

**Submission
to the
New Acland Coal Mine
Stage 3 Project
Environmental Impact Statement**

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Submission from
Doctors for the Environment Australia Inc.
College Park House, 67 Payneham Road
COLLEGE PARK SA 5069
Phone: 0422 974 857
Email: admin@dea.org.au
<http://www.dea.org.au>



The following are members of our Scientific Committee and support the work of
Doctors for the Environment Australia

Prof. Stephen Boyden AM; Prof. Peter Doherty AC; Prof. Bob Douglas AO; Prof. Michael Kidd AM;
Prof. David de Kretser AC; Prof. Stephen Leeder AO; Prof. Ian Lowe AO; Prof. Robyn McDermott;
Prof. Tony McMichael AO; Prof. Peter Newman; Prof. Emeritus Sir Gustav Nossal AC; Prof. Hugh Possingham; Prof.
Lawrie Powell AC; Prof. Fiona Stanley AC; Dr Rosemary Stanton OAM; Dr Norman Swan;
Prof. David Yencken AO

Doctors for the Environment Australia (DEA) is an independent, self funded, non-government, health advocacy organisation of medical doctors in all Australian States and Territories. Our members work across all specialties in community, hospital and private practices. We work to minimise public health impacts and address the diseases – local, national and global – caused by damage to our natural environment.

Summary

We contend that the Environmental Impact Statement (EIS) response to the Terms of Reference (TOR) is inadequate and requires revision.

The EIS does not contain any evaluation as to whether the project is of value to the community; it deals only with projected economic gain and avoids projected economic loss from health and agricultural impacts and from resource consumption which might have more sustainable uses.

The EIS has avoided these questions because they were omitted from the TOR but even with the requirements of the TOR, they have not been properly addressed.

Previous submission

In our joint submission on the TOR with Economists at Large http://dea.org.au/images/uploads/submissions/New_Acland_Stage_3_Submission_02-13.pdf our public health experts made recommendations on air pollution, noise, climate change issues and sustainability and our economic partners made recommendations on proper economic evaluation. Most of these were ignored.

Economic considerations

In our submission to the TOR we pointed out:

Proper cost benefit analysis should be conducted and results presented, rather than display of eye-catching but non-comparable statistics. The proponent should also be required to take into account the cost of the local environmental damage where the coal is mined, the local environmental and health impacts where the coal is burned, and the ongoing global damage that will result from the greenhouse gas emissions that are released on burning. These costs if accounted for would possibly exceed any short term gain.

This was ignored.

Since the procedures adopted for the EIS are not those of procedures advised (in other situations) by the Queensland government the explanation must be either due to ignorance and/or failure by the departments responsible for the EIS or a wish to proceed with the project whether or not it is of value. For example, the government may need short term revenue and is prepared for the negative costs to be deferred to at a later date.

In the EIS we note:

The proponent estimates the project would result in an economic contribution of \$8 billion for the life of the mine. Construction costs are estimated at \$700 million.

Comments received in the 67 submissions received in the December 2012 draft TOR have been considered by the Coordinator-General in finalising this TOR" (page 2).

In other words proper economic assessment of the project has been excluded from consideration by the Coordinator-General without explanation. We are left without any assessment of the value of the project to the community or to the state or nation.

However, putting this aside, we contend that even the minimalistic requirements of the TOR have not been carried out.

For example:

In **3.5 Project alternatives**, it is stated
Describe feasible alternatives including conceptual, technological and locality alternatives to the proposed project and the consequences of not proceeding with the project

The response in 2.2.1 (page 79) is totally inadequate for it provides only one side of the ledger and this failure is confirmed in chapter 17.

In **3.6.2**, it is stated

The purpose of the EIS is: to provide public information on the need for the project, alternatives to it.....

This has been transgressed in that the public information is selective and limited and does not include the value of the project. It has not been whether the community and the state might be better off without the project. This possibility has been avoided.

In our submission to the TOR we stated:

The case should be made for the economic viability of this project taking into account all health, environmental and social costs. The proponent is reminded that the EIS process encompasses health impact assessment which includes all aspects of community health, including social and mental health aspects and social disruption. All these processes are intended to look at the balance of positive and negative impacts upon which informed decisions can be made. From an economic perspective, this balance should be assessed through cost benefit analysis.

The EIS has avoided proper health impact assessment, risks and health costs by not including Commonwealth guidelines in the TOR. Indeed the words "health impact assessment" are not present in the TOR.

As indicated in Health Impact Assessment guidelines

[http://www.health.gov.au/internet/main/publishing.nsf/Content/9BA012184863E206CA257BF0001C1B0E/\\$File/env_impact.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/9BA012184863E206CA257BF0001C1B0E/$File/env_impact.pdf)

The costs of failure to protect and promote health fall on governments, the community generally and individual members of the public. These costs are unlikely to be borne by a proponent. Ensuring that such costs are not incurred by non-beneficiaries is both equitable and good economics.

This will be explored in relation to the following health issues;-

TOR 5.5 Air quality and EIS Ch 9

Medical science now indicates that there is no safe level for particulates and it is inconceivable that Australian air standards will not move to the more rigorous standards recommended by the World Health Organization (WHO) and the European Community. Medical science indicates that even these standards are insufficient to prevent an increase in mortality of those exposed [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)62158-3/abstract?rss=yes](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62158-3/abstract?rss=yes).

The EIS takes no account of this and in particular;-

We note the Environmental Assessment assumes that PM₁₀ level goals will remain static throughout the duration of the project out to 2029. Even if regulatory goals do not decrease, societal expectations of cleaner air will increase. Urban air in major capital cities will continue to improve in quality while the air quality in the New Hope mine area will worsen and in many areas exceed the PM₁₀ levels in major cities.

In terms of the value of the project to the community the likely health impacts need to be assessed and costed in populations exposed locally, during transit of coal and at termination.

We note the EIS does not address annual average PM₁₀ emissions. PM₁₀ is the major particulate of concerns from mines due to the extractive processes, overburden losses, and dust generated from road haulage. Additionally, annual average PM₁₀ is more predictive of health impact than short term peaks - the EIS does not address this. It appears that the average PM₁₀ will be permitted to perhaps double in the mine impacted area but the EIS is focused on the number of predicted 24 hour exceedances of PM₁₀ of 50 µg/m³. This is not the most important health indicator and the focus should be shifted to the incremental health impact of the increase in annual average PM₁₀ and PM_{2.5}. The California Air Resources Board (ARB) standard annual average goal for PM₁₀ is 20 µg/m³ as is the long term WHO Air Quality goals for Europe http://whqlibdoc.who.int/hq/2006/WHO_SDE_PHE_OEH_06.02_eng.pdf.

Any modelling beyond a 10 year timeline could take the precautionary assumption that the annual average PM₁₀ goal may have been reduced to 20 µg/m³ over that time period.

Chapter 9 Air Quality, page 9-25, assuming an 85% control factor for control of in-pit hauling is very ambitious. This is one of the major sources of PM₁₀, a sensitivity analysis assuming a control factor 75 or 80% would provide a more realistic range of estimates for PM₁₀ impacts.

Emissions of dust from vehicles on haul roads are the major single source of PM₁₀ from open cut mines. The PM₁₀ level predictions for this project were based on the assumption that haul road watering and suppressant application would achieve a control efficiency dust emission of 85%. Given that most mines audited in NSW (and likely QLD) which only achieved a control factor of 50 to 75% for haul road dust suppression (Katestone: 'NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and / or Minimise Emissions of Particulate Matter from Coal Mining' Table 102, page 204), a sensitivity analysis displaying PM₁₀ predictions for control efficiencies of 75%, 80% and the target of 85% would be useful for decision making in regard to this project.

The adaptive air quality management interventions are the basis for a secondary modelling exercise that shows a massive reduction in PM₁₀ impacts across the most heavily impacted receptors. These adaptive air quality management interventions should be further explored (with more methodological explanation - including how each component leads to the reductions) in further modelling using the annual average PM₁₀ as the outcome of interest (both cumulative and incremental from the project).

It may be that the adaptive air quality management interventions should be implemented throughout the entire project to achieve more acceptable annual average PM₁₀ levels.

Other health harms requiring economic assessment

The impact of noise has recognised harms to human health. These harms are insufficiently addressed in the EIS, and the EIS fails to acknowledge the impacts of the noise from the current mine on local residents. A proper assessment of existing noise levels around local residences needs to be undertaken with 24 hour monitoring. Only then can the impact of additional noise generation be considered.

The impact of loss of agriculture on the rural community. This is a sustained economic loss of asset and production in sustainable employment and production which cannot be balanced by a short term exploitation which is subject to the vagaries of the international coal market. With the state of world food markets and current and future risks to food security in Australia and elsewhere, there has to more justification for this mine.

The cost of coal mining

Taking all health factors into account the cost of coal mining to the community is significant and in many cases not worth supporting.

In this regard, note should be taken of a paper published in August 2011 by William Nordhaus, one of the most respected economists in the US. It was the lead paper in American Economic Review, the leading economics publication, and the findings have not been contested by any other economists. The original text is quite technical but this précis is more easily understood.

It estimates the value of air pollution damage created by several industries in the United States. The impacts of six pollutants (sulphur dioxide [SO₂] nitrous oxide [NO_x], volatile organic compounds, ammonia, particles at less than 2.5 microns [PM_{2.5}] and particles less than 10 microns [PM_{10-2.5}]) are estimated on human health, agricultural yield, visibility, accelerated depreciation and human recreation. Air pollution concentrations are related to human illness and death and the economic loss estimated.

This is what the study found: Several industries cause damages greater than their "value added" - i.e. the difference between the value of the inputs they take in and the value of the output they produce. Coal fired power generation was found to produce damages from 0.8 to 5.6 times its value added. In other words, the damage caused is worth at best 80 percent of the net value of the industry and at worst 5.6 times greater <http://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.101.5.1649>.

These are remarkable findings, which indicate at best that coal fired power generation has no economic value to the community. At worst the industry is a huge economic burden.

In the view of Doctors for the Environment Australia such a study provides a compelling reason why a complete and holistic economic assessment should be made of each coal mining proposal.