

Dr Richard Stiles
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1/5/14

Mining and Industry Projects
NSW Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001

Dear Sir/Madam,

**Part 3A Modification 4 – Invincible Mine Extension (DA 07_0127
MOD 4) and
Part 3A Modification 2 – Cullen Valley Mine Extension (DA 200-5-
2003 MOD 2)**

I hereby submit my objection to the above proposed modifications to the Invincible and Cullen Valley mines. Further to this, I would ask the Department of Planning and Infrastructure (DoPI) to consider rejecting these DA modifications. The reasons for suggesting this are as outlined below. These comprise some, but by no means all, of the problems associated with the proposed mining extensions.

I have been working as a medical practitioner in the Lithgow region for the last 15 years – and have developed some understanding over this time of the particularities of the health burdens this mining community faces.

General Historical Appraisal

Following the rejection of the larger Coalpac Consolidation Project in 2012/2013 by the Planning Assessment Commission 1 and the Department of Planning and Infrastructure, Coalpac Pty Ltd declared itself insolvent and was placed under administration.

In communication statements from the appointed liquidators, McGrathNicol, it appears the main interest in Coalpac seeking to extend its mining operations at this site is to facilitate on sale of these approvals to Energy Australia. This company now owns the Mt Piper Power Station (MPPS) and the electricity retail rights thereof.

This clearly then is a last gasp effort of a failed mining company trying to salvage some money out of its mining leases. It also represents a somewhat mercenary interest from a larger energy company to buy up coal mining leases at a bargain price to access cheap coal – irrespective of the broader costs this might have.

The previous Coalpac Consolidation Project (CCP) was rejected by multiple agencies. It sought claim to mine 995 ha of the Ben Bullen State Forest (BBSF) in close proximity to the township of Cullen Bullen.

The main basis of the rejection of the CPP by the DoPI rested with the adverse environmental impacts of the project. Given the department's clear position on this, the other adverse factors – such as the impacts on the general amenity and health of the local residents – were not dealt with in so much detail.

Analysis of the Proposed Modifications

1. Environment

The current claim seeks to mine 315 ha of BBSF – 150 ha via open cut mining and 165 ha via highwall mining.

The question then comes as to whether a smaller scale mine could address the adverse environmental (and social impacts) that were considered unacceptable in the larger proposal?

The proposal will still have impacts on the BBSF pagoda landform complex – especially in its denuding of the lower forest tier of this

complex and the potential of the highwall mining to cause subsidence damage to the pagodas. The proposed modified mining operations will still lie closer to the pagodas than was recommended by the previous PAC1.

So does removing a smaller section of an area of natural significance, as this area is widely recognised to be, make it then acceptable? If instead of ripping the Mona Lisa completely to pieces, would just tearing half of it off the canvass make it alright? This is an area that warrants natural protection – as has been acknowledged by multiple academic, non-government and government agencies. It would thus appear problematic to suggest that destroying only a part of it is OK.

The bio-offset policy is again deeply flawed. Again, in order to highlight the logic, if someone were to propose to build a shopping mall where the Sydney Opera House was – and then suggested that they would preserve a different building elsewhere – how would this go down? If an area is recognised as being of national natural significance – especially if there are no other similar areas (which for the pagoda landform complex are not in the proposed off-set areas) – then where is the environmental, if not moral, basis to accept such an offset proposal?

Similarly Coalpac's proposals run counter to any standard reading of the government's policies on Ecologically Sustainable Development - that developments are supposed to comply with. Reading the attempts of a coal miner making a case for how irrevocably altering a valuable area of natural heritage can comply with the elements of the Environment Operations Act 1997 that relate to ecologically sustainable development makes for challenging reading! The laws read well – it is sad that companies hope we can disregard them when considering such mining activities.

There are reported to be a variety of other problematic inconsistencies with Cumberland Ecology's report – for which people/organisations with more expertise than me will I'm sure offer comment.

2. Social

(i) Health

In terms of social impacts, the actual scale of the mining will not be significantly reduced during the time of the mining operations. The CCP was proposed to be done in a sequential fashion over 20 years. This current proposal just seeks approval for the first stage of the CCP. For the next 4 years there will be virtually no difference to that which would have been experienced from the original CCP.

These current modifications also continue to mine in close proximity to the people of Cullen Bullen. The mine will encroach far closer than the 2km protection margin that is currently the NSW National Party's policy position.

It is true that the modified DA, if it did only run for 4 years, would result in a lower (though not non-significant) overall environmental and social impact than the original CCP. However if after 4 years a further extension is sought – as has been the unfortunate pattern already for this mine – then this will just amount to an effort to re-claim the previous rejection via a staged process. In this case there would be no overall reduction of impact.

In great detriment to the public confidence in the mining assessment process, such a staged approach is not uncommon. It would be far fairer to all for the full terms of the mine to be set out in the original approval.

For the CCP, the Department of Health submitted an analysis that raised concerns regarding potential morbidity and mortality impacts from the

mine. These would remain to the degree that the mine continues. As I previously mentioned, especially if the mine were to continue to proceed in a staged fashion, then all of these concerns would remain.

As with my previous submission for the CCP, which should be accessible in terms of the review of this current project, the Lithgow region (including Cullen Bullen) suffers from above average morbidity and mortality burdens. There is good evidence that the excess health burdens in coal communities in part relates to the impacts of mining and burning coal in their local proximity. That is, these communities warrant *special health considerations* when it comes to the impacts of the surrounding industries.

Lithgow traditionally has had mainly underground mines. These have reduced the surface impact of the mining to a certain degree – both in terms of environmental and social impacts. Coalpac has altered this, as it has used open cut and highwall mining as its primary mining techniques. These have far greater impacts on the land and on aerosolised particulate spread. Approving this mine will also offer a deleterious precedent for the other companies in the area that are looking at using open cut mining for various extensions.

I have attached my previous submission for the CCP as an addendum at the end of this submission. This contains relevant data relating to the health issues surrounding the Lithgow region, which includes Cullen Bullen – that remains highly relevant for this current DA modification request.

(ii) Aboriginal Heritage

Coalpac has claimed in its report that there are no sites of Aboriginal heritage within the proposed modified mine boundaries. However local community groups have found this to be false – having found at least

one Aboriginal art site within the relevant area. It should be noted that this was found after a fairly brief exploration. It would be far from the first time that Coalpac's EA claims have been found to be lacking in accuracy and rigour.

3. Economics

Coalpac's economic consultant's claims have previously been challenged by independent economists during the CCP assessment process (Richard Dennis, Australia Institute). Given there is no apparent change to the modelling approach in this revised DA, there is little to suggest that these problems have been addressed.

It should be made plain that Coalpac's claims that it will generate local jobs also needs to stand alongside the reality that the *mine will cost other jobs* that could arise should it not proceed. Tourism for this town that has many remaining scenic qualities (despite the mining to date) would be a clear example.

The claimed benefits to the local economy also need to stand alongside the cost this mine will have to local land prices and other businesses. Does one think that the value of local agricultural land and its industry has not been adversely affected by having large-scale mining operating in close proximity – and that further mining will only erode these more?

In fact it may well be that the local land price disadvantage that this mine is creating, and will further create, could counterbalance most, if not all, of the claimed economic benefits. No such analysis was considered by Gillespie Economics despite it being an obvious impact. Such is the partisan nature of the terms of reference of such consultancies.

Summary

The proposed 4th modification of the Invincible Mine and the 2nd modification of the Cullen Valley mine represent the last ditch efforts of Coalpac, a now insolvent mining company, to extract some residual value out of its mining leases.

While the revised modifications represent a lesser claim than the previous Coalpac Consolidation Project, they still represent claims for substantial open cut and high wall mines that will adversely affect the Ben Bullen State Forest, an area of significant conservation interest, particularly because of its pagoda landforms.

It also still represents a claim to mine very close on both sides of the township of Cullen Bullen – with remaining concerns about the health and other social amenity impacts this will create.

The claims of economic benefit from Coalpac via its economic consultant have previously been demonstrated by independent analysis to be rubbery and do not address economic disadvantages of having such a mine here.

The very fact that we are looking at this number of serial modifications clearly suggests this may well be not the final stage of this mine. It would be a public travesty if a mine that was rejected after extensive review will then be allowed to slowly proceed along its previous trajectory via a less honest, staged process.

Coalpac is not a company that has well managed its corporate responsibilities. There has been a lot of local adverse comment about the differential manner in which the executives and the ordinary workers were treated in the processes leading up to its filing for insolvency.

The modified DA has been worked up by a company that has failed. It remains a poorly conceived project. The publicly stated intention of

Coalpac to on sell this mine to Energy Australia, should it be approved, would just transfer this lax process to another agency.

Thus on the grounds of its proposed impacts and given the opportunity that an approval would offer to further extend such adverse impacts, I would suggest it would be in the greater public interest for the government to clearly state that it does not consider mining in the Cullen Bullen area to be appropriate – over a variety of reasons. The sad story that Coalpac and its mining operations have become should be facilitated to end.

On these grounds I would ask that you would consider rejecting these further modified mining DA's.

Thank you for the opportunity to make a public submission on this project.

Yours sincerely,

Dr Richard Stiles

Addit: I have completed and attached the political donations form, as required, for the last 2 years.

Addendum:

Submission re: Coalpac Consolidation Project No: 10_0178

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Dear Sir/Madam,

I would like to submit my objection to the notion of approving, in any degree, the Coalpac Consolidation Project No: 10_0178 (hereafter CCP).

Over the last 13 years I have been working as a medical practitioner in Lithgow. As such I have become acquainted with the significant social and health burdens suffered by this community, which includes the township of Cullen Bullen. The latter locality will almost completely be ringed by the CCP, should it be approved.

I will thus concentrate on the health and social related aspects of the proposal.

1. Health Implications

a) Local Health Considerations

The Lithgow Local Government Area has health statistics that are shared by many coal communities. These include above state average rates of respiratory diseases (e.g. asthma, chronic obstructive pulmonary disease), cardiovascular diseases (e.g. myocardial infarctions and cerebrovascular accidents), metabolic diseases (e.g. diabetes), renal disease and slightly higher cancer rates. Significantly, the Lithgow LGA has a premature mortality rate that is 30% above the NSW state average and an all cause mortality rate that is well above the state average. Mental health figures are also relevant but I have not seen any specifically collated for the Lithgow region. Studies (e.g. Castleden et alⁱ) relating to other coal communities find higher prevalence of mental health diseases in coal communities and there is no reason to expect that these would not apply to the Lithgow region.

The following is derived from the SWAHS Healthcare Services Plan, 2006. This, to date, offers the most current overview of the population health statistics in the Lithgow region:

“Lithgow

The health improvement issues for Lithgow residents are of particular concern. Four of the six health risk factors are above NSW rates. The hospital SSR for all conditions are above state levels, and also significantly above total Sydney West Area Health Service ratios. Of particular note are the separation rate ratios for diabetes (202.8) and asthma (180.1). The overall mortality rate ratio (131.8) is also significantly above NSW and Sydney West levels.

6 NSW Health: *Report of the NSW Chief Health Officer, 2004* 7 Sources: NSW Health Surveys 2002 and 2003 (HOIST). LGA was based on the respondent self-reported; NSW ISC data (HOIST); ABS mortality data (HOIST).

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Lithgow

Health Risk Factors (rates)	Lithgow	SWAHS	NSW
Smoking	28.2	22.9	21.9
Adequate physical activity	39.7	40.0	45.8
Overweight & obesity	52.9	49.9	47.3
Any risk alcohol consumption	38.7	29.6	35.0

Morbidity (SSR)

Diabetes	202.8	115.1	100
Asthma	180.1	120.9	100
Acute myocardial infarction	149.4	106.9	100
Injury	143.0	107.8	100
Cerebrovascular disease	135.7	95.6	100
All causes hospital separations	126.0	101.7	100
Ischaemic heart disease	123.2	104.4	100
Cancer	120.7	90.2	100

Mortality (rate ratios)

All causes premature deaths	131.8	101.3	100
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Attention is also warranted to the outlying all cause mortality statistics for Lithgow, as evidence on page 11 of the attached SWAHS Healthcare Services Booklet.

A detailed analysis of the sub-factorial causes of these disparities remains to be done. This would need to be a large-scale population health study. However numerous studies strongly suggest that coal communities’ proximity to coal mining (especially open cut) and coal burning activities are a significant co-contributor to these adverse health profiles. ^{ii iii iv v vi}. These are but a few relevant medical literature references. A more comprehensive list can be found through the work of Dr Dick van Steenis, who is an authority on industrial, and especially mining, effects on health:

<http://www.countrydoctor.co.uk/precis/precis%20-%20References%20-%20van%20Steenis.htm>. A further helpful analysis has been done for a coal community in Britain, Douglasdale – the Coal Health Study. The following is some of the literature review related to this: <http://coalhealthstudy.org/2009/08/15/coal-health-study-literature-review/#comments>

Importantly, in terms of the political debate, lifestyle analyses do not seem to account for all the observed disparities. Teasing out these sub-factors is a complicated business (it took over 20 years of research to

definitely prove that smoking causes lung cancer and other respiratory disorders) – and relatively little of it has been done. The studies that have been done looking at controlling for these issues are not unanimous in their findings, as one might expect in a complex environmental health area. However there have been some large studies that have factored out lifestyle risks in coal communities and have still found excess health burdens.^{vii} In Lithgow's case, at first glance it would seem problematic, for example, that a smoking rate 25% above the state average would translate into an asthma rate that was 80% above the state average. At minimum, such a difference would prompt the need for further analysis.

It was for these health related concerns that SWAS Population Health Unit in a 2009 submission to the NSW government recommended that any expansion of the Mt Piper Power Station (MPPS) should be gas, rather than coal, fired. That is, their modelling predicted that more coal related emissions from MPPS would likely adversely cumulatively impact on the already sub-optimal health of the residents of the Lithgow LGA.

Similar concerns arise when considering a large-scale expansion of open cut mining on the western flank of Lithgow. While the CCP is significant in itself, its approval is also likely to generate further impetus to expand Enhance Place Pty Ltd.'s Pine Dale mine (Stage 2 is already under consideration by the Department of Sustainability, Environment, Water, Population and Communities as a controlled action. Pine Dale's Stage 2 seeks to further annex approx. 500ha of Ben Bullen State Forest for open cut mining). Centennial Pty Ltd also has an interest in potentially developing its Neubeck's Creek mine as an open cut mine in the adjacent land. That is, approval of this project is likely to augment the intensity of open cut mining in the Lithgow region over and above this isolated project. It would be poor planning if such a trend was not considered.

Considering CCP alone, and especially in it's co-relation to other proposed and potential open cut mines in the vicinity, this represents a significant shift in mining focus in the Lithgow region. Traditionally most of the mining has been underground. The latter form of mining reduces the surface impacts and minimises surface pollution flowing from mining processes. Thus an expanded zone of open cut mining on the western flank of Lithgow represents a significant new threat in terms of health risks.

Again the cumulative health risks of intensification of the coal industry in the Lithgow region need to be considered – especially with the climatic temperature inversions that tend to concentrate air pollution closer to the ground than otherwise would happen, especially in winter. It needs to be recognised that the MPPS sits approximately 8km south of Cullen Bullen. Figures from the National Pollution Inventory show that as a single site, it has some of the most significant air pollution discharges in the state: <http://www.npi.gov.au/>. The following is a recent report on the level of emissions relating to the MPPS: <http://www.smh.com.au/environment/pollution-index-reveals-the-hidden-costs-of-electricity-20100402-rjy0.html>

The main point here is that this region is already exposed to numerous adverse industrial air pollutants. These may well be playing a significant role in the region's adverse health statistics. A major expansion of open cut mining in this region is likely to only add fuel to this fire.

Specific Comments on the CCP EA report:

Air Quality Impact Assessment

Firstly, analytical modelling is only as good as the quality of the input data. The environmental consultancy firm, PEA Holmes, uses historical data from the air quality monitors at the Invincible and Cullen Valley mines as raw inputs for their modelling. Significant questions arise as to the quality of this data. Under the current EA, Coalpac commits to real-time monitoring. However this has not applied to date. Coalpac has not had the best record in terms of its monitoring standards to date and has been subject to a number of non-compliance penalties, including relating to its monitoring practices. It is quite possible, given the non-comprehensive nature of the monitoring to date (only on 1 out of every 6 days has monitoring been completed), that selective monitoring practices may have occurred – such as non-recording on blast/high dust days. Such questions raise concerns about the nature of the input data, which in turn could lead to resultant modelling errors.

It should be noted that, while mentioned in the Executive Summary and the Acoustics Impact Assessment, I could find no mention in the Air Quality Impact Assessment of the temperature inversions that mark a relevant aspect of this region's climate. This would seem highly relevant to air pollution considerations with this mining proposal and it is a concern, in terms of quality, that this report should fail to mention it.

Putting these input quality issues to the side, the analysis offered does suggest that a number of residences (up to 25% in some of the data sets) are likely to experience air quality conditions that do not meet

recommended guidelines. Many of these residences have no contractual arrangements with Coalpac.

It would appear that the health risks, at least the respiratory disease risks, are not in dispute with Coalpac. PAE Holmes states in its Air Quality Impact Assessment, “There are potential risks to human health associated with exposure of blast fume. Acute and short term risks may include; coughing, shortness of breath, irritations of the mucous membranes of the eyes, nose and throat and pulmonary oedema. Medium and long term effects may include Reactive Airways Dysfunction Syndrome (RADS), in rare cases bronchiolitis obliterans and chronic respiratory insufficiency (**AEISG, 2011**).” What they do not specifically mention in their report is that blast fumes represent only one of a number of adverse health impacts that an open cut mining project can have on the local community. Fumes and dust related to operational machines and transport vehicles, health aspects of the noise and vibration associated with blasting and transportation and industrial accidents also need consideration.

The Department of the Environment, Climate Change and Water currently only requires analyses for Total Suspended Particles (TSP) and airborne particles above PM10. This is unfortunate, to say the least, given the body of research that now suggests that smaller particulate sizes, such as those less than PM2.5, may be more hazardous to human health. Smaller particles are less easily filtered away by the body’s airway defences from reaching the deeper aspects of the lungs. Once present at an alveolar level the smaller particles are then thought to be able to cross into the blood stream. Many of these particles are toxic to human biology. This may represent one of the principal modalities whereby the extra-pulmonary disease manifestations that are seen in coal communities are mediated – hence facilitating the cardiovascular,

renal, and cognitive health disparities that are observed in these communities.

Thus it is possible that the most significant public health risks derived from the open cut mining process have not been accounted for in the EA.

Cullen Bullen Public School will sit in the centre of the encompassing proposed mine, at some points at only just over 1 km from mining activities. This poses a particular health concern as children, with their smaller airways, are more prone to asthma and related respiratory dysfunction when exposed to environmental triggers.

As has occurred with other communities adjacent to open cut mines in Australia, most notably in the Hunter Valley, it is quite foreseeable that as the mining progresses and parents see their children developing asthma, they and health authorities will start to raise augmented health concerns about the school's proximity to the mine. In time this may well result in the closure of this school, as has occurred in similar circumstances elsewhere, as is outlined below.

The government will no doubt be aware that the Central Council Natural Resources and Energy Policy Committee of the National Party of Australia^{viii} has suggested a 5km buffer zone between towns and villages and open-cut coal mining. There are both health and social reasons to endorse this policy. Almost the entire CCP lies within a 5km radius of the Cullen Bullen township.

Acoustics Impact Assessment

As with the Air Quality Impact Assessment report, the consultancy firm Bridges Acoustics notes from their modeling that a number of residences, many again with no contractual agreements with Coalpac, are likely to be adversely affected by noise levels from the mine that exceed recommended guidelines.

I would be interested to know by what standards such public intrusions are weighed? What proportion of local residences is considered OK to adversely impact on?

Though unfortunately in these assessments it does not always seem to occur, it is relevant to consider cumulative impacts here. We have reports of adverse local impacts in terms of air, noise and local transportation issues, not to mention the loss of local bush land. Cumulative impacts are synergistic in terms of local quality of life. It would seem blindingly obvious that it would be difficult (read likely impossible) to open cut mine circumferentially around a town without this having a tangible adverse impact on the local public amenity. We should not lose sight of the woods for the trees.

b) Global Health Considerations

The job of selling the mining of coal as a climate friendly practice is tough one! If one reads the EA's greenhouse gas (GHG) emissions sections, the dominant theme is that this coalmine will represent a negligible, and thus non-relevant, addition to greenhouse gases.

The executive summary states:

“The emissions estimated for the Project will not individually have any significant impact on global warming. Applying the principles of Ecologically Sustainable Development, it is considered that there will be no increase or measurable impact on climate change as a result of the Project, since the supply of coal to the Mount Piper Power Station by the Project will be supplied either from this or another project.”

The summary conveniently omits the caveat that concludes PEA Holmes’ GHG assessment; “In practice, of course, the effects of global warming and associated climate change are the cumulative effect of many thousands of such sources.” In this light, the 146,713,030 tonnes of CO₂ that are projected to be released into the atmosphere as a result of this mining operation are hard to justify as of no significance.

Ecologically Sustainable Development principles are presumably those derived from the relevant Australian government department, The Department of Sustainability, Environment, Water, Population and Communities. On their website, ESD is defined as such:

“Australia's *National Strategy for Ecologically Sustainable Development* (1992) defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.'”

It is problematic, to say the least, as to how an open cut mine that will destroy a biodiverse overlying forest and increase health and social stability risks for a local community satisfies such a definition. It may

produce coal that can be burnt for electricity but again it is highly disputable as to whether this augments “the total quality of life, now and in the future”. As such the statement should be read as an inappropriate misnomer, inserted perhaps for the sake of trying to tick some regulatory box. This project is in no way an ecologically sustainable development.

If it can be held that humans need to minimize our CO₂ emissions, then the ethics of the GHG assessment in this report is akin to a heroin dealer arguing that their local contribution to the global heroin trade is negligible and thus not relevant! It is comforting, in the best black humour sense, that the company commits to looking into the feasibility (only if the economics are favourable) of powering their transport vehicles with “alternate” fuels – as they move their coal about!

In the report’s effort to make the CO₂ implications of the mine diminishingly irrelevant, it has misallocated the current global annual CO₂ emissions (~35Gt of CO₂) for the total volume of atmospheric CO₂ (~ 3000Gt). In doing so, its figures of percentage contribution of this project to CO₂ levels are out by a factor of one hundred!

The EA states that Coalpac will be the closest coal supplier for the MPPS. This is technically incorrect as there are other coalmine suppliers that lie closer to the MPPS than the proposed CCP. It would also appear a way that Coalpac is trying to shore up its future contracts with the MPPS. There is no guarantee that the MPPS will wish to derive the stated volumes of coal from the CCP. There has been much discussion in the Lithgow region about the competitive threat that some of the coal mines further west represent, in terms of supplying the MPPS. The MPPS is trying to not be beholden to local coalmines in its capacity to get the best price for its coal. Thus there may be less security around these supply issues than the EA suggests. If these local contracts fail then the CO₂ advantage that Coalpac claims for its transportation needs will be lost.

In 2009 the Lancet stated, "Climate change is the biggest health threat of the 21st century".^{ix} Currently we have no effective way of sequestering atmospheric CO2 emissions. The burning of coal is the world's largest GHG amplifying agent. It is not possible to coherently make a case that one can mine for coal for use in thermal power stations and that this has no relevance to GHG emissions. The attempt of this report to do so greatly undermines its quality. Unfortunately, currently humans can't make coal clean – and this report's attempt to argue that black can be white is an insult to intelligence.

2. Social Implications

a) Cullen Bullen

If approved, the CCP will mine approximately 270 degrees around the township of Cullen Bullen. This is a small but still functioning town. The mine will extend to 1 km from the town's public school at its centre. According to the EA's figures, the township of Cullen Bullen has progressively declined over the period when mining activities have been occurring. This would tend to raise questions about the company's statements that the mining project has been of major employment/community benefit for the town.

If we look at the Hunter region we can see that where mines have encroached close to townships that ultimately many of the towns decline. The following is a list of school closures impacted by nearby mining operations:

In the Hunter region - Ravensworth, Warkworth, Hebden, Oak Park
In the Mudgee region - Wollar and Ulan schools have been severely impacted and probably won't last for too much longer.

Such closures represent the loss of basic community supports. They represent steps in the decline of such towns – and this is far from over-dramatisation, as these historical examples attest.

The EA states that the CCP will augment employment in the region. This may be selectively true, though many of the jobs will go to people living further afield (who will not have to live day-to-day surrounded by these mines).

What is not mentioned are the employment and social costs of this project. Already property prices have fallen in this region – with resultant economic loss for the owners. If basic infrastructures, such as schools etc, start to close – as could well occur - then the town will be on a pathway of decline. That is, this mine could represent the longer-term death of this town, rather than its economic saviour.

The scales of the surrounding agricultural economy are downplayed in the report compared to the economic returns of mining the region's coal. What is not mentioned, and what the National Party and farmers have consistently reminded the miners, is that agricultural practices can continue long term, whereas the gains from mining are short lived. Thus, over time, the disparities of economic benefits from mining compared to agriculture become progressively less – and do not result in the major social disruptions that opening and closing mining operations generally entail.

The company states that it wishes to re-invest some of profits for the benefit of the local community. To date this has meant a total of \$10 289 donations towards community infrastructure and \$138 752 donated to Lithgow City Council, supposedly earmarked for the Cullen Bullen community. Discussions with Cullen Bullen residents and acknowledged by the Coalpac management team have suggested that almost none of the donations to Lithgow City Council have returned back to the Cullen Bullen community to date.

Given the size and duration of this project to date, these sums of money would seem rather paltry compared to the derived earnings from the mining of coal in this region – a public asset. This would seem to not auger well in terms of the company's stated interest in assistance for the local community.

Though there has been some controversy about sampling procedures by the survey performed by Lithgow City Council, an independent petition against the CCP received the support of 120 named local Cullen Bullen residents. In a town of 200 people, this suggests that a majority of the town's residents are opposed to the mine – and this could be an underestimate.

It is interesting to read that mining operations will be suspended during burial ceremonies at the local cemetery. Anomalously the dead appear to gain more deference than the living; or are they due a final moment of solitude after living through a lifetime of blasting?

b) Lithgow and its Economy

As is noted in the EA's analysis of the Lithgow LGA's demography, the Lithgow region is failing to match the growth achieved (in population or average income terms) of its neighboring towns. This is the subject of much discussion in the Lithgow region.

One of the consistent themes that is voiced from a variety of positions, from the General Manager of the Lithgow City Council and extending across various sectors of community opinion, is that Lithgow has a real (if not survival) need to diversify its economic base. While mining has been the traditional base of the Lithgow economy, it is now no longer the majority employer. Indeed many community leaders now see that Lithgow urgently needs to move away from its traditional vision of perceiving itself as a 'mining town'. Such a stigma repels many other potential businesses – that have chosen in recent history to establish themselves in the towns further west, despite the larger distance from Sydney that this entails.

That is, on a broader economic and social analysis, mining may well be holding Lithgow back. Focusing on mining and burning coal as *the* economic priority of the Lithgow region risk undermining the future prospects of this region. This focus, and their reluctance to shift from this perspective, by the traditional Labor Party majority of Lithgow City Council may well be a significant factor in what is predicted to be a generational shake up in the composition of council at the up coming local council elections.

In this context the behaviour of Lithgow City Council has been somewhat perplexing. Last year they voted unanimously against the

proposal, citing concerns about its effect on the local community. More recently they have reversed this position (though not in a unanimous vote), stating that the mine should be no closer than 500m to the township! Thus they have shifted from advocating on behalf of the community of Cullen Bullen to a recommendation that the mine can undertake Australian *worse* practice in its zones of exclusion – truly a remarkable transition. Such an anomalous transition can only make one wonder about what is going on in the local politics of Lithgow.

Lithgow is actually situated adjacent to a beautiful and biologically rich hinterland. It lies adjacent to biodiverse forests and unique geological topography. Tourism has great potential as another strong arm in Lithgow's economy – as has been recently demonstrated by the Emirates group establishing a six-star eco-resort in the Wolgan Valley – just to the east of the proposed CCP.

To date most of the industrial impacts of coal mining have been kept underground. While still having surface impacts, in terms of subsidence and resultant land and water effects, these are of a category difference compared to the surface effects of open cut mining.

So would approving the development of the expansion of open-cut mine along the western edge of Lithgow represent sound economic management? I would argue quite likely not. Lithgow needs to progressively move away from coal mining in order to flourish. The CCP would move the town in the opposite direction – offering every new visitor a large scar of mined earth – a great tourist welcome.

3. Environment

While not being an area of technical expertise for me, it would be inappropriate not to mention the environmental losses that would result from this project.

Most of the mining will occur in the Ben Bullen State Forest (BBSF). This forms part of the Gardens of Stone Stage 2 Proposal that aims to conserve the remaining high conservation value native landscapes in the Lithgow region. BBSF comprises forests of high biodiversity and unique geological features such as the pagoda landforms^x. A major land disturbance on the western edge of this with the CCP, and other open cut mining applications that will more than likely follow suit, obviously would be a conservation loss.

The OEH and the NPWS have recommended reserving the Ben Bullen State Forest as a State Conservation Area. From a conservation viewpoint it would be highly undesirable to excise a part of this for mining purposes.

4. General Considerations

It should be noted that the CCP represents lower return, what might be termed 'scavenger' mining. Most of the area has had the larger seams underground mined. The remaining coal seams are relatively thin, compared to other mines in the region, and the amount of over-burden needed to be removed to access them is significant. The coal has a higher ash content (~40%) and is thus less effectively burnt. Up until

recent years the MPPS only accepted coal with ash contents in the order of 22-26%.

Thus this is not high quality coal – that is being extracted at a high ecological and social price. Such economic considerations are evidently only feasible when the price of coal is high and larger scale land removal technologies have been developed.

Moreover, despite its assurances of best practice, Coalpac does not have a glowing corporate record. In its undertakings in 2006, when it sought an extension of the Invincible Colliery, it offered to progress towards underground mining. This never occurred. It then said its open cut operations would not be visible by the public, specifically not from the Castlereagh Highway. I would suggest anyone not familiar with the project to go for a drive along the highway now to see the extent to which this has been complied with. The only public citizens that this project is not currently visible to when driving down the Castlereagh Highway would be those who are blind.

The judge at the NSW Land and Environment court made this remark in his concluding judgment remarks about a license breach where the company continued to sell coal in excess of its license limits for a period of a year:

“I am somewhat troubled by the conduct of the defendant (Coalpac) particularly after June 2007. Nevertheless, I will take into account the company’s contrition and its insight into the commission of this offence.”^{xi} (After June 2007 the company knew that it would breach its licence limits but continued to do so)

There have been a variety of non-compliance issues over the years – in terms of its monitoring standards and its maintaining coal outputs within agreed limits. The longer-term effects of its inadequate rehabilitation of Canyon Colliery (that was also under this company's management) are only now becoming more appreciated with the excess zinc and nickel contamination that is now occurring from the water discharge from this mine into the Grose River.

These issues do not offer great corporate assurance that if this project – deficient over a variety of environmental, health and social grounds – were to go ahead that the level of rigour held out in the EA would actually eventuate.

Presumably the consenting authority for such projects attempts to weigh up the pros and cons of the proposal in coming to their decision. This makes me wonder how such value deliberations are made. The report's consultants have noted that the project will have from mild to significant adverse impacts for a number of people living near the project – over a range of issues: air quality, noise impacts, transportation inconveniences and risks etc – in a community that already suffers from excess disease and mortality burdens. It will also have an uncontestable adverse impact on the forest that will be irrevocably altered as a result of the mine. I have argued that it may be another impediment to Lithgow's efforts to diversify its economy – which may underpin Lithgow's longer-term success or failure. It will be another step in adding to our GHG burden – with all its medium to longer-term implications for health and social stability.

To counter this is the estimated \$1.5 billion in harvestable coal that is projected to be extracted. The profits from this will fall into the pockets of Coalpac. Approximately 90 local jobs will be maintained for the life of the project (again with other local jobs lost/devalued).

So the value of the money gained from this coal is contestable, as to how it should influence this weighing up process. In terms of people affected, it is quite likely that more people will be adversely affected than gain benefit (the, currently limited, shareholders of Coalpac). In terms of environment there is no question as to whether the state of the land will be better or worse off as a result of the mine. I hope the dollar value of the CCP is not being used as a form of influence, in terms of the royalties that the state government could derive from such a project.

So we are left with the end users of the coal – those that gain benefit from the supply of electricity. How do we weigh up their needs? They benefit from access to electricity, yes. Do we, however, have choices to make in terms of where we access this power?

It is said the Iron Age didn't end when the iron ran out. Similarly the coal age is unlikely to end when coal runs out. We still have numerous reserves of coal. With the remaining reserves that we intend to use as we (hopefully) re-engineer our energy needs to cleaner sources, we should focus on using the better coal reserves – in terms of quality of coal, and those that can be accessed while minimising impacts on our environment and social amenities. I would suggest that the CCP meets none of these criteria.

5. Summary

The proposed Coalpac Consolidation Project represents a further step by Coalpac Pty Ltd to up-escalate the intensity of its mining operations by which it hopes to extract residual low-grade coal deposits under the area of its mining lease. In particular, the project proposes to almost circumferentially ring mine in close vicinity around the township of Cullen Bullen.

Being an expanded open cut mine proposal it would stand as the most destructive mining project in the Lithgow region to date, in terms of its surface impacts. It would also open the gate to further open cut mining in the adjacent mining leases held by other mining companies – further compounding this effect. The compounding of risks from these mines and the coal burning in the Lithgow region, though highly relevant, is not addressed in the report.

Such a shift in type and intensity of mining practice in the Lithgow region will be or has a high risk of being deleterious for the following reasons:

It will

- Further increase the health risks for the people living in the vicinity. This community is already disadvantaged, in terms of its health and social profiles.
- Risk undercutting the longer-term viability of the township of Cullen Bullen.

- Create an industrial impact that will adversely impact on other means of economic development in the Lithgow region – most notably tourism, agriculture, and the capacity of the town to recruit non-mining business. Lithgow has a pressing need to broaden its economic base away from a narrow focus on mining.
- Majorly degrade an area of the Ben Bullen State Forest – that has been recognized by various governmental and non-governmental bodies as a region of high conservation value.

These represent a broad and significant cohort of reasons that the Coalpac Consolidation Project should not be supported. It is the wrong form of mining, in the wrong place, at the wrong time.

6. References:

ⁱ Castleden, W.M, Shearman D., Crisp G., Finch P. 'The mining and burning of coal: effects on health and the environment'; Medical Journal of Australia 2011; 195: 333-335

ⁱⁱ Asthma and open cast mining. J.M.F. Temple and A.M. Sykes, British Medical Journal, 1992.

ⁱⁱⁱ Laden F, Schwartz Joel, Speitzer FE, Dockery DW. 2006 Reduction in Fine Particulate Air Pollution and Mortality. Extended Follow-up of the Harvard Six Cities Study. Am J Respir Crit Care Med Vol. 173:p.1-6
Found 3% reduction in deaths for every 1ug/m3 average reduction of PM2.5 air pollution.

^{iv} Miller KA, Siscovick DS, Sheppard L, Shepherd K, Sullivan JH, Anderson GL, Kaufman JD. 1 Feb 2007. Long-Term Exposure to Air Pollution and Incidence of Cardiovascular Events in Women. New England Journal of Medicine. Vol 356:No. 5. pp 447-458. 10ug/m3 PM2.5s increased CVS deaths by 76%.

^v Karr C, Lumley T, Schreuder A, Davis R, Larson T, Ritz B, Kaufman J. 2007. Effects of Subchronic and Chronic Exposure to Ambient Air Pollutants on Infant Bronchiolitis. Am Jour.of Epidemiology 2007:165(5):553-560

vi van Steenis D. 8 April 1995. Airborne Pollutants and Acute Health Effects. Lancet 345.



vii MacCalman, L., Miller, B.G. 'Mortality in an extended follow-up of British coal workers'; Inhaled Particles X, (23–25 September 2008, Manchester) Journal of Physics: Conference Series **151** (2009) 012050

viii Central Council Natural Resources & Energy Policy Committee-The Nationals NSW, submission of 24 April, 2012 to the draft Strategic Land Use Policy, SECTION 4.0.

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x Washington, H.G. and Wray, R.A.L. 'The Geoheritage and Geomorphology of the Sandstone Pagodas of the North-western Blue Mountains Region'; *Proceedings of the Linnean Society of New South Wales* 132, 131-143, 2011.

xi Minister for Planning v Coalpac Pty Limited [2008] NSWLEC  271  (11 September 2008)

7. Political Donations: attached are the completed forms relating to my donations to political parties over the last 2 years, as required.