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## Nature Conservation Saves for Tomorrow

February 3, 2013

### BMCS Response to the Planning Assessment Commission's Review (PAC1) of the Coalpac Consolidation Project (CCP): Main Report

#### 1. General comments

In the interests of reducing repetition, BMCS and several associated groups have, as a function of their particular areas of expertise, elected to focus on different aspects of the PAC1 report. This effectively means that from Planning's viewpoint each of the separate submissions has the combined groups' authority.

The Society congratulates the PAC on its comprehensive evaluation of the vast amount of data with which it was confronted, including those data presented at the public meetings. The PAC's analyses are insightful (and perhaps inciteful!) and demonstrate a sound grasp of the CCP's diverse issues.

The Society wholeheartedly endorses the principal finding that [PAC1 p157]: *"... when the merits of the project are considered as a whole, the benefits of the project are substantially outweighed by the breadth and potential magnitude of the impacts. The Commission therefore recommends that the project should not be approved."*

The Society acknowledges that the recommendations (Section 9.5) in the report [PAC1 p157] *"...were prepared as each individual issue was considered and before the Commission determined its position on the merits of the project as a whole ..."* To the extent that the recommendations convey the minimum requirements or limitations deemed necessary to deal with the discrete impacts, the Society will comment on aspects which seem to be significant and, perhaps in any report by the Department of Planning and Infrastructure (DoPI), merit setting the bar higher.

The layout of the ensuing sections has been dictated by the order of recommendations in PAC1.

#### 2. Air quality

PAC1 indicates (Executive Summary pii) that *the "...project cannot meet NSW air quality criteria...and is close to the limit at many others. It is therefore at the limit of acceptability for air quality impacts...there is no room for new entrants into the impacted airshed (i.e. no additional impacts can occur); there are potential long-term restrictions on project operations; and further property acquisitions may be necessary. The Commission considers this to be a high-risk situation."*

**2.1 Recommendation 1 [PAC1 p30]:** *The Commission recommends that the emission estimate predictions should be updated and reconfirmed using the most relevant emission variables as recommended by the EPA prior to any determination of the project.*

The Society sees this as a starting point, after which the whole matter of air-quality impacts would need to be reviewed.

A major concern for BMCS is that dispersion modelling predictions, irrespective of whether they happen to be ‘best practice’, effectively constitute a static analysis. The whole approach disregards the fact that individuals differ in their response to dust as a function of age, general health and ‘perception’; and as health is not a constant, it follows that a person may feel perfectly healthy one day, yet may be adversely impacted under the same external conditions a couple of days later. People should not be the guinea-pigs for a system which disregards human variability.

The Society appreciates that the Commission has been guided in this matter by the existing practice in the industry, but this is increasingly being shown to be inadequate. In effect, a rigid system is used to dictate how a body of impacted people **should react** to dust-affected air; the onus is then placed on those whose health is affected **to prove** that reduced air quality caused their problems. This type of approach marked company behaviour in relation to asbestos and mesothelioma, and of course smoking and lung cancer. But how many people had to suffer and die before proof was deemed adequate?

**2.2 Recommendations 2-12 [PAC1 pp36-41]:** these will not be detailed, but they all comprise aspects of dealing with the inadequacies of the current investigation. BMCS will emphasise a few concerns which remain contentious.

- (a) The Society originally expressed concern that the health and environmental risks associated with PM<sub>2.5</sub> particle size were disregarded. PAC1 p33 suggests that (based on advice from NSW Health): PM<sub>10</sub> rather than PM<sub>2.5</sub> is the main concern from open-cut mines; the annual exposure is of particular concern; there is no ‘safe’ level of PM<sub>10</sub> and there is a linear relationship between the increase in PM<sub>10</sub> exposure and increases in mortality and morbidity.

The above seems straightforward, but: (i) although PM<sub>10</sub> may be the main concern, PM<sub>2.5</sub> is part of that range – its influence on health remains under investigation and should not be disregarded; (ii) any company should be monitoring PM<sub>2.5</sub> data as a basis for further research – normally, the finer the particle, the more likely it is to get into the respiration system and trigger problems; and (iii) why should companies be allowed to damage health, rather than prove that their activities are non-injurious? The approach whereby labour and small communities were exploited and then abandoned when too sick to work is surely a left-over from the Victorian period.

- (b) BMCS previously drew attention to cumulative impacts and also the dispersion of fine dust as a function of the prevailing wind directions. Thus: *“The emphasis on the wind directions which help Coalpac to argue against cumulative impacts from other collieries to the south, also have other implications as the principal wind directions are from the SW and NE according to the time of year (S2G.4 pp12-17): Portland lies about 6 km to the SW and the Wolgan Valley and the Emirates Resort is about 15 km NE. Apart from coating the BBSF with dust, strong winds will carry very fine particulates to the washing lines of Portland and even the guests at the Resort might wake up to a fine-dust haze.”*

PAC1 pp34-35 addresses the nature of cumulative impacts and concludes: *‘While it may not be possible to predict with certainty the cumulative impact of future proposed mines... approval of the Coalpac Project could result in limitations to future proposed mining related developments because of the limited capacity of the airshed to accommodate additional particulate emissions within the acceptable air quality criteria.’* The Society welcomes this and the finding on PAC1 p41 (that cumulative impacts from other projects have not been assessed) because, should the CCP be approved (even in a ‘reduced’ form), the flood gates to a range of developments will be opened – and certainly not to the benefit of the air quality and quality-of-life of residents in the region.

This matter is again well-covered in PAC1 Executive Summary p1v which states: *“The Commission strongly recommends that the Department consider the implications of all existing and proposed*

*mines in this airshed with a view to making considered recommendations to the Determining Authority that ensure air quality impacts remain compatible with sound long-term health and amenity outcomes for the residents.”* The Society wholeheartedly endorses this recommendation to DoPI.

- (c) The Society remains concerned that Recommendation 5 [PAC1 p39] is less than rigorous in terms of protecting Cullen Bullen School and Village. It should be totally unacceptable for dust-generating activities to take place within 1000 m of the School and Village. This is exacerbated by the prevailing wind being from the NE at certain times of the year. A much larger buffer (such as that advocated by the Nationals) should be mandated.

### **3. Noise pollution including blasting**

PAC1 Executive Summary pp ii and iii emphasises that the CCP cannot meet the accepted NSW noise-criteria at all residences and, in terms of the modelling, suggests that there is no room for error in either the predictions or in operation of the controls. Similar statements are made in relation to failing to meet the blasting impact guidelines at some locations without a significant increase in the number of blasts above the national criteria for blast frequency. BMCS endorses these concerns.

#### **3.1 Recommendation 13 [PAC1 p44]:** *The Commission recommends the proposed review of the Industrial Noise Policy include a review of the minimum default background noise level of 30dBA.*

BMCS previously emphasised that it seemed totally irrational for the noise-level amenity of a rural community to be set significantly higher than the existing (so-called background) noise profile. The Commission [PAC1 p44] similarly found that for a population in rural residential settings the current practice of setting the minimum background level at 30dBA is inequitable.

The Society welcomes this recommendation, but wishes to add that many of the so-called policies and procedures adopted to evaluate impacts such as air quality and noise were devised by government departments usually in consultation with companies and their consultants. Input was not usually sought from the affected communities or from environmental groups. This is also why the focus is typically on modelling rather than behavioural science and human variability.

#### **3.2 Recommendation 14 [PAC1 p46]:** *The Commission recommends the cumulative noise, including the project and ambient noise, at the Cullen Bullen school should not exceed 45 LAeq(1hr) at any time during a school day.*

The Commission noted that the CCP did not deal with the cumulative noise level outside the Cullen Bullen school, whereas this is the main determinant of what the inside noise level will be. BMCS suggests that this also applies to households.

The Society (in its submission opposing the CCP) emphasised the limitations of modelling noise-distribution and portraying it in terms of critical contours. The contours are artificial constructs – noise does penetrate them! The Society also noted that differing types of house-construction certainly influences the capacity to reduce noise, the fact that people are not static relative to noise contours, and the role of the variable response to noise between humans and in an individual on a day-to-day basis. All of these aspects should receive more thorough consideration if noise-risks are to be re-examined.

A further matter requiring consideration is a proper understanding of the nature of cumulative noise impacts. Cumulative impacts are more than those arising solely from compounding impacts at a given time. They also arise from extending the time over which a particular level of noise continues, or increasing the number of times a given noise-level is attained within a given period.

The Society contends that if modelling is used as the principle criterion of noise impacts, allowances must be factored in for the things which are omitted.

**3.3 Recommendations 15-28 [PAC1 pp 48-57]:** These recommendations relate to detailed operational practices and negotiations between the company and householders. BMCS supports them as minimum requirements and as a much-needed empowerment of individuals effectively forced to sell their homes.

**3.4 Recommendations 29-33 [PAC1 pp 57-58]:** These recommendations principally relate to the notion of a real time noise management system (RTNMS). In general, the Society is supportive, but wishes the following concerns to be noted.

- (a) Recommendation 29 deals with annual reporting of exceedances. BMCS believes that exceedances have already adversely impacted residents and others. Three things are important: (i) annual reporting is totally inadequate – by the time the report comes out and anyone has the chance to evaluate it, the lag time could be as much as 18 months, so if adequate remedial steps have not been taken, the company gets away with ‘murder’; (ii) why did the exceedances take place and what action is being implemented to ensure that there is no repetition – this effectively refers back to item(i); and (iii) what penalties will be applied? Small financial penalties have negligible deterrence value, so the Society believes that for each exceedance the company must directly compensate those affected, and an equivalent total sum be committed to pertinent research.
- (b) Recommendations 30-33 show that the Commission is less than convinced of the efficacy of the RTNMS approach. The Society believes that uncertainty is justified. Without adequate resources to ‘police’ the RTNMS process, it largely becomes an exercise in probably toothless self-monitored paper-pushing.

**3.5 Infrasound:** the EA provided no information on this and the PAC1 report has therefore ignored it. However, none of the submissions to the Commission, or in response to the EA raised this aspect of ‘noise/vibration’.

Infrasound is becoming an increasingly contentious issue. There is a substantial amount of anecdotal evidence<sup>1</sup> and some scientific support for the health and structural implications of very low frequency noise/subsonic vibrations<sup>2</sup>. In view of the dimension and complexity of mining machinery and transport options associated with the CCP, the Society believes that the DoPI should demonstrate an awareness of the problem within the Director-General’s Report.

**3.5 Recommendations 34, 37 and 40 [PAC1 pp62 and 66]:** This is concerned with blasting and the impacts on housing and aboriginal heritage.

The Society has previously expressed concerns about interpreting statistical data, particularly in the context of the variable strength likely for some of the dwellings, and the perception of blast in terms of human variability – one size does not fit all! These issues are largely unaddressed by the Commission, although it notes the discrepancy between the performance claimed for Invincible Colliery and Cullen Valley Mine and submissions by some local residents [PAC1 p61].

BMCS supports the finding of the Commission in relation to aboriginal heritage (Recommendation 34) and the imposition of a negligible mining-induced damage criterion for RCK2-10 [PAC1 p62].

BMCS similarly supports the concerns embodied in Recommendations 37 and 40 [PAC1 P66]. It is clear that residents are ‘between a rock and a hard place’ – either they have relatively few blasts but risk exceedances, or they have numerous lower risk blasts! This amounts to a gamble between two choices where each equates with the short straw!

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<sup>1</sup> See Sharyn Monroe’s book, “Rich Land Wasteland”, <http://richlandwasteland.com/about-the-book/>

<sup>2</sup> Googling infrasound is instructive. Some of the sites of interest are: <http://www.ga.gov.au/hazards/our-techniques/monitoring-data/infrasound.html>; <http://controlgeek.net/blog/2010/11/1/gravesend-inn-frasound-subsonic-show-business.html>; <http://www.lowertheboom.org/trice/infrasound.htm>; <http://bst.sagepub.com/content/31/4/296.short>

**3.6 Recommendations 38 and 39 [PAC1 p66]:** The Commission insists that there should be no impacts to the pagodas and cliff lines from blasting, and considers that a 50m buffer will not guarantee this outcome. Instead, it advocates an absolute buffer of 100m and a provisional buffer of 300m unless an independent geotechnical surveyor has certified that the proposed blasting will have no impact on the pagodas or cliff lines.

The Society considers that the above amounts to an **absolute** buffer of 300m, because only a courageous or foolhardy geotechnical surveyor would give such a guarantee.

BMCS previously (and still does) argue for a 310m buffer or step-back between the pagodas and cliff lines and the open-cut highwall. The basis for this is simple. The highwall miner can extend a maximum of 300m from the highwall, so to avoid undermining the pagodas the **minimum buffer** should be 300m. However, the pagodas and cliff-forming Triassic sandstones are partially buttressed by scree and talus aprons extending over the coal-bearing Permian sequence. Because highwall mining of the Katoomba coal seam could destabilise the buttressing role of the scree/talus, the buffer was increased to 310 m, thereby enhancing the level of protection.

The Commission, in referring to the 310m recommendation by BMCS, noted [PAC1 p65]: “*BMCS acknowledged it does not have geotechnical expertise but it considers 310m a conservative recommendation based on information in the EA and supporting documents.*” **As this reference to lack of expertise is potentially misleading and might detract from the value of the recommendation, additional information is provided<sup>3</sup>.**

Recommendation 39 advocates a strict and extensive monitoring program to detect any damage to pagodas arising from blasting **and other mining** processes should the CCP be approved, **irrespective of the extent of the buffer**. The Society supports this as modified by the parts in ‘bold’ font.

#### **4. Biodiversity - Pagodas**

PAC1 Executive Summary piii states (as abridged): “*Biodiversity impacts are divided into those affecting the pagoda landform and those affecting other aspects of the ecology of the project area...No mining induced damage should be permitted to these features. The Commission recommends that highwall mining in the vicinity of the pagodas be prohibited and that the minimum setback for mitigating blasting risk to the pagodas be increased significantly from the proposed 50m... a setback of 300m would provide 70-75% of the foraging area required and should be adopted as an absolute minimum.*”

Substantial aspects of this have been covered by Dr Haydn Washington of the Colo Committee. The following aspects complement his statements.

**4.1 Recommendation 45 [PAC1 p77]:** “*The Commission recommends that the pagodas and the associated escarpments be considered natural features of special significance and that they be fully protected from any mine-induced impacts.*”

The Society endorses this statement and the implications it has for any full or partial approval of the CCP.

**4.2 Recommendations 46-48 [PAC1 pp84-91]:** Recommendation 45 leads to the detailed assessment of risks in PAC1 Section 6.2.3 and its subsections, on which recommendations 46-48 are based. The Society commends the Commission on its handling of the risks and the available ways of mitigating them.

(a) Recommendation 46 reiterates the Commission’s opposition to highwall mining under the pagodas or escarpments in the project area. BMCS endorses this and again commends the Commission for taking this position.

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<sup>3</sup> *Dr Marshall has a PhD in Structural and Metamorphic Geology with over 40 years’ professional experience in industry and university. This has included lecturing and consulting in Engineering Geology, Rock Mechanics and Soil Mechanics (now collectively termed Geotechnics). He is neither a mining engineer nor a coal geologist, but over the past 10 years since retiring and moving to Leura, he has engaged heavily (through BMCS) with aspects of hydrogeology and coal exploitation.*

- (b) Recommendation 47 states that a minimum setback distance of 300m be maintained from the open-cut highwall to the pagodas and the escarpments to provide adequate protection for threatened species and other fauna using the pagoda habitat.

BMCS notes that OEH recommends a 500m setback as best practice [PAC1 pp88-89] and that at ~300m only 75% of the desired habitat is retained. In such circumstances, the Society believes that a 500m setback should be applied, irrespective of the implications this has for any additional mining envisaged in the CCP. The Society contends that it is pointless legislating at both state and federal levels for the protection of threatened species, and then effectively compromising in the face of expert OEH advice.

- (c) Recommendation 48 is somewhat of a non-sequitur in that it seems to suggest that all the deficiencies identified in PAC1 Section 6.2 be resolved such that the Determining Authority has an unequivocal understanding of what the outcomes will be and the risks associated with them.

The Society suggests that this is not a practicable possibility. Even with the full cooperation of its expert consultants, the CCP has failed to provide satisfactory information regarding the consequences of its proposed actions. From the viewpoint of the DoPI, the remaining available options would seem to be to: (i) reject the proposal as it stands and return it yet again to Coalpac so that 'compliant consultants' can couch their levels of uncertainty in terms of 'absolutes' – this would certainly require major research, or perhaps an assessment of their professional standards; (ii) devise a report which would stipulate a set of rigorous conditions governing the concerns which Coalpac must satisfy before commencing any operations related to the CCP; or (iii) acknowledge that exploiting this region in the way proposed under the CCP is not acceptable on environmental, social and indigenous and non-indigenous heritage grounds, and arguably in terms of the CCP's destruction of the region's sustainable post-mining future.

## 5. Biodiversity – terrestrial ecology

PAC1, Executive Summary, piii states:

*“The project will clear 957.98ha of vegetation – mostly in Ben Bullen State Forest. There is sufficient doubt over the accuracy of the biodiversity assessment for there to be uncertainty about levels of impact, the significance of impacts and the suitability of proposed offsets. Edge effects, have not generally been factored into the impacts. Given the very fragmented nature of the project site this will mean that the real impact of the project on native vegetation will be much greater than the area to be directly impacted by clearing.”*

*“The project area contains numerous species listed under the State and Commonwealth threatened species legislation...the real value of the area from a biodiversity perspective is that it contains a wide diversity of vegetation associations and a very high species richness.”*

*“The Proponent has placed substantial emphasis on rehabilitation as a mitigation strategy for impacts on biodiversity. There is considerable uncertainty about the validity of the claims.”*

The Society welcomes this assessment in view of the extensive work carried out by the Lithgow Environment Group (LEG) in establishing the deficiencies of the investigation as reported in the EA.

Submissions pertinent to this portion of PAC1 have been addressed by the Colo Committee and will assuredly be examined by LEG.

BMCS will restrict its comments to those items which are of special concern.

### 5.1 Recommendation 49 [PAC1 p93]: *The Commission recommends that concerns about the adequacy of the flora assessment and identification of the vegetation associations present in the project area be resolved to the satisfaction of OEH prior to approval of any extension to open-cut mining in the project area and prior to any assessment of adequacy or otherwise of the biodiversity offset package.*

The Society endorses the thrust of this recommendation, but is concerned that it again opens the door for yet another study [cf. Section 4.2(c) above]. The company has been cognizant of the deficiencies of its investigations since it submitted its Preliminary EA in late 2010. It has employed consultants to improve

the quality of its investigation but the results are dismal. The options available to DoPI are similar to those in Section 4.2(c) above. However, the Society emphasises that no amount of investigation will reduce the scale of the damage to be wrought by clearing this acreage of Ben Bullen State Forest – in fact, a thorough investigation on top of that done by LEG can only add weight to the view that sanctioning such destruction would be unconscionable.

**5.2 Recommendation 52 [PAC1 p97]:** requires that the cumulative impacts on the biodiversity values of this project and the proposed Pine Dale Stage 2 Extension be considered before any assessment of this project is finalised.

The Society (in its submission opposing the CCP) emphasised that the CCP showed little understanding of the concept of cumulative impacts. Most importantly, there was a disregard of their synergistic nature – that is, the addition of a new mine or the expansion of an existing mine in a region disproportionately enhances adverse impacts such that the cumulative effect exceeds the sum of its parts.

The Society believes that the impacts of open-cut coal developments along the western escarpment of the Blue Mountains should be treated as a cumulative issue. The alternative whereby each development is treated as a discrete project comprises environmental desecration by a ‘thousand cuts’. The Society has made this point to DoPI in several submissions.

BMCS understands that Pine Dale has a Stage 3 which it will claim (as initially for Stage 1, and subsequently for Stage 2) does not depend on approval of the preceding stage(s) and should be dealt with in isolation. Yet Stage 2 is awaiting the outcome of the CCP determination and Stage 3 will be put forward once Stage 2 is over the line. The principal point is that the CCP is seen as a test case on the basis that, should it be approved *in toto* or in part, the stable door will be open. For a meaningful cumulative approach, all the ‘possibilities’ need to be considered.

**5.3 Recommendations 53 and 54 [PAC1 p98 and 101]:** in **R53** the Commission puts forward three principles which it feels should be accepted as pertinent to assessing the CCP’s biodiversity impacts. They are: (i) rehabilitation cannot restore the current habitat and its ecological balance; (ii) rehabilitation to mature woodland has yet to be proved in NSW; and (iii) the CCP’s impacts on biodiversity are incompatible with the Gardens of Stone Stage 2 (GoS2) reservation. In **R54**, the Commission “...recommends that... rehabilitation not be given credence as a mitigation strategy in the assessment.”

The Society has, in *Appendix I* of its submission opposing the EA, examined the deficiencies of so-called rehabilitation and comprehensively rejected its viability. The Commission should be congratulated for rejecting the process which the mining industry keeps trotting out as meaningful rehabilitation. It can never be more than a cosmetic veneer; as with an ageing actor, make-up may mask the underlying damage, but never restore the youthful visage!

BMCS is a strong advocate of GoS2 reservation. Coalpac, Pine Dale and any other open-cut mine hoping to encroach on this magnificent region is proposing environmental vandalism. The Commission correctly recognises that the CCP and GoS2 reservation are incompatible. It is time for the Planning Minister to recognise that some environmentally sensitive regions must be protected against high-impact mining.

**5.4 Recommendation 55 [PAC1 p104]:** *The Commission recommends that, until the baseline biodiversity characteristics of the site have been resolved to the satisfaction of OEHL, assessment of the adequacy or otherwise of the revised offset package should not proceed. The Commission also recommends that particular attention be given in the assessment to the essential nature of the trade-off being proposed, i.e. it is a proposal designed to exchange a number of fragmented areas that generally require extensive rehabilitation work and are currently not considered suitable for reservation, for a single area of high quality habitat that adjoins other areas of high quality habitat and is already proposed for reservation.*

The Society appreciates the Commission’s concern about the inadequate baseline biodiversity characteristics of the site. This is an inevitable flow-on from the deficient investigation of those characteristics by the company’s consultants. Nevertheless, the tireless work by the LEG has done much to improve knowledge of the flora in the region. Without this work, the consultant’s report would most

probably have been taken at face value<sup>4</sup>. The Society now believes that, with the additional material provided by LEG, OEH should be (and is) in a far better position to recognise the value of the site's biodiversity, and thereby identify the extreme limitations of the offset package.

The Society also recognises the Commission's reservations about the nature of the trade-off. Does it involve swapping like for like? Clearly it does not (see PAC1 p104, dot-points 1 and 3). This is a common failing.<sup>5</sup>

Once again, the Society challenges the whole concept of Biodiversity Offset Packages (BOP). A BOP does nothing to preserve the environmental values of the area to be exploited – yet OEH, by being required to negotiate with proponents, is effectively facilitating the destruction of the threatened species and communities which it has a legislated requirement to protect. Species and communities are listed as threatened to prevent further declines in the populations and/or the type of habitat. Destroying threatened species and communities in exchange for other areas is farcical – if the other areas have those species and communities, their existence would have been part of the assessment which led to the listing as threatened, so there is clearly a net loss – if the other areas lack those species and communities the outcome is even more bereft of value. BOPs are ethically, morally and scientifically bankrupt.

## 6. Surface Water, water quality, groundwater, monitoring and AMD

PAC1, Executive Summary, piv: *“Potential impacts on water resources were identified for both surface waters and groundwater, but the Commission considers that these could be managed with appropriate conditions.”*

- 6.1 Surface water:** the Society notes that there is no formal recommendation with respect to surface water, perhaps reflecting the above quotation. This is disappointing. PAC1 p105 notes that *“...flows in Cullen and Dulhuntys Creeks will reduce for the first two years and then increase above the current flow rates as rehabilitation progresses. Flows in Jews Creek will be reduced by two percent.”* This statement is only as good as the rehabilitation, yet the Commission recognises elsewhere (p98) that rehabilitation is unable to re-establish the original landform and hydrologic regime.

The Society reiterates its concern that creek-flows will be reduced because of the ineffectiveness or rehabilitation in re-creating hydrogeology, the superficiality of the comment that catchment areas will progressively increase as a result of rehabilitation, and the fact that surface waters will be impounded under the Surface Water management System.

BMCS believes that a recommendation relative to these matters would be appropriate.

- 6.2 Water quality – recommendations 56-57 [PAC1 p107]:** the Commission is congratulated on obtaining a written commitment to not renew LDP001; BMCS endorses both recommendations.
- 6.3 Groundwater – recommendations 58-59 [PAC1 p108]:** the Society endorses recommendation 58 – the reliability and effectiveness of the coal seam buffers remain a concern.

Although also endorsing recommendation 59, BMCS believes that monitoring and possible compensation are poor alternatives to avoidance. As noted in 6.1, impacts on the quantity of surface water are inevitable, so as surface water and groundwater are linked within the near-surface hydrologic regime, there is an inevitable impact on unconfined surface aquifers. Furthermore, in the absence of proof that there is no vertical connectivity between the surface and deeper confined aquifers, the possibility of an impact on bores remains.

- 6.4 Monitoring – recommendations 60-63 [PAC1 p109]:** the Society congratulates the Commission in recommending more rigorous testing regimes. It is of fundamental importance that discharged waters

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<sup>4</sup> As DoPI is aware from meetings with several of its staff and in written submissions, this is not the first time that the Society has been intensely concerned about the scientific merit and integrity (or lack thereof) of consultant's reports.

<sup>5</sup> See for example *“When is an environmental offset not an environmental offset? When they are not commensurate!”* <http://www.curtisnra.com.au/?p=582#more-582>

match the quality of receiving waters. The Society believes that whereas companies bemoan the costs of monitoring and compliance and have, in the past, received a sympathetic response from the EPA, doing the minimum and playing catch-up should enough fuss be made is an unacceptable practice.

BMCS emphasises that imposition of inadequate limits on mine-water discharges is a major cause of pollution. Only now is the EPA starting to be more proactive, and yet the EPA still makes comments about minor exceedances and being satisfied with a company's performance (e.g. PAC1 p106). The bar is set too low and the problem is exacerbated by treating exceedances sympathetically.

**6.5 AMD – recommendations 64-65 [PAC1 p110]:** these actions are endorsed by BMCS – it is important the AMD is taken seriously by the industry.

## 7. Economic issues

According to PAC1 p138, the: *“...Proponent’s justification for the project has been the subject of numerous criticisms in written submissions and in presentations at the public hearings. These criticisms have covered a wide spectrum: from rejection of the alienation of public land for private profit, to specific concerns with aspects of the economic analysis, to rejection of the mining of coal to fuel coal-fired power stations.”*

*“The Commission does not propose to deal in detail with all of these criticisms in this report. Rather, the focus will be on the economic analysis supporting the project and on the claims concerning impacts on wholesale and retail electricity prices in NSW.”*

Despite the above statements, the Commission should be congratulated on a substantial analysis of this complex matter, because it is one in which an author sets out a methodology which (unsurprisingly) provides the required outcome. Of particular note are pp138-140, including the principle findings (Section 8.6.2.1). The Society wishes to highlight the following statements with which it most certainly concurs: *“Although the economic analysis may have been conducted within the applicable guidelines and bounds of economic theory, the facts of this particular project are sufficiently unusual to test the limits of the approach...the Commission notes that in areas that it has examined for other purposes ...the positions taken in the economic analysis do not appear robust... An alternative to further review is to adjust the weight to be given to the analysis in the assessment process... the unresolved contested nature of the approach to, and results of, the analysis mean that it can be accorded little weight...the Commission considers that, contrary to the views expressed by the peer reviewer employed by the Proponent, key results of the analysis... may not present a sufficiently reliable platform for decision-making.”*

The Society has previously argued that in order to properly analyse any economic case, where an obviously profitable commodity with a local market is set against environmental, social and heritage values, there is need for a different approach to ‘pricing’ the values. The Commission would seem to acknowledge this concern in terms of the weight it is prepared to assign to the ‘classical’ economic analysis.

In concluding this section, BMCS draws attention to the fact that discontent over the type of economic evaluation presented by Coalpac is not one-off<sup>6</sup>.

## 8. Extraction of sand

In Pac1 p148 the Commission suggests that *“...there are a number of issues to be resolved with this proposal and very little information available to assist with the resolution.”* Issues include management of waste water, the impact of road transport versus the possibility of rail transport, and defining the potential markets. A specific recommendation is not made.

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<sup>6</sup> For example, see <http://www.curtisnra.com.au/?p=530>, “Professor Bennett and Rob Gillespie LOST in their paradigms??”; also <http://www.curtisnra.com.au/wp-content/uploads/2011/09/Curtis-ECOLEC1967.pdf>, “Valuing Ecosystem Goods & Services”; and Curtis, Ian Arthur (2003) Valuing ecosystem services in a green economy. PhD thesis, James Cook University, <http://eprints.jcu.edu.au/76/>

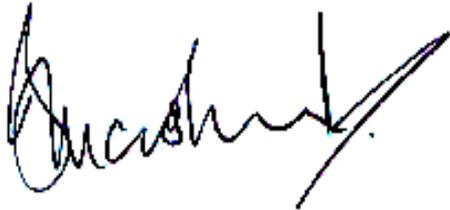
The Society views the sand-mining proposal as a nonsensical piece of mischief put in by greedy people in an attempt to gouge out every last dollar, irrespective of the consequences. In addition to the identified AMD problems, the EA provides little detail and (despite the data in the Economic Analysis) presents little in terms of how the sand would be trucked to Sydney and actually make a profit. Even the existing sand deposits on Newnes Plateau (significantly closer to Sydney) are marginal and Sydney Construction Materials approval to exploit sand and kaolin at Newnes Junction (with transport by rail) has made little progress over the past 5+ years.

The Society is most concerned about how the company will rehabilitate an area where the coal seams have been removed and the Marangaroo sandstone has been extracted. There is likely to be a big hole with an inadequate quantity of fill.

## 9. Concluding comments

There is no need for a comprehensive set of conclusions, as the Society has already stated in Section 1 that it totally supports the Commissions principal finding **that the CCP should not be approved.**

The remaining sections of this document deal with many of the Commission's recommendations (though some will be covered by other organizations and individuals). The Society supports the majority of the recommendations which deal with concerns as discrete entities (see Section 1), although in a few cases it feels that there is need to lift the bar. The Society acknowledges the Commission's view that the recommendations are a response to the Minister's request to recommend appropriate measures to avoid, minimise and/or offset these impacts, and endorses the statement **that they should not be interpreted as modifying the Commission's conclusion and recommendation on the project as a whole.**

A handwritten signature in black ink, appearing to read 'Brian Marshall', with a long, sweeping flourish extending to the right.

*Dr Brian Marshall,  
For the Management Committee*