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Mr David Kitto Department of Planning and Environment 23-33 Bridge St SYDNEY NSW 2001

Dear David

# MOOLARBEN COAL COMPLEX – RESPONSE TO PLANNING ASSESSMENT COMMISSION REVIEW REPORT

Moolarben Coal Operations Pty Ltd (MCO) is the operator of the Moolarben Coal Complex on behalf of the Moolarben Joint Venture. The Moolarben Joint Venture is comprised of Moolarben Coal Mines Pty Ltd (MCM), Sojitz Moolarben Resources Pty Ltd and a consortium of Korean power companies led by Kores Australia Moolarben Coal Pty Ltd.. MCO and MCM are wholly owned subsidiaries of Yancoal Australia Limited (Yancoal). MCM is the proponent for the Moolarben Coal Project Stage 2 (Stage 2) and Stage 1 Modification 3 (Stage 1 MOD 3) applications.

On 6 December 2013 the Minister for Planning and Infrastructure (now Planning) requested that the Planning Assessment Commission (Commission) review the Stage 2 and Stage 1 MOD 3 applications, hold a public hearing on the applications and provide a report on its review findings. On 28 May 2014 the Commission provided its Review Report on the applications to the Minister.

The Executive Summary of the Review Report states that (inter alia):

"The residual impacts of the project cover a wide spectrum, but relatively few of them are of major concern";

"...The Drip, impacts on biodiversity, water and noise are the most significant, but that impacts on air and final void and landform will need to be addressed before the project is submitted for determination";

"...the residual impacts of the project can be reduced to a low level if the recommendations in this review report are adopted. If this occurs...it can be approved subject to conditions."

Yancoal has carefully considered the Commission's Review Report including recommendations on the Stage 2 Project. Relevant comments and recommendations from the Review Report are reproduced in Enclosure 1, and in each instance are accompanied by a response from Yancoal.

Of particular note in Enclosure 1 are the responses to comments and recommendations in the Review Report regarding the reduction in the number of final voids, reducing the size of the out-of-pit emplacements and the provision of additional financial contribution for the Regent Honeyeater.

With regard to final voids, the responses in Enclosure 1 demonstrate that the complete backfilling of the final voids is neither reasonable nor feasible given the cost and additional environmental impacts associated with this activity.

With regard to reducing the size of the out-of-pit emplacements, the responses in Enclosure 1 demonstrate that Yancoal has previously been required to alter the design of the emplacements to reduce impact on sensitive vegetation communities. This design alteration was one of the primary drivers which led to the Stage 2 Preferred Project Report and resulted in a reduction in operational flexibility that would otherwise have been available through the original Stage 2 application. Yancoal therefore has limited ability to further reduce the size of the out-of-pit emplacement area without a significant redesign of the open cut pit and the potential sterilisation of coal reserves and subsequent loss of royalty revenue to the State. Therefore, Yancoal is not able to accept the Commission's recommendation on this matter.

As stated in previous correspondence to the Department of Planning and the Environment, the Office of Environment and Heritage and the Commission, Yancoal considers a monetary contribution towards the Regent Honeyeater is neither appropriate nor warranted. This is on the basis of the substantial Biodiversity Offset that has been developed as part of the Stage 2 application, including significant creation and conservation of habitat for the Regent Honeyeater. We note that the offset provides for materially greater Regent Honeyeater habitat than that which is being disturbed (5,585 hectares of offset habitat (including rehabilitated areas) vs 902 hectares of disturbance). We note also that this species has never been recorded at the Moolarben Coal Complex).

Finally, Yancoal notes that the Commission has imposed conditions relating to the protection of the Drip from potential Moolarben related mining impacts in its determination of the Stage 1 Modification 9 application. For this reason, Yancoal contends that the Commission's concerns regarding the Drip have already been dealt with and it has no relevance to the Stage 2 application.

Should you have any queries please do not hesitate to contact the undersigned on (02) 8583 5910.

Yours sincerely

Mark Jacobs General Manager, Environment & Community

ENCLOSURE 1

**RESPONSE TO PLANNING ASSESSMENT COMMISSION REVIEW** 

<b>Review Report Reference</b>	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Legislation – Comment		
ii p c	Overall the Commission considers that on the information currently available, the merits of the project require detailed evaluation against the criteria in s.79C of the Environmental Planning and Assessment Act 1979.	Yancoal understands that section 79C of the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) is relevant to the evaluation of development applications under Part 4 of the EP&A Act (including Division 4.1 pertaining to State Significant Development).
		The Stage 2 and Stage 1 MOD 3 applications are " <i>transitional Part 3A projects</i> " pursuant to the savings and transitional provisions in Schedule 6A of the EP&A Act and are therefore not State Significant Development. Clause 3 of Schedule 6A provides that Part 3A continues to apply to and in respect of " <i>transitional Part 3A projects</i> " following its repeal.
		Therefore, Stage 2 should be assessed under section 75J of the EP&A Act (as in force immediately prior to the repeal of Part 3A) and Stage 1 MOD 3 should be assessed under section 75W of the EP&A Act (as in force immediately prior to the repeal of Part 3A). Section 79C of the EP&A Act therefore does not apply to either the Stage 2 or Stage 1 MOD 3 applications.
The Drip – Comment		
Executive Summary, Page ii	The Commission considers that The Drip	We note that the Commission handed down this Stage 2 Review report on 28 May 2014. Since that date,
Executive Summary, Page ii       The Commission considers that The Drip         Review Report, Page 7       will need to be addressed before the project is submitted for determination.          The Commission also identified the significant public concern associated with The Drip which is a significant local natural feature. The Commission expects that this issue will be resolved in the determination of MOD 9.          There is a strong argument to incorporate the Drip and its surrounds into the Goulburn River National Park and the Commission agrees with this view.	<ul> <li>the Commission has determined Stage 1 MOD9 (16 June 2014). The security of the Drip is an issue that the Commission has comprehensively dealt with in its determination of the Stage 1 MOD 9 application. The Notice of Modification for Stage1 MOD 9 (16 June 2014) includes conditions requiring conservation of the land tenure and surrounds associated with the Drip. Hence, Yancoal does not expect the Commission's consideration of the Drip to prevent the determination of the Stage 2 or Stage 1 MOD 3 applications. Further, based on the above, Yancoal considers it is unwarranted for additional conditions relating to the Drip to be imposed on the Stage 2 Project when it is determined.</li> <li>We note that the Drip is located approximately 6 km north of the proposed Stage 2 mine development and is not predicted to be affected by the development of the Project. Further, Yancoal believes there are sufficient existing safeguards in place through the conditions and commitments in the existing Stage 1 Project Approval (05_0117) to protect the Drip from potential Moolarben Coal Complex related impacts, including (underline added for emphasis):</li> <li>Condition 26, Schedule 3 of Project Approval (05_0117)</li> <li>Subsidence – Natural Features</li> <li>26. The Proponent shall:</li> </ul>	
		<ul> <li>a) ensure that the <u>Drip</u>, Goulburn River Gorge and bed of the Goulburn River (see Appendix 7) remain outside the zone of recorded subsidence damage for longwall mining in NSW;</li> <li>Condition 32, Schedule 3 of Project Approval (05_0117)</li> </ul>
		Water Management Performance Measures (Table 11)
		The Drip - No more than negligible impact on the water supply to the Drip.

Review Report Reference	PAC Comment/Recommendation			Resp	onse to P	AC Comment/R	Recommendation	
Continued.	Continued.							
		Condition 33	, Sch	edule 3 of Proje	ct Approva	ıl (05_0117)		
		Water I	Manag	ement Plan				
		33.	Th	e Proponent shall	prepare and	l implement a Wat	er Management Plan:	
			 (b)	this plan must ir	nclude a:			
				 (iii) Groundwat	er Managen	nent Plan that inclu	udes:	
				• <i>a pr</i>	ogram to r	nonitor and repo	ort on:	
					impacts o	f the project on:		
					-	oundwater depen arian vegetation	ndent ecosystems (incl n;	ludin <u>g the Drip</u> ) and
		Appendix 3 (	State	ment of Commit	ments) of	Project Approva	l (05_0117)	
		(1) <b>F</b>	Protec	t The Drip and G	oulburn Riv	ver Corner Gorge		
		No ass ma	. 4 lay sociate iy be r	out to protect the ed cliffs so that the equired by any co	Goulburn Ri ere is no dan nditions of p	ver features known nage whilst seeking	n as the Drip, the Goulbur g to maximise recovery of the Moolarben Coal Proje	
		l í	No	Place Name	Impact Status	Significance	Summary Recommendation	
			23	Natural environment. ' <u>The Drip'</u>	No impact	Local – high	Ensure public access is maintained	
						ely working with term protection	relevant agencies and of the Drip.	key stakeholders to

<b>Review Report Reference</b>	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Biodiversity – Comment		•
Review Report, Pages 9 & 10	OEH questioned the Proponent's unilateral discounting of offset requirements by 7.58 credits per hectare of rehabilitation, noting that existing OEH policy and offsetting methodology allows for the inclusion of mine rehabilitation in offsets in exceptional circumstances only. So called 'deferred credits' are usually only claimable upon the successful completion of restorative actions and any credit surplus thus derived is applied to another development.  Importantly the Office of Environment and Heritage (2014) estimates that the Offset Scheme has a shortfall of approximately 55,000 bio-banking credits and also questions the appropriateness of the remote offset properties proposed to be included in the offset scheme.	<ul> <li>Yancoal assumes the reference to "7.58 credits per hectare of rehabilitation" is a reference to an Office of Environment and Heritage (OEH) output from the Bio-banking tool. Yancoal further notes the Commission's Review Report refers to estimates from OEH with regard to a shortfall in bio-banking credits associated with the Biodiversity Offset.</li> <li>Use of the Bio-banking methodology in determining offsets is not a mandatory requirement for "<i>transitional Part 3A projects</i>" and Yancoal has not elected to use the Bio-banking tool in determining Stage 2 Project offsets. Rather, the Stage 2 Biodiversity Offset has been developed in compliance with the relevant Director General's Requirements.</li> <li>The most contemporary documents regarding the Stage 2 Biodiversity Offsets and rehabilitation include:</li> <li>Letter from Yancoal to the Commission, dated 25 March 2014. Letter summarises the findings of the "<i>Moolarben Coal Project Stage 2 - Biodiversity Offset Strategy Additional Fauna and Flora Surveys</i>" (Cumberland Ecology, February 2014).</li> <li>Email from Yancoal to Department of Planning and Environment (DP&amp;E), dated 14 February 2014. This email included the report entitled "<i>Moolarben Coal Project Stage 2 - Biodiversity Offset Strategy Additional Fauna and Flora Surveys</i>" (Cumberland Ecology, February 2014).</li> <li>Letter from Yancoal to DP&amp;E, dated 8 February 2013. Letter summarises the Biodiversity Offset following the response to submissions on the Stage 2 Profered Project Report (PPR) and further consultation with the Office of Environment and Heritage (OEH) and the DP&amp;E.</li> <li>Each of these documents clearly describe the Biodiversity Offset as being separate from and not dependent on the rehabilitation of post mining landforms.</li> <li>Yancoal considers it has clearly demonstrated the suitability and robustness of the proposed Biodiversity Offset Strategy Additional Faung and Environment and Heritage (OEH) and the DP&amp;E.</li> <li>The <i>Moolarben Co</i></li></ul>

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
		• The 13 Biodiversity Offset Principles included in the DECCW (2010) Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A Developments (i.e. those assessed in the PPR and subsequent November 2012 correspondence) are the same 13 Biodiversity Offset Principles currently listed on the OEH website.
Continued.	Continued.	<ul> <li>Yancoal understands that the NSW Government released a draft NSW Biodiversity Offsets Policy for Major Projects (state significant development and state significant infrastructure) in March 2014 (i.e. after the Public Hearing for the Stage 2 and Stage 1 MOD 3 applications was held). Yancoal also understands that the March 2014 draft Biodiversity Offset Policy is planned to be phased into use in the second half of 2014 via transitional arrangements. The March 2014 draft Biodiversity Offsets policy is therefore not relevant to either the Stage 2 or the Stage 1 MOD 3 applications.</li> </ul>
		With regard to the question of the remoteness of some of the Biodiversity Offset properties, this has been thoroughly addressed in the <i>Moolarben Coal Project – Stage 2 Preferred Project Report</i> (PPR) and subsequent assessment documents. In designing the Biodiversity Offset emphasis was placed on finding properties that:
		were available for purchase;
		provided known or potential threatened species habitat;
		provided areas of threatened ecological community;
		complemented exiting conservation areas;
		complemented exiting and/or proposed Moolarben Coal Complex biodiversity offsets;
		provided strategic fauna movement corridor opportunities;
		could be complemented by future potential biodiversity offsets;
		<ul> <li>were large enough in their own right to be valuable conservation reserves; and</li> </ul>
		were located outside of existing coal mining tenements.
		Yancoal acknowledges that in satisfying these criteria a portion of the properties included in the Biodiversity Offset are located at some distance from the Project. Notwithstanding, Yancoal has demonstrated there is adequate and suitable vegetation on these properties that satisfy the "like-for-like" offset principle at a structural vegetation community level.
		Yancoal is confident the Biodiversity Offset is sufficiently robust and appropriate, considering the significant biodiversity benefits the Biodiversity Offset would deliver to the region and the extensive flora and fauna survey results demonstrate this fact.

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Review Report, Pages 11 & 12	PAC Comment/Recommendation The Commission agrees that the 902 ha of potential Regent Honeyeater habitat to be disturbed will not be easily or quickly replaced and that some additional support for threatened woodland birds is warranted.  The Commission considers that financial and/or in kind support for the Regent Honeyeater Recovery Team will need to be provided in the first instance, with the quantum of compensation to be commensurate with funding requirements that have been applied to other mines (for example Ravensworth).	Response to PAC Comment/Recommendation           The Commission's comments on the Regent Honeyeater follow from concerns raised by OEH in a letter to the Commission (dated 2 April 2014). In this letter, OEH raises concerns that " the loss of habitat and the immediate reduced capacity of this species to move across the landscape has not been addressed"           [emphasis added].         Notwithstanding that clearing would occur progressively over the 24 year Project life (i.e. as opposed to an "immediately loss" as inferred by the comments in OEH's letter), Yancoal developed the Stage 2 EA in compliance with the Director-General's Requirements (September 2008) and the subsequent PPR and Biodiversity Offset in compliance with the relevant (at the time) NSW biodiversity offsetting principles (Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A Developments [DECCW, 2010]). The Biodiversity Offset Principles included in DECCW (2010) are consistent with the Biodiversity Offset Principles urrently (as at 3 July 2014) listed on the OEH website.           The Director-General's Requirements relating to biodiversity state the need for the Project to "maintain or improve the biodiversity Offset Principles require (among other things) that "6. Offsets should aim to result in a net improvement in biodiversity over time" and that offsets should "ensure the long-term viability and functionality of biodiversity" [emphasis added].           Neither the Director-General's Requirements nor the OEH Biodiversity Offset Principles require assessment of short term or immediate biodiversity impacts. On this basis, and considering the robust and substantial Biodiversity Offset that has been developed. Yancoal considers that a requirement for a

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Continued.	Continued.	The area of potential Regent Honeyeater habitat would also be further increased by the existing commitments to revegetate 1,502 ha of the Stage 2 disturbance areas (excluding the final void) to a mosaic of forest/woodland with species typical of the <i>White Box Yellow Box Blakely's Red Gum Woodland</i> EEC (recognised habitat for the Regent Honeyeater). This will provide a total of <b>5,585 ha</b> of potential Regent Honeyeater habitat (when combined with the Biodiversity Offset areas) in the medium to long term.
		Significant habitat for the Regent Honeyeater includes Box-Ironbark eucalypt associations, particularly where they occur on wetter and more fertile sites, as well as River She-oak ( <i>Casuarina cunninghamiana</i> ) woodlands (Ingwersen, Geering, and Menkhorst 2013 – Draft <i>National Recovery Plan for the Regent Honeyeater <u>Anthochaera phrygia</u>). Significant habitat for the Regent Honeyeater occurs to varying degrees within all of the Stage 2 Biodiversity Offset properties and on lands immediately adjacent to the Biodiversity Offset properties.</i>
		Specific "Key Species" for the Regent Honeyeater include (Ingwersen et al. 2013 – Draft National Recovery Plan for the Regent Honeyeater <u>Anthochaera phrygia</u> ):
		Mugga Ironbark Eucalyptus sideroxylon;
		Yellow Box <i>Eucalyptus melliodora</i> ;
		White Box <i>Eucalyptus albens</i> ;
		Blue-leaved Stringybark Eucalyptus agglomerata;
		Broad-leaved Ironbark <i>Eucalytus fibrosa</i> ;
		Blakely's Red Gum <i>Eucalyptus blakelyi</i> ;
		Grey Gum Eucalyptus punctata;
		Box Mistletoe Amyema miquellii; and
		Needle-leaf Mistletoe Amyema cambagei on River She-oak Casuarina cunninghamiana.
		All of the above listed flora species (except Needle-leaf Mistletoe on River She-oak) have been recorded within the boundaries of the Moolarben Stage 2 Biodiversity Offset properties. Although the Needle-leaf Mistletoe was not identified during surveys, it is likely that the species would occur in River She-oak that has been recorded within and/or adjacent to the Biodiversity Offset properties.
		The Draft Recovery Plan for the Regent Honeyeater (Ingwersen <i>et al.</i> 2013) acknowledges that further key forage species, regularly used areas and significant habitat are likely to be identified over time during the implementation of actions recommended in the recovery plan. It is highly likely that additional habitat features for the Regent Honeyeater identified through that process will be represented within the Biodiversity Offset properties.
		Notwithstanding the above, Yancoal would accept a condition that specifically requires Regent Honeyeater (as well as other threatened fauna species) habitat regeneration to be targeted in the rehabilitation of Project disturbance areas and in the regeneration of the Biodiversity Offset areas, where relevant. Condition 27 of Schedule 3 of the draft conditions could be amended to reflect this.

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Review Report, Page 12	<ul> <li>OEH requested the Commission consider implementing a number of recommendations to address the lack of adequate justification for the proponents offset strategy.</li> <li>The [OEH] recommendations include: <ul> <li>The provision of buffer zones between open cut operations and Nature Reserves;</li> <li>The proponent conduct surveys to identify the entire boundary of the Stage 2 project with the Munghorn Gap Nature Reserve, in consultation with OEH;</li> <li>The PAC conduct a robust assessment of the project Biodiversity Offset Strategy and if accepting of the remote offset locations then further land management issues are to be addressed;</li> <li>Consider a precinct approach to the management of the outstanding biodiversity offset areas; and</li> <li>Ensure referencing of offset strategies meet OEH's guidelines.</li> </ul> </li> <li>The Commission considers that the Office of Environment and Heritage's requests are reasonable and should be generally adopted.</li> </ul>	<ul> <li>Yancoal does not agree with the claim that the Offset Strategy has not been adequately justified and reasseris the robustness and adequacy of the Biodiversity Offset as demonstrated in the above referenced correspondence to the DP&amp;E, OEH and the Commission.</li> <li>Yancoal further notes that some of the above OEH recommendations relate more broadly to the Commission and DP&amp;E and require consideration at an industry or State-wide policy level, in which Yancoal or the Stage 2 Project have no direct role.</li> <li><i>"The provision of buffer zones between open cut operations and Nature Reserves"</i></li> <li>Yancoal has already committed to provide a 50 m buffer between the Stage 2 open cut (Open Cut 4) and the Munghom Gap Nature Reserve in response to an earlier OEH submission on the Stage 2 Project. This was described in the June 2012 Preferred Project Report Response to Submissions (MCO, 2012).</li> <li>Yancoal supports the Commission's recommendation that this buffer should only relate to the open cut extent and not exclude infrastructure works (e.g. water drainage/diversion works, access tracks, pipelines, etc.) that would not directly impact the Nature Reserve.</li> <li>Therefore, Yancoal would accept a condition requiring a buffer of 50 m between the edge of the open cut and the Munghorn Gap Nature Reserve subject to ancillary infrastructure development not being restricted by the buffer.</li> <li><i>"The Proponent conduct surveys to identify the entire boundary of the Stage 2 project with the Munghorn Gap Nature Reserve, in consultation with OEH"</i></li> <li>Yancoal accepts this recommendation.</li> <li><i>"The PAC conduct a robust assessment of the project Biodiversity Offset Strategy and if accepting of the remote offset locations then further land management issues are to be addressed"</i></li> <li><i>"Consider a precinct approach to the management of the outstanding biodiversity offset Areas"</i></li> <li>As discussed above, Yancoal has demonstrated the robustness of t</li></ul>

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Continued.	Continued.	• A letter from Yancoal to DP&E in November 2012 described a revised Biodiversity Offset that had been augmented from the initial package to include additional properties, following consultation with OEH. The November 2012 letter provided an assessment of the revised Biodiversity Offset against the same offsetting policy used in the <i>Moolarben Coal Project Stage 2 Preferred Project Report – Appendix H Biodiversity Offsets Strategy</i> , i.e. the DECCW (2010) <i>Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A Developments</i> .
		• The 13 Biodiversity Offset Principles included in DECCW (2010) Interim Policy on Assessing and Offsetting Biodiversity Impacts of Part 3A Developments (i.e. those assessed in the PPR and subsequent November 2012 correspondence) are the same 13 Biodiversity Offset Principles currently listed on the OEH website.
		• Yancoal understands that the NSW Government released a draft NSW Biodiversity Offsets Policy for Major Projects (state significant development and state significant infrastructure) in March 2014 (i.e. after the Public Hearing for the Stage 2 and Stage 1 MOD 3 applications was held). Yancoal also understands that the March 2014 draft Biodiversity Offset Policy is planned to be phased into use in the second half of 2014 via transitional arrangements. The March 2014 draft Biodiversity Offsets policy is therefore not relevant to either the Stage 2 or the Stage 1 MOD 3 applications.
		On the basis of the above Yancoal considers that it has assessed the Biodiversity Offset against the correct and contemporary offset principles.
Biodiversity – Recommendation	n	•
Review Report, Page 13	A Regional Biodiversity Strategy should be prepared to set out the long-term framework for consistent and coordinated planning, management and monitoring of offset areas that will add to and/or complement existing and proposed conservation areas and corridors. It should be supported by a Regional Biodiversity Conservation Fund administered by an expert panel identifying priorities for expenditure to achieve strategic objectives for the region. The	Yancoal supports the concept of a Regional Biodiversity Strategy and a Regional Biodiversity Conservation Fund (similar to that proposed in the Upper Hunter) in principle. It also supports the implementation of these mechanisms as an alternative approach to the requirement for project offsets for any future changes or additions to the Moolarben Coal Mine Complex that would substantially increase the direct disturbance footprint of the mine. However, Yancoal notes this is a broader policy issue and is beyond individual project proponent's direct control. That is, the development and implementation of policy and funding relating to regional biodiversity management is the responsibility of Government and proponents can only be responsible for the management and funding of land over which they have control.
	strategy and fund should include provision for incentive payments for private landholders demonstrably contributing to achievement of regional conservation priorities.	Yancoal has made a significant financial investment in acquiring offset properties put forward in the Stage 2 Biodiversity Offset Strategy and therefore has a considerable existing investment in properties with clearly demonstrated conservation values. Hence, while in principle Yancoal supports the idea of a Regional Biodiversity Conservation Fund for future projects, Yancoal would not support contributing to a
	The regional biodiversity strategy should also be required to give consideration to woodland bird recovery objectives and to consider supplementary measures that may be able to be introduced to support the recovery of woodland	conservation fund for the Stage 2 Project.,. Yancoal has taken a strategic approach in designing its offset strategy for the Moolarben Coal Mine Complex, inclusive of the Stage 2 Project (i.e. Stage 1, Stage 2 and Stage 1 Modification 9). This includes (inter alia and as discussed above) seeking suitable offsets that, where possible:
	birds in conjunction with existing studies and efforts such as those currently underway for the	complement existing conservation areas;
	Regent Honeyeater and Swift Parrot.	complement existing and/or proposed Moolarben Coal Complex biodiversity offsets;

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
		complement other neighbouring mine biodiversity offsets; and
		provide strategic (local and regional) fauna movement corridor opportunities.
Continued.	Continued.	In this regard, the Moolarben Coal Complex Biodiversity Offsets when combined with surrounding conservation reserves, state forests, other mines' offsets and naturally vegetated crown and private land holdings, contribute to the provision of a substantial regional biodiversity outcome.
		In addition, Yancoal would manage the Moolarben Coal Complex Biodiversity Offsets with the objective of maintaining and improving regional biodiversity outcomes and would endeavour to integrate the management of these offsets with other regional biodiversity initiatives, such as:
		• Planning and implementing the management of weeds, pests, erosion and bushfire risk in consultation with the OEH (National Parks & Wildlife Service) and Central West Local Land Services, as appropriate.
		• Planning and implementing habitat creation, revegetation and regeneration activities (targeted at threatened communities and species) in consultation with OEH to enable consistent and integrated consideration of relevant recovery plan objectives.
		Condition 29 of Schedule 3 of the draft Stage 2 conditions requires the development and implementation of a Biodiversity Management Plan. Yancoal would accept extending the requirements of this condition (in relation to the rehabilitation of the Project disturbance areas and in revegetation of the Biodiversity Offset area) to encompass the relevant recommendations of the Commission, including:
		• Complementing existing and/or proposed conservation areas and wildlife corridors in the region.
		• Considering regional and State (where relevant) recovery objectives for woodland birds, especially the Regent Honeyeater and Swift Parrot.
		• Requiring Regent Honeyeater (as well as other threatened fauna species) habitat regeneration to be targeted, where relevant.
Water – Recommendation		
Review Report, Pages 16 & 17	The Water Management Performance Measures should be reviewed and strengthened in the final conditions to ensure local and regional impacts over time are detected early and appropriate mitigation measures are implemented to mitigate identified impacts. In this regard the Commission suggests the performance measures:	Yancoal would accept conditions that address the Commission's recommendations on water management performance measures. It also notes it is required to hold appropriate water licences for all predicted water quantity impacts and has commenced to secure all necessary licences in this regard.

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
	<ul> <li>should not only cover impacts on water quality, but should also cover impacts on water quantity, along with appropriate monitoring to ensure compliance with this measure;</li> </ul>	
Continued.	<ul> <li>should require mine water storage to be designed to prevent offsite discharges of mine (dirty) water, including adequate freeboard to account for potential intensification of extreme events as a result of climate change;</li> </ul>	Continued.
	<ul> <li>should require tailings, acid forming and potentially acid forming materials to be emplaced, encapsulated and capped in pit in such a way as to prevent the migration of pollutants beyond the pit shell (no out of pit emplacement of these materials should be allowed);</li> </ul>	
	<ul> <li>should include requirements for the pit voids to contain adequate freeboard to prevent discharge of surface water;</li> </ul>	
	<ul> <li>should include trigger levels and water quality objectives developed by considering both the existing site specific water quality data (or pre-mining data where this is available), and ANZECC 2000 guidelines, with the most stringent criteria to be adopted;</li> </ul>	
	<ul> <li>should ensure that the riparian vegetation is appropriately re-established along the realignment, and that aquatic biodiversity is also restored throughout the creek; and</li> </ul>	
	• the Proponent is to ensure it has sufficient water for all stages of the project and adjust the scale of operations to match the available water supply. The management of water supply is to also include provision for forward planning, to ensure that water supply constraints do not compromise any aspect of the environmental performance of the mine.	

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Review Report, Page 17	<ul> <li>The Water Management Plan requirements should include:</li> <li>reference to the Water Management Performance Measures set out in the previous condition [i.e. performance measures];</li> <li>reference to the Office of Water's additional monitoring requirements;</li> <li>reference to the National Water Quality Management Strategy;</li> <li>monitoring to characterise the Drip's water source; and</li> <li>a plan to respond to any monitoring that is inconsistent with the model and the predicted impacts on local and regional water resources.</li> </ul>	Yancoal would accept conditions that address the Commission's recommendations, noting (from an earlier response) that the Drip is not a relevant consideration for Stage 2 and therefore should not be a relevant consideration as part of the determination of the Stage 2 Project.
Noise, Dust and Blasting – Cor	clusion and Recommendation	
Review Report, Pages 19 & 20	In general terms the mine is relatively remote from large population centres and is not expected to cause significant air quality impacts over and above the levels already being produced by the existing mining operations in the area. The Commission is generally satisfied that the air emissions from the project can be managed with the implementation of best and leading practice control measures. Nonetheless the Commission makes the following recommendations in relation to air quality.  The current long term impact assessment criteria and acquisition criteria for annual average PM <sub>10</sub> levels should be reviewed against the WHO goal of 20 µg/m <sup>3</sup> .	The Air Quality Assessment for the Project has been assessed against the annual average criterion for PM <sub>10</sub> of 30 µg/m <sup>3</sup> specified in the NSW <i>Approved Methods for the Modelling and Assessment of Air Pollutants</i> , which is the applicable air quality criterion for the Project. Any change to this criterion is a matter of Government policy and this criterion should not be departed from in an ad hoc manner in relation to the Stage 2 application. Yancoal takes no issue with the Commission's recommendation for a review of the PM <sub>10</sub> criterion if the intent of the recommendation is that the relevant Government agencies should review the continued applicability of the criterion as the State's standard which is applied to all industry sectors.

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
	The commitment to work with NSW Education to deal with dust and noise impacts to the Ulan Public School should be included as a condition of approval for Stage 2.	Yancoal accepts this recommendation, noting that the Stage 1 Project Approval (05_0117) already contains commitments in this regard:
		Appendix 3 (Statement of Commitments) of Project Approval (05_0117):
		(5) Noise in School Rooms
		Moolarben in consultation with the Ulan Public School and the Department of Education will undertake agreed works to ameliorate potential noise and dust impacts associated with the Moolarben Coal Project upon classrooms and general school operations.
		OR
		Moolarben will, should the Department of Education request, on a reasonable basis relating to the effect of noise and dust from the Moolarben Coal Project, negotiate to contribute to or meet reasonable costs toward relocating the school.
Review Report, Page 20	Commission has considered are based on the	The use of a haul road as well as a conveyor to transport Run of Mine (ROM) coal from the Stage 2 open cut to the existing Stage 1 ROM coal facility is clearly described and assessed in the PPR. For example Section 3.4.1 of the PPR states (underline added for emphasis):
and the coal handling and processing facility. Any approval should be for use of the conveyor rather than any other means of transport.	OC4 coal will be transferred to the Stage 2 ROM coal facility via haul truck where it will be stockpiled or transferred to the Stage 1 ROM coal facility via conveyor. Alternatively, during conveyor maintenance and outages OC4 ROM <u>coal will be transferred via haul truck</u> to the Stage 1 ROM coal facility or associated stockpile.	
		The Air Quality Assessment (Appendix C of the PPR) modelled use of a haul road in years 2, 7, 12, 16, 19 and 24 to assess the likely " <i>worst case</i> " dust generating scenario for Stage 2 open cut ROM coal transport. An additional scenario using a conveyor in lieu of a haul road was also modelled.
		This additional scenario was used to demonstrate that dust generated from a conveyor would be within the dust impact envelope attributed to use of the haul road between the Stage 2 open cut and existing Stage 1 ROM coal facility. Section 5 of the Air Quality Assessment (Appendix C of the PPR) states (underline added for emphasis):
		To show the operation of the conveyor would not cause any additional dust impacts, an additional scenario was modelled for one representative worst-case year. Year 19 was chosen to represent a possible worst-case impact from the operation of the conveyor as this mine plan year would have the greatest quantity of ROM coal transported along the conveyor.
		All other modelled years are anticipated to show impacts below this year. The modelled years, as shown in Table 5-1 with the use of the haul road, are conservative as this activity would generate more dust emissions and show dust impacts greater than with the operation of the conveyor.
		The alternate use of a conveyor and a haul road were also assessed in various other specialist studies for the PPR, including the noise assessment, ecological assessment and Aboriginal heritage assessment.
		Hence, the haul road is an integral component of the development and will be required prior to construction and commissioning of the conveyor and during period when the conveyor is not operating (e.g. during maintenance).

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Review Report, Page 20	Given that the national 24 hour PM <sub>10</sub> criterion is 50 µg/m <sup>3</sup> , the Commission considers that the acquisition criteria should be reviewed in consultation with NSW Health and the EPA. The Commission recommends that revised acquisition criteria should be developed in consultation with NSW Health and the EPA prior to any final approval of this project.	Yancoal considers the Commission's recommendation for a review of particulate matter concentration acquisition criteria is a State policy matter that would apply to consideration of multiple industry sectors, development types and land use activities. Hence it is a State policy issue that has much broader application than the determination of the Stage 2 application alone. This is not a matter which should delay the determination of the Stage 2 project. Yancoal notes that the recent determination of the Moolarben Coal Complex Stage 1 MOD 9 by the Commission (05_0117- dated 16 June 2014) includes a particulate matter concentration (i.e. for incremental impacts, i.e. incremental increase in concentrations due to the project on its own) acquisition criterion for 24 hour PM <sub>10</sub> criterion is 50 µg/m <sup>3</sup> . On this basis Yancoal considers it manifestly unfair and unreasonable to require the existing proposed particulate matter concentration acquisition criteria (as proposed in the DP&E's recommended draft conditions) to be reviewed and revised " <i>prior to any final approval of this project</i> ". Yancoal takes no issue with the Commission's recommendation for a review of the PM <sub>10</sub> criterion if the intent of the recommendation is that the relevant Government agencies should review the continued applicability of the criterion as the State's standard which is applied to all industry sectors.
Review Report, Page 20	The Commission does not agree with the draft changes to the conditions relating to air quality and recommends that the conditions for Stage 2 are drafted to be consistent with the existing conditions for Stage 1, wherever possible. This has been addressed in more detail within the determination of MOD 9.	Yancoal understands that the draft conditions for Stage 2 are consistent with other contemporary mining approvals and would accept the conditions as currently drafted. Notwithstanding, Yancoal would accept conditions relating to air quality consistent with the current Stage 1 Project Approval (05_0117) (including the recent determination of Stage 1 MOD 9 by the Commission).
Final Voids – Comment and Re	commendation	
Review Report, Pages 21 & 22	The Commission considers best practice is to avoid the creation of a final pit void lake in the initial mine planning for the site   Two of the final voids in the stage 1 project area are designed to provide access to the underground mine domains, while the third void would be left at the end of mining in open cut pit 4. The Commission considers that	One of the key objectives in the design of the Stage 2 open cut (open cut 4) put forward for approval in the Stage 2 Environmental Assessment (EA) was to limit the number of final voids in the open cut 4 post-mining landform to one. This required commencing Open Cut 4 mining in the southern end of Murragamba Valley then progressing north, then east into the adjoining valley floor areas, with a small final void located at the eastern extent of the open cut area (refer to Plans 5 to 10 of the Stage 2 EA). The DP&E's previous request for Yancoal to alter the Project to reduce impacts on EECs required key changes to the open cut mine design. This included relocating the out-of-pit waste rock emplacement and initial "box cut" (i.e. mine commencing location) to the western side of the Murragamba Valley, with subsequent mine progression to the south, as well as north, then east as per the original proposal
	further consideration should be given to options to adjust the mine plan to ensure that no more than two final voids are included in the final post mining landform for the complex.	<ul> <li>(refer to Figures 5 to 10 of the Stage 2 PPR). Notwithstanding the added complexities this presented to mine sequencing and progression, Yancoal has maintained its commitment to limit the number of voids in the final Stage 2 open cut disturbance area, and through careful consideration of mine design has maintained only one final void as originally proposed for the Stage 2 Project. This was described in Section 3.2.1 of the PPR (for example).</li> <li>In addition, the Stage 1 Project Approval (05_0117) currently authorises three final voids within the Stage 1 post mining landscape (one in each of the three open cuts).</li> </ul>

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Continued.	The Commission recommends that further consideration should be given to options to adjust the Mine Plan to ensure that no more than two final voids are included in the final post mining landform for the complex.	In its planning for the Stage 2 Project, the Stage 1 MOD 3 application and the separate Stage 1 MOD 9 application, Yancoal has revised the number and locations of voids required to be left in the Stage 1 post mining landscape. This includes the removal of a void in the Stage 1 Open Cut 2 mine, but requires two voids be left within the Stage 1 Open Cut 1 mine to provide access to the Stage 2 Underground 1 and 2 mines and the Stage 1 Underground 4 mine respectively.
		In response to the Commission's recommendation on this matter, Yancoal has considered the constraints and costs involved in backfilling the voids on completion of mining. This analysis assumes:
		<ul> <li>of the four final voids, two voids located in Open Cut 1 must remain open to provide access to the Underground 1 and Underground 4 portals and therefore cannot be backfilled;</li> </ul>
		Open Cut 3 and Open Cut 4 are backfilled to approximately pre-mining landforms;
		<ul> <li>hauling of overburden material via haul roads proposed under Stage 1 and Stage 2;</li> </ul>
		<ul> <li>mining equipment is the same as that proposed for the Project;</li> </ul>
		<ul> <li>operating costs for staff and fleet are the same as those used for the Project;</li> </ul>
		<ul> <li>no additional costs associated with managing excess water;</li> </ul>
		<ul> <li>no progressive rehabilitation of the out-of-pit emplacements (i.e. waste emplacements remain active for the duration of the Project); and</li> </ul>
		<ul> <li>no additional costs associated with increased noise and/or air quality impacts at privately owned receivers.</li> </ul>
		The analysis shows that the total cost of backfilling the Open Cut 3 and Open Cut 4 final voids would be approximately <b>\$133M</b> (present value), significantly devaluing the Project.
		In addition to significant Project devaluation, there would be a number of additional environmental impacts that would result from backfilling the final voids as discussed below.
		If rehabilitation of the out-of-pit emplacements occurred after the backfilling of Open Cut 3 and Open Cut 4, this would result in the following additional impacts to those assessed in the Stage 2 PPR:
		<ul> <li>Increased air quality impacts as a result of the out-of-pit emplacement areas remaining active (i.e. there would be no progressive rehabilitation) for the full duration of mining, whilst the Open Cut 3 and Open Cut 4 open cut pits are mined.</li> </ul>
		<ul> <li>Without progressive rehabilitation of the out-of-pit emplacement areas, there would be additional runoff from disturbed areas which would require additional sediment dams for management.</li> </ul>
		<ul> <li>Increased noise impacts resulting from additional fleet being located at higher elevations and closer to privately owned receivers (e.g. excavators on the out-of-pit emplacements) at the completion of mining.</li> </ul>
		In consideration of the above cost and additional potential environmental impacts, the complete backfilling of the final voids is not reasonable or feasible for Yancoal to undertake.

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation		
Emplacements – Comment and Recommendation				
Review Report, Pages 21 & 22	The Commission considers that further consideration of options to reduce the size of the out of pit emplacement area, particularly for stage 2 should be pursued. The out of pit emplacement should particularly avoid impacts on endangered ecological communities. The distance between pit 2 and pit 4 is relatively small and the emplacement of at least some of this material in pit 2 appears to be a realistic option which should be considered to minimise out of pit emplacement.  Further consideration of options to reduce the size of the out of pit emplacement area, particularly for Stage 2 should also be pursued.	As discussed above, the DP&E previously required the Stage 2 Project to be altered to specifically demonstrate further impact avoidance on EECs. In addition to other mine design changes, this required relocating and reducing the size of the out-of-pit emplacement, which directly avoids impacting some 34 hectares of EECs. This was described in Section 3 of the PPR (Table 8 for example). Yancoal notes that in revising the location and size of the Stage 2 open cut out-of-pit emplacement area it had to trade-off some of the flexibility that the original larger emplacement areas provided (as proposed in the Stage 2 EA). Hence, from a mine design, materials handling and operator safety perspective Yancoal has limited ability to further reduce the size of the out-of-pit emplacement area without a significant redesign of the open cut pit and the potential sterilisation of coal reserves. Therefore, Yancoal cannot accept the Commission's recommendation on this matter.		
Production Levels – Comment				
Review Report, Page 22	The Commission notes the Preferred Project Report provides for 13 million tonnes of product coal whereas the draft conditions allow for up to 17 million tonnes of coal to be exported from the site each year. The Commission recommends this anomaly be reviewed with the project application.	Yancoal would accept a revised condition in this regard consistent with the Preferred Project Report.		
Subsidence – Recommendation	ı			
Review Report, Page 22	The consideration of the Stage 2 project application should include provision for ongoing monitoring for subsidence in addition to a Trigger Action Response Plan (TARP).	The DP&E's recommended draft conditions for the Stage 2 Project contain the requirement for the preparation and implementation of an Extraction Plan prior to the development of second workings (i.e. longwall extraction). Yancoal is aware the DP&E and NSW Trade & Investment – Division of Resources & Energy (DRE) are finalising guidelines for the preparation of Extraction Plans, which are due to be implemented in July 2014. To support this new subsidence management regime DRE has also revised its standard mining lease Subsidence Management Plan conditions. Yancoal understands the revised mining lease condition obligates the leaseholder to have a complying Extraction Plan in place before causing subsidence. The condition also requires a Subsidence Monitoring Program to be implemented prior to causing any subsidence.		

Review Report Reference	PAC Comment/Recommendation	Response to PAC Comment/Recommendation
Continued.	Continued.	Yancoal has reviewed a draft of the DP&E/DRE Extraction Plan guidelines and notes that an Extraction Plan prepared in accordance with the guideline must include a comprehensive monitoring program which (inter alia) addresses the timing, frequency and duration of subsidence monitoring. The draft guideline also requires the Extraction Plan to include a Trigger Action Response Plan. Consequently, while Yancoal supports the Commission's review findings on this matter it notes the Commission's recommendations are addressed in the requirement for an Extraction Plan in the DP&E's proposed draft conditions for the Project and therefore does not require an additional condition in this regard.