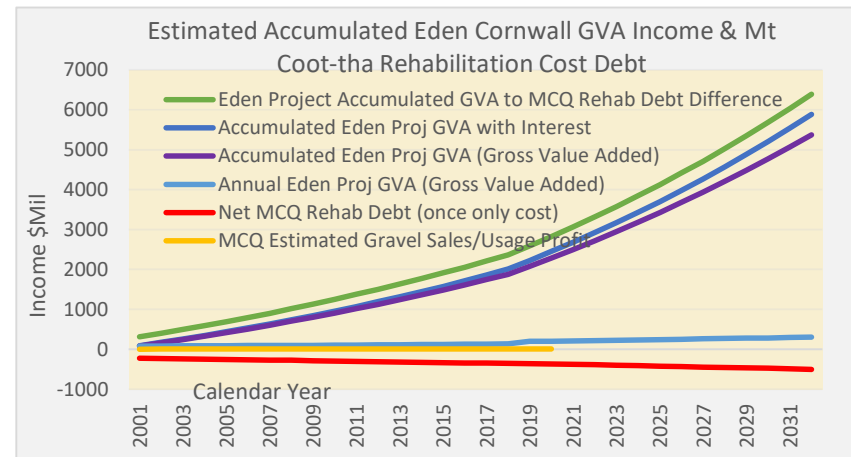
- 2001-2032 Eden Project Cornwall: Total GVA Income estimate = Double the Entire BCC 2019-2020 budget.**
- 2001-2019 Eden Project Cornwall: 19 year GVA = Double all Mt Coot-tha Quarry estimated gravel commercial value since 1900.**
- Eden Project Anglesea: 1300 new jobs (500 permanent), \$350 Million GVA over 10 years. Predicted to become as popular as Eden Cornwall.**
- \$Billions Better Off: Brisbane should have created an Eden Project and never blasted gravel from Brisbane's highly popular tourism precinct.**
- Delayed Rehabilitation Secret Debt: The Final Rehab Costs increase greatly every year & the more that Brisbane Ratepayers will Pay.**
- Broken Promises:** Repeated strong valid arguments for MCQ close and rehabilitation, were ignored by Lord Mayors Newman & Quirk.
- 8 Million Truck Movements:** This is the estimate required to move all that gravel through city streets, out to the Swanbank Asphalt factories.

**Estimate MCQ Rehab Debt from Roma St:**

	<u>Cost \$Mil</u>	<u>Upsize</u>
1. Get Final Roma St Parklands Costs	\$72	
2. CPI Annualise Roma St Cost to 2020	\$117	
3. + Extra Surface Area & 30% Contingency		316%
4. Estimated MCQ Rehab Debt by 2020	\$370	9% yearly

**Total MCLR-Estimated Exports Since 2001 (based on blasting data)**

Weight of all rock exports	15,279,623 Tonnes
Crushed Volume rock exports	7,819,653 Cubic Metres
Estimated Mine Costs since 2001	\$290 Million
Estimated Mine-gate Value since 2001	\$382 Million
Estimated Sales Profit since 2001	\$92 Million



**Eden Total Cornwall GVA and Mt Coot-tha Quarry Total Debt**

<u>Year</u>	<u>Eden \$Mil</u>	<u>Debt \$Mil</u>	<u>Difference</u>
2020	\$2,450	\$370	\$2,820
2025	\$3,701	\$432	\$4,133
2030	\$5,201	\$370	\$5,571
2032*	\$5,880	\$390	\$6,270
2035	\$6,994	\$421	\$7,415

**Eden Rehabilitation Project Anglesea - Estimations**

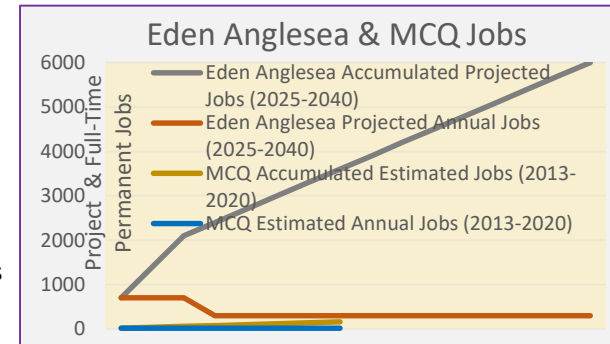
Year Rehabilitation Planning Started	2015	Finish	2023
Construction Period	18 to 24 months		
GVA (Gross Value Added)	\$350 Million over 10 years		
Predicted Future Return	As good as Eden Cornwall		
New Jobs Created	1300 Jobs		
Long term New Jobs	500 Full Time Jobs		
Estimated Surface Area Power Station	80 ha		
Estimated Mine Surface Area (Lake=31ha)	43 ha		

<b><u>Brisbane City Budget</u></b>	\$3,150 Mil
Queensland Budget	\$12,941 Mil
Queensland Debt	\$72,000 Mil

\* 2032 is the current BCC Proposed Mt Coot-tha Quarry Closure Date.

**Old Globe - Absolute Total Mt Coot-tha Quarry (MCQ) Hole Size/Volume/Finance Estimates**

1. Total Hole Horizontal Map Area ha	<b>30</b>	Verticle Surface Area	<b>9</b>
2. Total MCQ Surface Area ha	<b>39</b>	Eden Cornwall Area	<b>12</b>
2. Total Hole Volume	<b>13,433,985</b>	= Approx 13 million cubic metres	
3. Total Removed Hole Mass	<b>42,048,372</b>	Tonnes	
4. Total Crushed Volume	<b>21,519,095</b>	= Approx 20 million cubic metres	
5. Total Truck Movements	<b>8,409,674</b>	10T trucks to & from	
6. Total Extraction 2001-2010 (RTI)	<b>5,150,394</b>	Tonnes	<b>2,635,817</b> cubic metres



**The MCQ Local Residents Tragedy**

1. The 20 year MCQ story is one where the Mt Coot-tha Local Residents (MCLR) have been desperately battling the damaging MCQ Blasting.
2. The MCLR secured dust reduction measures, blast warning sirens and notification emails - where previously there were none at all.
  - 2011: Enlisted Qld Treasurer Andrew Fraser to force the MCQ to begin monitoring near the closest homes, instead of only much further away.
  - 2016: Measured the MCQ blasting noise generated inside the local homes. This was 500% more than the MCQ allowed maximum.
  - 2017: Analysed the effect of the MCQ distant monitoring. The MCQ had previously been misreporting their blasts by 300%.
  - 2018: Measured the blast vibrations inside private homes and found this to be 260% higher than what the MCQ was reporting.
3. The non-compliance was reported to the BCC Lord Mayor Quirk, who simply "disengaged" the local residents.
4. The MCLR are still working to stop the non-compliant activities which violently shake and damage the private residents homes & health.
5. All the MCLR ever wanted, was to be able to get on with our lives like other ordinary people. They cannot do this when homes get blasted.
6. The real tragedy is the total lack of any separation zones to the MCLR, plus the massive increase in repair costs from neglected rehabilitation.
- 7. The Brisbane City Council has repeatedly & unaccountably caused several decades of extreme public parkland and tourism income damage.**

<b><u>MCQ Blasting Statistics</u></b>	<u>Not Counted</u>	<u>Counted</u>	<u>Since 2001</u>
Total Number of blasts	Thousands	779	340
DES Maximum Blast Strength = 5mm/sec (90%) and 10mm/sec (10%)			
MCQ EA Maximum Blast Strength = 10mm/sec (90%) and unlimited (10%)			

**Private Home Blast Vibrations extrapolated from 1H2018 private home blast vibration measurements mm/sec particle velocity.**

	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	> 40	>10	>15	> 20
Count	105	111	48	29	7	1	2	303	198	87
Percent	34%	15%	9%	2%	0.3%	0.3%	0.6%	61%	27%	12%



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# Ground vibrations

From Wikipedia, the free encyclopedia

**Ground vibrations** is a technical term that is being used to describe mostly man-made [vibrations](#) of the ground, in contrast to natural vibrations of the Earth studied by [seismology](#). For example, vibrations caused by explosions, construction works, railway and road transport, etc. - all belong to ground vibrations.

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## General information [\[edit\]](#)

In seismology, ground vibrations are associated with different types of [elastic waves](#) propagating through the ground. These are [surface waves](#), mostly [Rayleigh waves](#), and [bulk longitudinal waves](#) and [transverse waves](#) (or [shear waves](#)) propagating into the ground depth. Typical frequency range for environmental ground vibrations is 1 – 200 Hz. Waves of lower frequencies (below 1 Hz) are usually called [microseisms](#), and they are normally associated with natural phenomenae, e.g. [water waves](#) in the oceans. Environmental ground vibrations generated by rail and road traffic may cause annoyance to residents of nearby buildings both directly and via generated structure-borne interior noise. Very strong ground vibrations, e.g. generated by heavy lorries on bumped roads, may even cause structural damage to very close buildings. Magnitudes of ground vibrations are usually described in terms of particle vibration velocity (in mm/s or m/s). Sometimes they are also described in [decibels](#) (relative to the reference particle velocity of 10<sup>-9</sup> m/s). Typical values of ground vibration particle velocity associated with vehicles passing over traffic calming road humps are in the range of 0.1 – 2 mm/s.

Magnitudes of ground vibrations that are considered to be able to cause structural damage to buildings are above 10–20 mm/s.