

Submission

On the

**Proposed Mangoola Coal
Continued Operations Project**

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Introduction:

The Mangoola Coal Mine Continued Operations Project is a State Significant Development (SSD) that must be assessed in accordance with relevant:

- Existing strategic plans and policies (Including State, Regional and Local),
- Feedback and comments from the relevant council(s),
- Specialised and technical input and advice received from Federal and State Government Agencies,
- Public submissions received during the exhibition, and
- The Public Interest.

Our Public Submission has particular focus on the associated specialised and technical input and The Public Interest.

Dr John Roseth, *Senior Commissioner, Land and Environment Court of New South Wales*;¹ stated that there is a role for planning principles in expert reports prepared for the Court. Additionally, the level of design skill applied to a proposal is also relevant to the assessments of its impacts.

*"In my opinion, not even a small impact is acceptable if it arises only from poor design... It is always unreasonable to impact adversely on someone if one can avoid it with more skilful design."*²

In *Pafbarn v North Sydney Council* [2005] NSWLEC 444 the Planning Principle concerning "necessity" was considered. This planning principle sets out the criteria for assessing impact on neighbouring properties:

1. How does the impact change the amenity of the affected property?
2. How much sunlight, view or privacy is lost as well as how much is retained?
3. How necessary and/or reasonable is the proposal causing the impact?
4. How vulnerable to the impact is the property receiving the impact?
5. Does the impact arise out of poor design?
6. Does the proposal comply with the planning controls?

The Mangoola Continued Operations approval process must consider how 'the project' facilitates ecological sustainable development (ESD) by integrating relevant economic, environmental and social considerations.³ Furthermore, according to environmental jurisprudence, if an administrator does not take ESD into consideration when making any development assessment decision under the Act, it will become strong evidence of failure to consider the public interest, thereby potentially rendering the decision void.⁴

¹ Speech to Law Society's Local Gov & Planning Law Seminar, 15 February 2005.

² Speech delivered at the NEERG Seminar on Planning Principles, 27 July 2005.

³ Section 1.3 (b), Objects of Act, *Environmental Planning and Assessment Act 1979*.

⁴ Daniel Montoya, Briefing Paper No 7/2013, [5.1] NSW Planning Reforms: Sustainable Development.

Decision-makers are often criticised for giving ‘lip service’ to the ESD Principles, despite their legislative obligation to apply them.⁵

*The principles of sustainable development are central to any decision-making process concerning the development of new energy resources.*⁶

The Hon. Justice Brian J Preston lectures “Environmental Dispute Management Law” in Master of Laws – Specialising in Environmental Law at ANU.

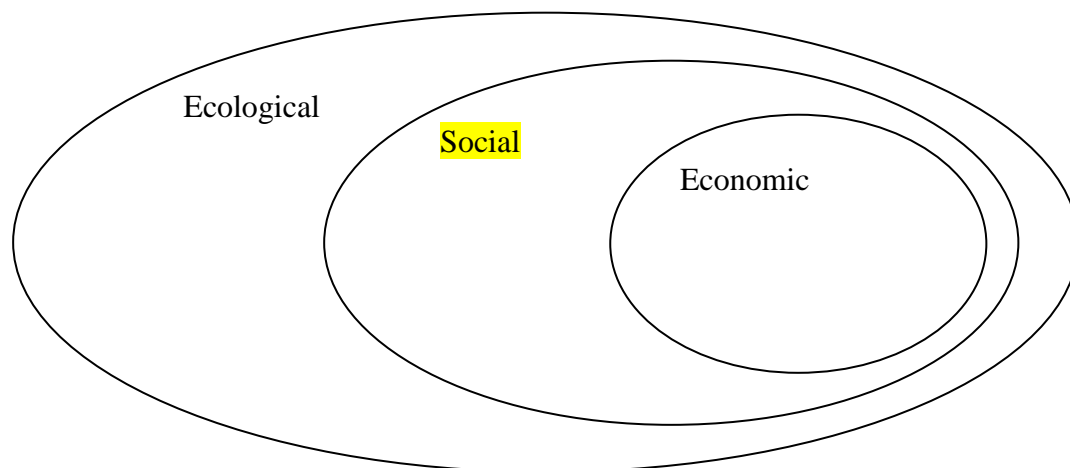
Justice Preston argues that Ecological Sustainable Development (ESD) involves a cluster of six core elements:

1. Principle of sustainable use,
2. Principle of integration,
3. Precautionary Principle,
4. Inter-generational and intra-generational equity,
5. Conservation of Biological diversity and ecological integrity,
6. Internalisation of external environmental costs.

We believe that the Mangoola Coal Continued Operations EIS has failed to effectively consider both the conditions for Inter-generational and intra-generational equity.

Inter-generational equity requires the present generation to ensure that the health, diversity and productivity of the environment are maintained or enhanced.⁷

While, *Intra-generational equity* involves people within the present generation having equal rights to benefit from the use of natural resources and from the enjoyment of a clean and healthy environment.⁸



Depiction of Triple Bottom Line.⁹

⁵ Jemilah Hallinan, Ecologically Sustainable Development, IMPACT (A National Journal of Environmental Law), P. 5. Issue 91, 2011.

⁶ Preston, B. Climate Change Litigation. Presented at the Judicial Conference of Australia Colloquium, Gold Coast, Australia, October 2008. 24

⁷ Preston, B. Environmental Dispute Management Course Lecture Notes, Master of Laws – Environmental Law, ANU September 2015.

⁸ Ibid.

The Environmental and Social Impacts of Mangoola Coal Continued Operations EIS, which raise concern include:

Environmental Impacts:

- Water accessibility and quality
- Air Quality
- Land Disturbance (Vibration) – Blasting
- Nuisance and Disturbance - Noise

Social Impacts:

- Health and Safety
- Housing displacements & Community loss
- Financial Loss due Land Devaluation and Rental Income Reduction

- **Water accessibility and quality**

We acknowledge that the Upper Hunter Region and State has been and remains in severe drought for a number of years. Nevertheless, our ground water static level has significantly reduced since the Mangoola Coal Mine has commenced.

Arguably, Water Table Scientific Assessments includes various assumptions due to unknown interactions between various water aquifers and the broader regional ground water flows and pressures.

We consider that our local ground water static water level may have lowered due to the reduced ground water resistance downstream. This lowered resistance may have been caused by open cut mines exposure of underground streams, thus allowing upstream water levels to lower as the held back water is able to release faster.

Mangoola Coal Continued Operations Project E.I.S. States:

The groundwater levels within the Permian are influenced by topography and more recently the progression of mining activities at Mangoola Coal Mine.¹⁰

The groundwater assessment found that given the distance to other mines and the fact that surrounding mines are not extracting from the same geological sequence means cumulative impacts are not considered likely.¹¹

⁹ United Nations (UN). United Nations Millennium Declaration; A/RES/55/2; UN: New York, NY, USA, 2000. 19

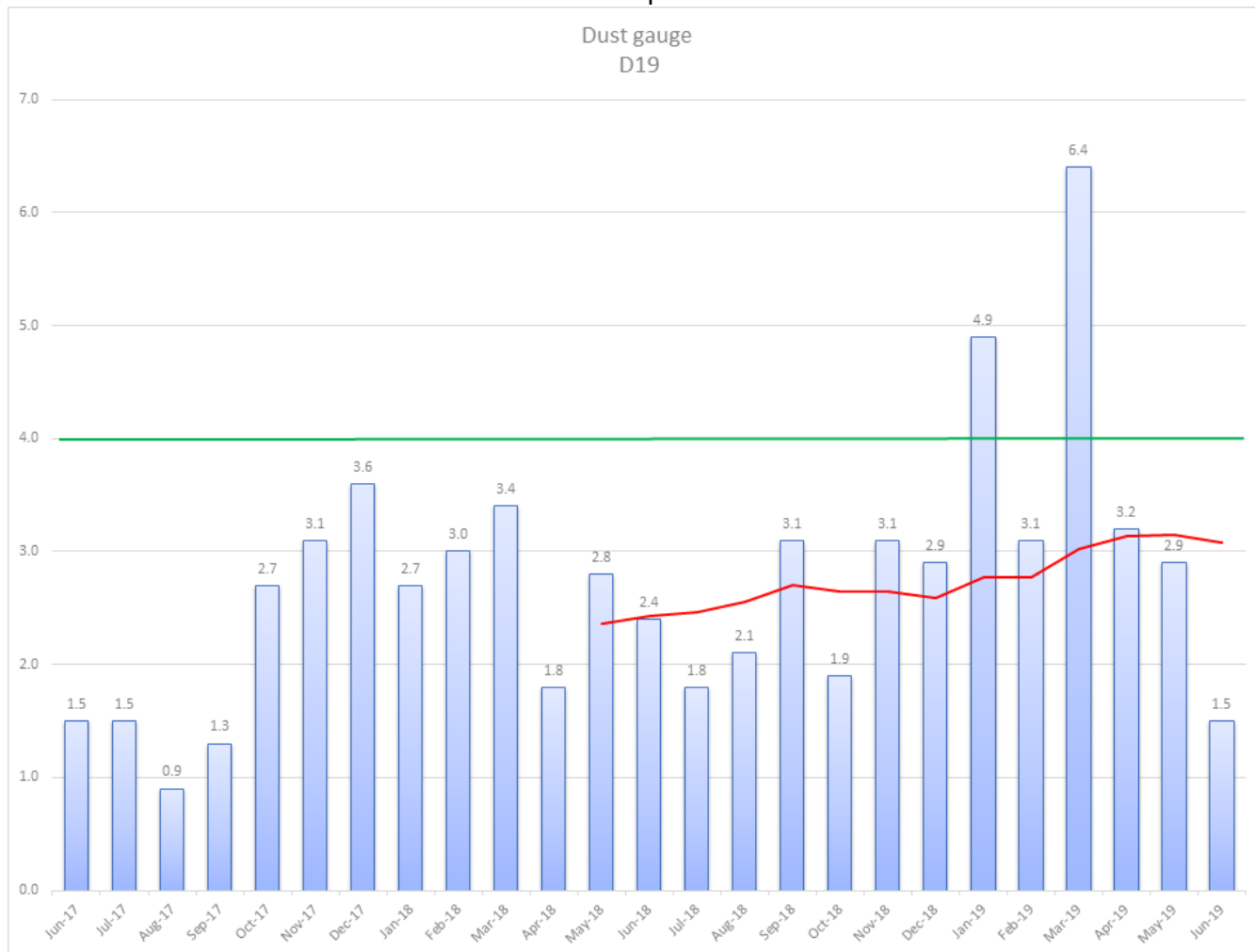
¹⁰ At 7.3.1.1 P. 400 of the Mangoola Coal Continued Operations Project E.I.S.

¹¹ At 7.3.4 Summary of Cumulative Assessment Outcomes, Ibid.

▪ Air Quality

We often see the Blast Fumes following Mangoola Coal Mine Blasts. The potential harm that could be caused from Blast Fume and Diesel Particulate is concerning.

Dust Record at 1801 Castlerock Road for the past 3 Years:



Mangoola Coal Continued Operations Project E.I.S. States:

Blast Fume and Diesel Emissions

Modelling of blast impacts was under taken for... worst case emission scenarios. The MCCO Project is predicted to comply with the relevant criteria at all private receivers. All other surrounding private receivers are more distant and are predicted to have lower levels than those predicted at the nearest residence.¹²

TSP and Dust Deposition

Modelling indicates that there are no private receivers which are predicted to experience exceedances of the annual average TSP criterion (90 µg/m³) or the annual average dust deposition criteria (4 g/m²/month).¹³

¹² At 6.5.2.2 P. 199, Blast Fume, 6.5.2.3 Diesel Emissions, The MCCO Project E.I.S

¹³ At 6.5.2.1 P. 194, Air Quality, The Mangoola Coal Continued Operations Project E.I.S

▪ **Land Disturbance (Vibration) – Blasting**

Our house sits on a concrete slab, which makes the built structure prone to stress and damage from ground movement. It is acknowledged that periods of dry and then wet weather can create ground movements, however, cracks in house walls and concrete pavements surrounding our swimming pool have occurred, since Mangoola operations have commenced.

We hear and feel most MC Blasts.

Occasionally, Mine Blasts have caused fright with our livestock.

Mangoola Coal Continued Operations Project E.I.S. States:

Blasting

The ground vibration modelling for residential receivers within a 5 km radius revealed that ground vibration impacts can be managed effectively within the specified blasting parameters.¹⁴

Livestock

In the absence of accepted blasting criteria for livestock, potential impacts on livestock have been considered in a conservative manner in the context of the relevant residential blasting amenity criteria, which are set to maintain human comfort.

The assessment concluded that based on predicted ground vibration and blast overpressure, there were no concerns for the wellbeing of livestock on private land surrounding the MCCO Project area.¹⁵

¹⁴ At 6.6.2.1 Private residences, Blasting, P. 206, The MCCO Project E.I.S

¹⁵ At 6.6.2.4 Livestock, Blasting, P. 207, The MCCO Project E.I.S

▪ **Nuisance and Disturbance – Noise**

We challenge the scientific accuracy of MCCO Noise Model. Figure 6.5 in MCCO EIS presents the 35 dB (A) Noise Contour snakes around our residences of 174A and 174B. We fail to comprehend how an open-cut mine project within a few kilometres of our residence and almost in a straight line, cannot cause significant noise issues to our residential houses.

We note that noise monitoring occurred during very quiet periods and never when we could hear the current Mangoola Operations. We also note that the noise monitoring took place on Castlerock Road near our 174A residence, close to a small hill obstruction. Minimal land obstruction exists from residence 174B, similar to residence 175, which has been purchased by Muswellbrook Coal Mine.

It is also worth noting that the properties of 1756 and 1834 Castlerock Road have been denied residential building approval due to their proximity to Mangoola Coal Operations. Although there is a residence on 1802 Castlerock Road, the Land Clearing and Building Construction approval has been questionable and the Land Subdivision of the Land encompassing these three properties did not undergo Environmental Flora or Fauna Studies as part of the approval process.

The Noise Contour presented at the MCCO Community Day at the Wybong Community Hall on Friday 9 August 2019, exhibited a rural residence on 1834; This information is incorrect and misleading.

Mangoola Coal Continued Operations Project E.I.S. States:

For those properties not in the acquisition zone, private land was assessed in accordance with the VLAMP to determine whether acceptable amenity noise levels plus 5 dB would be exceeded over more than 25 percent of any property area.

The percentage of private land exceeding the night period acceptable amenity noise level plus 5 dB was considered as it has the highest model predictions and the lowest amenity noise level and was found to be less than 25 percent in all cases.¹⁶

¹⁶ At 6.4.2.2 Private Land Assessment, Operational Noise, P. 181, The MCCO Project E.I.S

▪ Health and Safety

The Key Findings of the 2012 Research Paper on the Health and Social Harms of Coal Mining in Local Communities found that there are clear indications from the international health research literature that there are serious health and social harms associated with coal mining and coal-fired power stations for people living in surrounding communities. The report found that:¹⁷

Adults in coal mining communities have been found to have:

- Higher rates of mortality from lung cancer, chronic heart, respiratory & kidney diseases,
- Higher rates cardiopulmonary disease, chronic obstructive pulmonary disease (COPD) and other lung diseases, hypertension, kidney disease, heart attack and stroke, and asthma.
- Increased probability of a hospitalisation for OPD (by 1% for each 1462 tons of coal mined),
- Poorer self-rated health and reduced quality of life.

Children and infants in coal mining communities have been found to have:

- Increased respiratory symptoms,
- High blood levels of heavy metals such as lead and cadmium,
- Higher incidence of neural tube deficits, a high prevalence of any birth defect, and a greater chance of being of low birth weight (a risk factor for future obesity, diabetes and heart disease).

International studies corroborate Upper Hunter domestic concerns, The Appalachian counties of West Virginia in the USA have a high density of open-cut coal mining, where there is a documented, increased risk of all forms of cancer.¹⁸

Living close to coal mining areas was also associated with an increased risk of cardiopulmonary disease, chronic obstructive pulmonary disease, hypertension, lung and kidney disease.¹⁹

Studies show that lung related mortality is greater in the high coal mining areas of the Appalachia compared to the rest of the USA.²⁰ In fact, mortality was higher for all causes in areas of the Appalachia that were subject to heavy coal mining.²¹ Between 1999 and 2004, there were 1607 excess annual deaths in these areas, after results were adjusted for ages, sex, smoking, occupational history, education, family history and socio-economic background.²²

¹⁷ Health and Social Harms of Coal Mining in Local Communities, Ruth Colagiuri, Johanne Cochrane and Seham Girgis – Health and Sustainability Unit, 2012. Pages, iii-iv.

¹⁸ Henryx *et al.*, ‘Self-reported cancer rates in two areas of West Virginia with and without mountaintop coal mining’ (2012) *Journal of Community Health* 320, 327.

¹⁹ Henryx and Ahern ‘Relations between health indicators and residential proximity to coal mining in West Virginia’ (2008) 98 *American Journal of Public Health* 669, 671.

²⁰ Hendryx, O’Donnell and Horn, Lung cancer mortality is elevated in coal-mining areas of Appalachia’ (2008) 62 *Lung Cancer* 1, 1.

²¹ Henryx and Ahern ‘Mortality rates in Appalachian Coal mining Counties: 24 Years Behind the Nation’ (2009) 124 *Public Health* reports 541, 550.

²² Ibid.

Mangoola Coal Continued Operations Project E.I.S. States:

The size of particulate matter determines its potential impact on human health. Larger particles are usually trapped in the nose and throat and swallowed, whereas smaller particles (pm2.5) may reach the lungs.

Exposure to particle pollution is known to have an impact on human health, particularly for people with pre-existing health conditions.

There is no known safe level of exposure where there is no potential for an impact on human health (WHO 2005).²³

▪ **Housing displacements & Community loss**

A few residents at the southern end of Castlerock Road and most of Wybong Road Residents have been bought by Mangoola Coal. Muswellbrook Coal Company has also purchased a number of properties in the area, which has resulted in changing the entire aesthetics of the locality permanently.

I don't know how this form of community loss can be effectively mitigated, replaced or compensated?

Mangoola Coal Continued Operations Project E.I.S. States:

A comprehensive Social Impact Assessment (SIA) of the MCCO Project has been undertaken by Umwelt to identify, assess, manage potential negative impacts and enhance positive social impacts associated with the MCCO Project on local and neighbouring communities.²⁴

²³ At 6.2.1 Particulate Matter, P. 384, Operational Noise, The MCCO Project E.I.S

²⁴ At 6.3 Social, P. 149, The MCCO Project E.I.S

▪ **Financial Loss due Land Devaluation and Rental Income Reduction**

Market values within the surrounding project area have been adversely affected by the existing Mangoola Project, MCCO project and the West Muswellbrook Coal Project (proposed by Muswellbrook Coal – Idemitsu).

I have been forced to reduce the rent income on my 1791 Rental Property and now my Son and his family reside their due to the public resistance to live near and among open-cut coal mines.

Mangoola Coal Continued Operations Project E.I.S. States:

The most frequently identified social impacts related to property (70), with concerns centred on the potential decrease in property value due to proximity to the mining operation; a sense of entrapment as a result of perceiving to be unable to sell property in the area; and concerns pertaining to acquisition zoning in relation to the MCCO Project.

Independent investigations (Tew, 2018) relating to changes in property values and sales data from 2005 to 2018, for properties in proximity to mining operations, was investigated; with the assessment suggesting that rural properties vary markedly in property value and are influenced by many factors including land classification, size and condition; however the negative impacts of mining on property values are more likely to be localised or individually evident, and consequence of a particular property's proximity to a mining operation.²⁵

²⁵ At 6.3.4.1 Proximal Landholders, Social Profiling, P. 156, The MCCO Project E.I.S

Summary:

We are a family that generally supports most developments, provided that the appropriate approval process is followed and that the consequential consent conditions are fit and proper.

In principle, we don't oppose the concept of a MCCO Project, given the employment and financial benefit that flows into the Region and State Government.

However, we challenge the MCCO Project EIS based on the issues we have outlined. Large quantities of literature do not equate to more credible scientific evidence.

There will always be unknown, uncontrollable, external influences on decision makers when dealing with a major environmental approval. The environment is not static and EIA is an iterative process, with many stakeholders, and opportunities for comment or engagement which more often than not will add to the risk/impacts that need investigation and assessment. This often results in further assessments. The last assessment often becomes the benchmark for subsequent projects in the absence of a robust justification.²⁶

We request:

1. The details why the properties of 1756 and 1834 Castlerock Road have been denied residential building approval, and
2. Why our residences (1801 & 1791) we are *harm free* when we live so close to properties that are deemed unacceptable to build residential houses due their proximity to Coal Mines?

Under (General items) Heading, on the final page of the *2015 PAC Review Report on the Bengalla Mine Continuation Project*, the following recommendation is made:

The area between the three mines (Mt Arthur, Mangoola and Bengalla) would likely be subject to mining in the future so Government could consider requiring mines to set up a trust to purchase properties should land owners want to sell now.²⁷

Given, the proximity of our properties to the West Muswellbrook Coal Project, it may be sensible to consider that Project's Environmental Impacts upon our land and residences. Nevertheless, life goes on and we have not received a News Letter from Muswellbrook Coal since December 2017 and that issue provided negligible project information. Everyone wants and deserves certainty.

Regards,

Scott & Karen Jennar 28-8-2019

²⁶ Concluding Remarks, Certainty in uncertainty: navigating environmental impact assessment regulatory processes, Geraldine Squires Principal Impact Assessment Manager, CEnvP IA Specialist, GHD Pty Ltd, P. 9.

²⁷ Planning Assessment Commission, Bengalla Mine Continuation Project Review Report, January 2015, P. 48.