

APPENDIX J
RESPONSE TO PAC REVIEW
REPORT RECOMMENDATIONS

1 INTRODUCTION

Table 1 below lists each of the 83 recommendations made in the Planning and Assessment Commission Review Report of the Coalpac Consolidation Project (PAC Review Report) and indicates Coalpac's response to each recommendation.

Each row in **Table 1** has been colour coded for ease of reference to correspond with Coalpac's response to each PAC recommendation. The colour coding applicable to **Table 1** is as follows (indicates the number applicable to that category):

 Adopted (57) (+2 no longer relevant)

 Adopted with Qualification (10)

 Not Adopted (3)

 Assessment Policy Issue (11)

Table 1 also indicates where Coalpac has provided revised Statement of Commitments (SoC) in response to the PAC Review Report recommendations.

2 RESPONSE TO PAC REVIEW REPORT RECOMMENDATIONS

Table 1
PAC Review Report Recommendations Response

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
1.	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.	Adopted	No
2.	The Commission recommends the current acquisition criterion for PM10s, 150 µg/m3 24-hour average from all sources, should be reviewed from a health perspective given the NEPC criteria of 50 µg/m3 and more recent advice from NSW Health about mortality and morbidity impacts. This should be done in consultation with NSW Health and the EPA prior to any final approval for the Coalpac project.	Assessment Policy Issue	No
3.	The Commission recommends the NSW long-term acquisition criterion for annual average particulate matter less than 10 microns (PM10) of 30 µg/m3 should be reviewed against the WHO goal of 20 µg/m3 for this parameter.	Assessment Policy Issue	No
4.	The Commission recommends that any approval for the project should include the relevant condition from the Ashton South East Open Cut Coal Project determination relating to air quality exceedances at mine owned residences. These conditions relate to adequate notification of the tenant, termination of the tenancy without penalty, air mitigation measures and ongoing monitoring information and notification of the owners of the land with an option for acquisition.	Adopted	Yes
5.	The Commission recommends that blasting should only be conducted when the wind will transport fumes away from the Cullen Bullen school, Cullen Bullen village and any residences.	Adopted	Yes
6.	The Commission recommends the proposed Air Quality Management Plan (AQMP) should include key performance indicators and outcomes across the full range of potential sources of air emissions. The AQMP should be developed in consultation with the EPA and be approved by the Director-General of the Department prior to commencement of works associated with the development. Specific attention should be given to the performance outcomes to achieve the air quality criteria.	Adopted	Yes
7.	The Commission recommends that the total area of active mining and unrehabilitated dumps should not exceed 180 hectares at any one time.	Adopted	Yes
8.	The Commission recommends that operational conditions are sufficiently rigorous to ensure the Real Time Air Quality Management System is used predictively and that failure to do this amounts to non-compliance.	Adopted	Yes
9.	The Commission recommends that auditing requirements are imposed to assess compliance and to assess whether additional management responses are required. It is also necessary to ensure long-term commitment to effective use of the Real Time Air Quality Management System.	Adopted	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
10.	The Commission recommends that shutting down of operations should be adopted as a management response in this airshed to ensure the air quality criteria are met.	Adopted	Yes
11.	The Commission recommends restriction of hours as well as production limits to be included if the Real Time Air Quality Management System doesn't deliver all required outcomes.	Adopted	Yes
12.	The Commission recommends that an evaluation should be conducted of Real Time Air Quality Management Systems (RTAQMS), including their effectiveness in controlling emissions from open-cut mines. This should include investigation of the relationship between suppression of peak emission levels and the effect (if any) on annual average emission levels from open-cut mines in NSW.	Assessment Policy Issue	No
13.	The Commission recommends the proposed review of the Industrial Noise Policy include a review of the minimum default background noise level of 30dBA.	Assessment Policy Issue	No
14.	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.	Adopted with Qualification	No
15.	The Commission recommends that the proposed exemptions for the highway miner from some of the management zone recommendations should be justified before any final determination of the project.	Adopted	No
16.	The Commission recommends the Proponent should stop or modify operations under certain weather conditions where noise criteria are predicted to be exceeded and should stop noise generating operations if acceptable noise criteria are exceeded. In addition the Proponent's performance should also be independently audited.	Adopted	Yes
17.	The Commission recommends that once the conveyor is completed, road haulage of coal to MPPS should only occur for a minimal period in emergency situations where there are no other reasonable options and only with written approval from the Department. Haulage should be restricted to 0700 to 2100, and none on Sundays or Public Holidays.	Adopted with Qualification	Yes
18.	The Commission recommends that road haulage of export coal to Port Kembla should not be permitted once the rail facility has been constructed.	Adopted	Yes
19.	The Commission recommends that road haulage of export coal to Port Kembla before the rail facility is operational should be not be permitted without further assessment of the traffic impacts.	Adopted	Yes
20.	The Commission recommends the Proponent should cooperate with rail managers and train operators, in consultation with the EPA, to develop a regional train noise study.	Adopted	Yes
21.	The Commission recommends operational noise from the rail loading facility should not cause or contribute to exceedance of the relevant noise criteria at any time.	Adopted	Yes
22.	The Commission recommends the Proponent should demonstrate compliance with the predicted noise levels from the rail loading facility within six months of its commencement of operation.	Adopted	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
23.	The Commission recommends if evening or night time noise criteria are exceeded then loading should not occur in evenings or at night until rectification is complete and the noise criteria can be met.	Adopted	Yes
24.	The Commission recommends all new mining equipment should be independently tested by an acoustic engineer against predicted sound power levels prior to delivery and should not be put into operation until it meets the predicted level.	Adopted	Yes
25.	The Commission recommends that operating hours should be limited to the following times until all noise mitigation measures have been implemented and demonstrated to be effective and certified by an independent acoustic expert that they meet the noise criteria. These noise mitigation measures include; the noise sound suppression on mobile plant and stationary equipment, earthen bund walls, conveyor, bridge over the Castlereagh Highway, location of infrastructure within the project footprint and the real time monitoring and management system. • Monday to Saturday ➤ 7.00 am to 6.00 pm – for mining coal processing activities; ➤ 7.00 am to 9.30 pm – for haulage and transportation from Invincible Colliery exit; ➤ 7.00 am to 5.30 pm Monday to Friday and 7.00 am to 5.00 pm on no more than 30 Saturdays annually – Coal haulage from Cullen Valley Mine, Hillcroft and East Tyldesley. ➤ 10.00 pm to 7.00 am – non-audible equipment maintenance activities. ➤ 9.00 am to 5.00 pm - blasting. • Sunday ➤ 8.00 am to 6.00 pm – for mining and all associated activities; ➤ 6.00 pm to 7.00 am – non-audible equipment maintenance activities. ➤ No blasting • And at no time on public holidays. Note: these times may be further restricted by specific recommendations, for example near the Cullen Bullen cemetery.	Adopted with Qualification	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
26.	The Commission recommends that operating hours should be limited to the following times after all noise mitigation measures have been implemented and certified by an independent acoustic expert that they meet the predicted noise outcomes. These noise mitigation measures include; the noise sound suppression on mobile plant and stationary equipment, earthen bund walls, conveyor, bridge over the Castlereagh Highway, location of infrastructure within the project footprint and the real time monitoring and management system. - Monday to Saturday 24-hours – for mining (other than blasting) and coal processing; 7.00 am to 9.30 pm – for haulage and transportation from Invincible Colliery exit; - Coal haulage from Cullen Valley Mine, Hillcroft and East Tydesley only in emergencies with written approval from DOPI. 10.00 pm to 7.00 am – non-audible equipment maintenance activities. 9.00 am to 5.00 pm - blasting. - Sunday 24-hours – for mining (other than blasting) and coal processing; - No road haulage; - No blasting - And at no time on public holidays. Notes: - Temporary night time operation should be permitted only after an initial compliance certification following three months operation. This should be repeated and reconfirmed following twelve months of operation before longer term night time operation is permitted. - Where mining is carried out in different sectors and some sectors show compliance and others show non compliance then the above night operating times should be permitted for those sectors only where there is full compliance with the noise criteria. - These times may be further restricted by specific recommendations, for example the cemetery.	Adopted with Qualification	Yes
27.	The Commission recommends a NSW policy for acquisition of properties subjected to excessive noise or air emissions by new developments should be completed as soon as practical.	Assessment Policy Issue	No
28.	The Commission recommends the Proponent should be required to implement negotiated agreements, additional at-receiver noise mitigation measures or property acquisition consistent with the criteria in Table 5-11.	Adopted	Yes
29.	The Commission recommends the responses to real time monitoring that show an exceedance or potential exceedance of noise requirements should be included in an annual report made available to Council, relevant agencies and the public.	Adopted with Qualification	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
30.	The Commission recommends there should be no increase in production until the Real Time Noise Management System is established and demonstrated to be operating effectively under all weather conditions, including temperature inversions.	Adopted	Yes
31.	The Commission recommends a comprehensive evaluation of the effectiveness of real time monitoring and proactive and reactive management systems used for air and noise management in mines in NSW.	Assessment Policy Issue	No
32.	The Commission recommends an independent audit should be conducted at the end of 12 months and then every three years to investigate and report on the effectiveness of the Real Time Noise Management System in maintaining noise levels within the relevant criteria. This should include measures taken in all meteorological conditions. The audit should report on any additional measures available to mitigate impacts.	Adopted	Yes
33.	The Commission recommends any approval for the project should include a condition that the mining only proceed in stages until it demonstrates compliance with the noise criteria.	Adopted	Yes
34.	The Commission recommends ground vibration criteria for Aboriginal heritage rock shelters should not be greater than the criteria set out by the Proponent, that is half the recommended ground vibration criteria and 3dB below the overpressure criteria. The Blast Management Plan should demonstrate how blasting can occur with negligible mining-induced damage of the Aboriginal rock shelter RCK2-10.	Adopted	Yes
35.	The Commission recommends no mining-induced damage is to be caused to any grave or gravestones at the Cullen Bullen cemetery. The Blast Management Plan must demonstrate how this would be achieved.	Adopted	Yes
36.	The Commission recommends no mining or coal haulage occurs within a 1.5km radius of the Cullen Bullen cemetery on any Saturday, Sunday or Public Holiday.	Not Adopted	Yes
37.	The Commission recommends that the Proponent's approach to controlling noise and vibration from blasting at residences by reducing the MIC and increasing the number of blasts to be rejected as imposing an unreasonable impact on the residents. Any exceedence of the ANZEC guideline for blasting frequency should be strictly limited, particularly when the expected noise or vibration levels are likely to be at or close to the limits.	Adopted	Yes
38.	The Commission recommends that there should be no impacts to the pagodas and cliff lines from blasting. The Commission does not accept that a 50m buffer will guarantee this outcome, but is unable to determine a satisfactory buffer distance from the available information. To accommodate this situation the Commission recommends that no blasting occur within 300m of the pagodas or cliff lines without an independent geotechnical surveyor certifying that the blasting proposed will not cause impact to the pagodas or cliff lines. In any event a minimum stand-off distance of 100m must be maintained for blasting from all pagodas, cliffs and other rocky outcrops.	Not Adopted	Yes
39.	The Commission recommends that strict monitoring requirements which allow detection of any blasting-induced impacts to pagodas, cliff lines or rocky outcrops be required in the event that the project proceeds.	Adopted	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
40.	The Commission recommends that the Department review the mechanism used to assess complaints of blast damage to private property with a view to providing the residents with confidence that their claims are being assessed by a qualified person who is transparently independent from the Proponent.	Assessment Policy Issue	No
41.	The Commission recommends that the Proponent should provide the Department with the construction schedule for the noise and visual mitigation bunds as well as specifications and other technical details prior to construction.	Adopted	Yes
42.	The Commission recommends that the onsite treatments outlined in the EA, Volume 1, Section 8, pp.151-152 be developed as conditions of approval.	Adopted	No
43.	The Commission recommends that the Proponent be required to report to the Department and the local community on a regular basis on the implementation of rehabilitation and mitigation measures, with the frequency and the extent of reporting to be determined by the Department.	Adopted	Yes
44.	The Commission recommends that the construction hours of operation should form a condition of any approval, in part to alleviate light pollution impacts on residents and other users of the area.	Adopted	Yes
45.	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.	Adopted	Yes
46.	The Commission recommends that highwall mining not be permitted under the pagodas or escarpments in the project area.	Adopted with Qualification	Yes
47.	The Commission recommends that to provide adequate protection for threatened species and other fauna that use the pagoda landform, a minimum setback distance of 300m be maintained from the open-cut highwall to the pagodas and the escarpments.	Not Adopted	No
48.	The Commission recommends that, given the significance and sensitivity of the pagodas and the pagoda landform environment, before the project is submitted for determination the uncertainties in the Proponent's supporting information identified in section 6.2 are resolved and the caveats and qualifications on the various commitments are removed so that the Determining Authority has an unequivocal understanding of what the outcomes will be and the risks associated with them.	Adopted with Qualification	No
49.	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.	Adopted with Qualification	Yes
50.	The Commission recommends that, given the acknowledged high quality and species richness of the native vegetation present in the project area, the assessment focus should be on the overall quality of the habitat under threat and its biodiversity value rather than just on the threatened species component which is the focus of the EA.	Adopted	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
51.	The Commission recommends that calculation of edge effects be required to the satisfaction of OEH before the project is submitted for determination.	Adopted with Qualification	No
52.	The Commission recommends that the cumulative impacts on the biodiversity values of Ben Bullen State Forest and the region of this project, together with the proposed Pine Dale Stage 2 Extension, be considered before any assessment of this project is finalised.	Assessment Policy Issue	No
53.	The Commission recommends that the following three principles be accepted as underpinning assessment of biodiversity impacts for this project: - rehabilitation cannot restore the existing vegetation associations or ecological balance of the area; - rehabilitation to mature woodland is unproven for open-cut mines in NSW; and - the impacts on biodiversity from this project are incompatible with reservation proposals for Gardens of Stone Stage II.	Assessment Policy Issue	No
54.	The Commission recommends that, given the considerable uncertainties concerning the likelihood of rehabilitation on this project area being capable of delivering a satisfactory biodiversity outcome, rehabilitation not be given credence as a mitigation strategy in the assessment.	Assessment Policy Issue	No
55.	The Commission recommends that, until the baseline biodiversity characteristics of the site have been resolved to the satisfaction of OEH, 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.	Assessment Policy Issue	No
56.	The Commission recommends the discharge from Invincible Colliery, Licensed Discharge LDP001, should be discontinued.	Adopted	Yes
57.	The Commission recommends the Water Quality Management Plan should incorporate management of impacts from the construction and operation of the conveyor to the MPPS.	Adopted	Yes
58.	The Commission recommends the Proponent should reassess predicted depressurisation and groundwater inflows, in consultation with NOW to provide a greater level of confidence that problems will not arise with groundwater or surface water resources. If this cannot be achieved because of insufficient monitoring then production should not be increased for two years while additional monitoring and modelling is carried out to confirm the predictions in the EA.	Adopted	Yes
59.	The Commission recommends the Proponent should be required to conduct ongoing monitoring of bores and provide compensation to private bore holders in the event of any water loss.	Adopted	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
60.	The Commission recommends two years of baseline monthly monitoring should be conducted in Cullen and Dulhenty Creeks for the following parameters. - Physical/chemical - pH, temperature, electrical conductivity, turbidity, dissolved oxygen, total - Suspended solids, oil and grease, major cations and anions, and - Dissolved metals - iron, manganese, nickel, cobalt and zinc.	Adopted	Yes
61.	The Commission recommends trigger levels should be developed based on ANZECC guidelines.	Adopted	Yes
62.	The Commission recommends the Proponent should collaborate with other surrounding operations to develop and implement a coordinated monitoring program and report exceedences of trigger levels.	Adopted	Yes
63.	The Commission recommends the predicted changes in weather due to climate change in NSW should be included in the water balance modeling for the life of the project unless it can be demonstrated the modelling to date has been conservative enough to account for this.	Adopted	Yes
64.	The Commission recommends that the acid generating material located at the existing Invincible Colliery Tailings Drying Area should be remediated, in consultation with DRE within three years and in accordance with the approved Rehabilitation Management Plan.	Adopted	Yes
65.	The Commission recommends that all washery rejects are treated as potential acid forming material and managed separately from general overburden emplacement in accordance with the Rehabilitation Management Plan.	Adopted	Yes
66.	The Commission recommends that the Proponent's Plan of Management dated 27 September 2012 forms part of any approval, subject to: - inclusion of monitoring and auditing requirements; - targets such as those set out by Professor Cliff in his report dated 6 December 2012; - odour management controls; - bushfire management controls; and - DRE's approval.	Adopted	Yes
67.	The Commission recommends endorsement of DRE's requirement for extinguishment of all subsurface combustion in overburden emplacement areas and underground mine workings to occur before mining is conducted within 1 km of these areas.	Adopted with Qualification	Yes
68.	The Commission recommends that the concerns about the proposed 13% increase in heavy vehicle movements on the Great Western Highway raised by Blue Mountains City Council and Lithgow City Council be referred to the RMS for advice as part of any further assessment of the project.	Recommendation no longer relevant	No
69.	The Commission recommends that until the conveyor to MPPS is operational, the current truck movement limits are retained.	Adopted	Yes

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
70.	The Commission recommends that during any periods of unavailability of the conveyor to MPPS after it has been commissioned, truck movement to MPPS remain within the current limits.	Adopted	Yes
71.	The Commission recommends that the Proponent satisfies the Department that transport of sand cannot be undertaken by rail in whole or in part.	Recommendation no longer relevant	No
72.	The Commission recommends that no export coal is permitted to be carried by road to Port Kembla without further assessment of the potential traffic impacts.	Adopted	Yes
73.	The Commission recommends that approved hours for the transport of coal and/or sand by road be restricted to between 0700 and 2130 hours Monday to Saturday with no transport on Sundays or Public Holidays.	Adopted	Yes
74.	The Commission recommends that tyre washing is implemented for trucks leaving the project site to travel on public roads.	Adopted	Yes
75.	The Commission recommends that all trucks leaving the project site have their loads covered so as to prevent the spillage of coal and emission of coal dust.	Adopted	Yes
76.	The Commission supports AECOM's recommendation that a detailed assessment of identified rock shelters is required prior to commencement of any mining operations within 500m of each identified rock shelter.	Adopted	Yes
77.	The Commission recommends that Aboriginal rock shelters in the project area should not be exposed to mining-induced impacts that could produce more than negligible consequences for the rock shelters. The Aboriginal Cultural Heritage Plan and the Blast Management Plan must contain measures to ensure that this outcome is achieved. Failure to achieve this outcome should be clearly identified as a breach of the approval and operations in the vicinity should cease until the project is compliant.	Adopted	Yes
78.	The Commission recommends that a monitoring regime is required that establishes the current condition of the rock shelters, that is capable of detecting any mining induced impacts and that includes comprehensive reporting requirements.	Adopted	Yes
79.	The Commission recommends that prior to any approval of the project application that the Proponent provides OEH and the Department with an assessment of the scientific significance and structural stability of the recent Aboriginal cave discovery within the project area. Any associated management recommendations should be incorporated into the Aboriginal Cultural Heritage Management Plan in accordance with OEH's directions in its letter dated 4 December 2012.	Adopted	No

Reference	PAC Review Recommendation	Coalpac Response	Revised SoC
80.	The Commission recommends that if the Department recommends approval an Aboriginal Cultural Heritage Management Plan (ACHMP) should be required by way of a recommended condition to protect ACH sites and artefacts including the rock shelters. The ACHMP should include elements set out by AECOM (2011), address matters raised by the OEH in relation to the scope of the ACHMP in its submission dated 4 June 2012 and also address relevant matters set out in OEH's letter dated 4 December 2012 including retrieval of information from the rock shelters.	Adopted	Yes
81.	The Commission recommends that the standard for blasting to be applied to both the Carleon Coach House and the Cullen Bullen General Cemetery is for 'negligible impact', and this standard and the method to achieve it should be included in any conditions of approval and the relevant management plan(s).	Adopted	Yes
82.	The Commission recommends that the sandstone footings are fenced prior to construction of the conveyor, and this should be addressed in any conditions of approval and relevant management plan(s).	Adopted	Yes
83.	The Commission recommends that in the event of an approval appropriate conditions are included requiring compliance with the Proponent's Statement of Commitment 13 and for Coalpac to minimise its Scope 1 greenhouse gas emissions.	Adopted	Yes