



# **MANNERING COLLIERY – MODIFICATION 3**

## **Response to Submissions**

**3**

### **Section 75W Modification to MP06\_0311**

Prepared for LakeCoal Pty Limited  
September 2015





---

## Mannering Colliery - Modification 3

Section 75W Modification to MP06\_0311 | Response to Submissions

Prepared for LakeCoal Pty Ltd | 30 September 2015

---

Ground Floor, Suite 01, 20 Chandos Street  
St Leonards, NSW, 2065

T +61 2 9493 9500  
F +61 2 9493 9599  
E [info@emgamm.com](mailto:info@emgamm.com)

[emgamm.com](http://emgamm.com)



---

## Manning Colliery - Modification 3

Final

Report J15017RP3 | Prepared for LakeCoal Pty Ltd | 30 September 2015

---

Prepared by	John Arnold	Approved by	Luke Stewart
Position	Associate Environmental Planner	Position	Director
Signature		Signature	
Date	30 September 2015	Date	30 September 2015

---

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

© Reproduction of this report for educational or other non-commercial purposes is authorised without prior written permission from EMM provided the source is fully acknowledged. Reproduction of this report for resale or other commercial purposes is prohibited without EMM's prior written permission (excluding by LakeCoal Pty Limited).

### Document Control

Version	Date	Prepared by	Reviewed by
1	30 September 2015	Rachael Thelwell and John Arnold	Luke Stewart

---



T +61 (0)2 9493 9500 | F +61 (0)2 9493 9599

Ground Floor | Suite 01 | 20 Chandos Street | St Leonards | New South Wales | 2065 | Australia

[emgamm.com](http://emgamm.com)

# Table of contents

---

Chapter 1	Background	1
Chapter 2	Community submissions	3
Chapter 3	Government agencies and organisations submissions	5

---

## Appendices

A	Revised statement of commitments
B	EPA recommended conditions of approval - consideration

## Tables

3.1	Summary of submissions and responses	6
A.1	Commitments	A.1
B.1	EPA recommended conditions of approval - consideration	B.1





## 1 Background

We refer to a proposal by the applicant, LakeCoal Pty Limited (LakeCoal), dated July 2015, for the modification to Mannering Colliery's (MC) major project approval MP06\_0311 under Section 75W of the NSW *Environment Planning and Assessment Act 1979* (EP&A Act).

The proposed modification is to enable:

- an increase in the rate of run-of-mine (ROM) coal handling at, and transport from, MC from 1.1 million tonnes per annum (Mtpa) to a maximum of 1.3 Mtpa;
- an extension of the project approval period from 31 March 2018 to 30 June 2022; and
- minor vegetation clearing/disturbance adjacent to some infrastructure at MC's pit top to enable the extension/establishment of asset protection zones (APZs) for bushfire protection purposes.

There would be no changes to the surface infrastructure at MC, including ROM pads, and no increase in approved employee numbers under the proposal. All other components of MC, as approved under MP06\_0311 will remain unchanged.

It is noted that an underground linkage within the Fassifern Seam is approved between MC and the adjacent Chain Valley Colliery (CVC). CVC operates under Development Consent SSD-5465. A separate modification of SSD-5465 is being sought to, amongst other things, permit an increase in the maximum rate of ROM coal extraction at CVC from 1.5 Mtpa to 2.1 Mtpa and enable mine design changes, primarily the re-orientation of miniwall panels in CVC's northern mining area. All production beyond the existing limit of 1.5 Mtpa will be sent via MC to Vales Point Power Station (VPPS). Minor vegetation clearing/disturbance adjacent to some infrastructure at CVC's pit top, and at the ventilation fan site at Summerland Point, is also proposed to enable the extension/establishment of APZs for bushfire protection purposes in those areas.

The *Mannering Colliery Modification 3 Environmental Assessment* (EA) (EMM 2015) accompanying the modification application was publically exhibited from 15 July to 6 August 2015.

Following public exhibition of the EA, a total of 10 submissions were received: eight from government agencies and organisations and two from community members.

As concluded in the EA, the proposed modification is a minor alteration to the approved development and should be approved as:

- it permits the ongoing employment and expenditure associated with MC (and CVC) through to 30 June 2022;
- it enables LakeCoal to operate both MC and CVC in a co-ordinated manner for the duration of its current agreement with Centennial;
- it provides adequate time for strategic planning and assessment of potential mining activities not approved under MP06\_0311;
- it enables an increased level of bushfire protection for both the employees and assets essential for the continued operation of MC;

- the benefits can be achieved with minimal risk of adverse environmental impact;
- it is aligned with the principles of ESD; and
- it is consistent with all relevant government policies.

Further, the proposed modification supports the increased employment at CVC (approximately 60 additional full time jobs) and would enable the proposed coal supply to VPPS to be preferentially transported via conveyor.



## 2 Community submissions

Two submissions were received from community members: one in support and one objecting to the proposed modification.

Reasons for support of the proposed modification are summarised below.

- The proposed modification will increase the existing approval life of the mine and associated employment benefits, despite being on care and maintenance.
- It will enable coordinated operations with CVC.
- It will provide suitable time to develop and assess strategic long term plans for MC.
- It will enable increased bushfire protection to the site and employees.
- The above can be achieved with little or no risk of adverse environmental impacts.

Matters raised in the one submission objecting to the proposed modification are given below in italics with responses provided for each matter.

### *Increase in dust from increase in mining from 1.1 Mtpa to 1.3 Mtpa*

The increase from 1.1 Mtpa to 1.3 Mtpa relates to coal handling, not mining as suggested.

An air quality assessment was undertaken for the proposed modification by Pacific Environment Operations Pty Limited. No significant changes in predicted air quality impacts to those assessed for MP06\_0311 (HAS, 2007) are predicted under the proposed modification. The assessment found that the increase in dust emissions would meet the project approval and relevant government criteria at nearby sensitive receivers, a finding supported by the EPA in its submission.

Air quality at MC will continue to be managed in accordance with the existing air quality management regime prescribed in MC's air quality management plan. Additional mitigation and management measures were not warranted as a result of the proposed modification.

### *Increase in truck traffic along Ruttleys Road*

Coal from MC is not transported via public roads, including Ruttleys Road.

All coal produced at MC is transported to VPPS by a purpose built overland conveyor. As the additional coal handled at the MC surface facilities would continue to be transported to VPPS by the overland conveyor, the proposed modification will not result in an increase in truck traffic along Ruttleys Road.

It is also noted that the separate application to modify CVC's development consent SSD-5465 does not propose to increase truck transport of coal.

#### *Increase in subsidence due to increased mining*

The proposed modification does not alter the approved mining areas or rate of extraction at MC. Therefore, predicted levels of subsidence will not change beyond those currently approved under MP06\_0311. It is noted that subsidence impacts resulting from the modification to CVC's development consent SSD-5465 have been assessed separately in the *Chain Valley Colliery Modification 2 Statement of Environmental Effects* (EMM 2015). That assessment predicted that any change in subsidence over the levels predicted previously would be minimal (incremental increase from the approved operations by 160 mm for single-seam mining areas and 340 mm for multi-seam mining areas) and would not impact on existing infrastructure or significantly impact on the environment.

#### *Increasing production will affect the local living conditions*

The impacts on social amenity as a result of the proposed modification (eg from potential air quality, noise and vibration impacts) were assessed in the EA and found to have little to no adverse impact. The proposed modification includes additional commitments made to negate or minimise potential environmental impacts from the proposed modification. The existing environmental management regime is considered sufficient to manage all other potential amenity impacts from the proposed modification.

### 3 Government agencies and organisations submissions

Eight submissions were prepared by government agencies and organisations. These comprised submissions from:

- NSW Department of Industry, Skills and Regional Development – Division of Resources & Energy (DRE);
- NSW Office of Environment and Heritage (OEH);
- NSW Environment Protection Authority (EPA);
- NSW Department of Primary Industries (DPI);
- NSW Mine Subsidence Board;
- Wyong Shire Council (WSC);
- Lake Macquarie City Council (LMCC); and
- Darkinjung Local Aboriginal Land Council.

A summary of the submissions and responses to comments made in relation to the proposed modification are provided in Table 3.1.

A revised statement of commitments is provided in Appendix A. Note that these commitments are in response to the proposed modification and are additional to the commitments made for the approved operations and identified in the existing project approval.

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
DRE	<p>DRE notes that the proposed modification has a minor change to the spatial extent of the operation resulting in a minor additional rehabilitation obligation. The SEE has not identified general rehabilitation strategies and objectives, and does not adequately describe the functional domains of this project. Specific performance objectives and standards of each domain have not been satisfactorily described, but these can be addressed through amendment to the Mining Operations Plan (MOP).</p> <hr/> <p>DRE recommends that conditions related to the following be incorporated into the MC project approval:</p> <ul style="list-style-type: none"> <li>• rehabilitation objectives and commitments;</li> <li>• progressive rehabilitation; and</li> <li>• rehabilitation plan.</li> </ul>	<p>The proposed modification does not entail changes to the surface infrastructure and only minor surface disturbance (approximately 0.72 ha associated with the extension/establishment of asset protection zones (APZs)). General rehabilitation strategies and objectives for the additional surface disturbance will be consistent with existing mine closure and rehabilitation measures as described in MC's mining operations plan (MOP). Mine closure and rehabilitation will be undertaken in accordance with Condition 13 of Schedule 3 of MP06_0311 with the surface facilities to be rehabilitated to the satisfaction of the Executive Director Mineral Resources.</p> <p>LakeCoal understands that its MOP will need to be updated to incorporate the minor change to the spatial extent of the operation. As the MOP is required to be accepted by DRE, any changes will need to be consistent with the Department's MOP Guidelines, dated September 2013 (ESG3) and to the satisfaction of DRE.</p> <hr/> <p>LakeCoal has no objection to the inclusion of conditions relating to rehabilitation objectives. However, it is noted that the requirement for progressive rehabilitation is generally associated with open cut mining and the imposition of any condition should relate to and be commensurate with the nature of the activity.</p> <p>MC's MOP satisfies the requirements for the proposed condition regarding a Rehabilitation Plan. The MOP will be reviewed and revised as required should approval for the proposed modification be granted.</p>
OEH	<p><i>Surveying</i></p> <p>OEH states that no specific fauna surveying was completed on the proposed impact footprint and, therefore, questions the results of the 'assessment of significance'. OEH considers that a single site visit to conduct habitat assessments and opportunistic sightings is insufficient to determine the likelihood absence/presence of potential threatened fauna and an adequate justification is required to establish why accredited survey techniques were not applied.</p> <p>Similarly, OEH notes that limited flora survey work, particularly targeted searches for threatened species such as <i>Tethratheca juncea</i>, has been undertaken. OEH questions why the orchid: <i>Cryptostylis huterina</i>, <i>Diuris praecox</i> and <i>Genoplesium insignis</i> were considered a potential for CVC but not for MC. OEH expected targeted searches to have been undertaken for these species and at the appropriate flowering time when they would likely be detected.</p>	<p>Extensive field surveys have been completed at MC and the surrounding Delta Electricity lands (Ecotone Ecological Consultants 2010 and EMM 2014). As described in Section 5.7 of the EA, field investigations were also completed as part of the ecological assessment for the proposed modification and included identification and mapping of vegetation communities, targeted threatened flora searches, fauna habitat assessment and opportunistic sightings. These field surveys have resulted in a wealth of existing ecological information for the local area.</p> <p><i>Targeted bird survey</i></p> <p>Notwithstanding the above, subsequent to receipt of OEH's submission, a targeted survey was completed on 26 August 2015 for threatened birds with potential habitat in the areas to be disturbed. Species targeted comprised the Little Lorikeet (<i>Glossopsitta pusilla</i>), Scarlet Robin (<i>Petroica boodang</i>) and White-fronted Chat (<i>Epthianura albifrons</i>). The survey did not record these or any other threatened bird species. As these species were not recorded during the initial opportunistic surveys or targeted surveys, their likelihood of occurrence in the areas to be cleared/disturbed as result of the proposed modification, is assessed to be low. Additionally, their habitat is widely available in the area surrounding MC's pit top. Therefore, impacts from the proposed modification are not predicted to be significant for threatened bird species.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p>OEH question the validity and assumption made about the impacts on threatened flora within the EA based on the lack of surveys.</p>	<p><i>Potentially occurring threatened microbats</i></p> <p>Targeted surveys were not completed during the current round of surveys for the Eastern Freetail Bat (<i>Mormopterus norfolkensis</i>), Little Bentwing Bat (<i>Miniopterus australis</i>) and Eastern Bentwing Bat (<i>Miniopterus schreibersii oceanensis</i>) as they had been recorded during previous surveys (Ecotone Ecological Consultants 2010; EMM 2014; NGH Environmental 2011). Accordingly, these species were assumed to be present in the wider area, and occasionally use the areas proposed to be cleared/disturbed as a result of the proposed modification. The assessments of significance were based upon these assumptions.</p> <p>Assessments of significance were completed for the above species to assess potential impacts of the proposed modification. Roosting habitat for the tree-dwelling Eastern Freetail Bat will be retained within the APZ, and only a small area of foraging habitat will be selectively thinned on the margins of a substantially larger area of habitat for the species. Therefore, the proposed modification will not result in significant impacts for the species. The Eastern Bentwing Bat and Little Bentwing Bat are primarily cave dwelling and, as with the Eastern Freetail Bat, the habitat to be thinned would form a small part of a much wider foraging range in the locality. The assessments concluded that the proposed modification will not result in significant impacts for the Eastern Bentwing Bat or Little Bentwing Bat. As important habitat features for these species will be retained and the species were assumed to be present, targeted surveys were not considered necessary to inform the assessment of significance.</p> <p><i>Potentially occurring threatened megabats</i></p> <p>Targeted surveys were not completed during the current round of surveys for the Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>) as it had been recorded during previous surveys (Ecotone Ecological Consultants 2010). Accordingly, this species was assumed to be present in the wider area, and occasionally use the areas proposed to be cleared/disturbed as a result of the proposed modification. The assessment of significance was based upon this assumption.</p> <p>An assessment of significance was completed for the Grey-headed Flying-fox to assess potential impacts of the proposed modification. Grey-headed Flying-fox habitat to be thinned for the APZ forms a small part of a much wider foraging range in the locality. Additionally, the site does not contain a roosting camp of the species. Therefore, the proposed modification will not result in significant impacts for the Grey-headed Flying-fox.</p> <p><i>Targeted threatened flora survey</i></p> <p>Subsequent to receipt of OEH's submission, a targeted survey was completed on 26 August 2015 for threatened flora with potential habitat in the areas to be disturbed. Results are discussed below.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
		<p>During targeted surveys the leaves of several individuals of the Bonnet Orchid (<i>C. erecta</i>), a common tongue-orchid species sometimes occurring with the Leafless Tongue Orchid, were recorded. Targeted pre-clearance surveys will be completed in Quarter 4 2015 for the Leafless Tongue Orchid, prior to clearing/disturbance for the extension/establishment of APZs. If individuals of the species are found, they will be marked in the field and protective fencing (which allows for future plant growth) will be erected to ensure that they are not damaged during the annual mowing of the understorey. Therefore, the proposed modification is not expected to result in significant impacts on the Leafless Tongue Orchid.</p> <p>During the targeted survey, it was determined that habitat was absent for the Rough Doubletail (<i>Diuris praecox</i>), as the areas to be disturbed were not located on slopes or hillsides, and are flat in topography. As the species is deemed unlikely to occur, the proposed modification will not result in significant impacts on the Rough Doubletail.</p> <p>The targeted surveys were completed immediately prior to the flowering season of the Variable Midge Orchid (<i>Genoplesium insignis</i>) (September to October). Given that the targeted survey was completed immediately prior to the flowering season, above ground components of the species should have been recorded, if present. No individuals were recorded during the targeted survey. Therefore, the species is deemed unlikely to occur and impacts are not predicted to be significant on the Variable Midge Orchid.</p> <p>It is noted that although MC contains Smooth-barked Apple – Red Bloodwood open forest on coastal plains of the Central Coast, Sydney Basin, a vegetation type that may provide habitat for Leafless Tongue Orchid (<i>Cryptostylis hunteriana</i>), the field surveys completed as part of the EA did not identify habitat to be present at the site. The understorey of Smooth-barked Apple – Red Bloodwood open forest on coastal plains of the Central Coast, Sydney Basin on the site is in very poor condition and is densely vegetated with weeds. In comparison, the Leafless Tongue Orchid prefers open areas in the understorey of this community. Consequently, the species was deemed unlikely to occur and no targeted survey is warranted.</p>
	<p><i>Threatened species</i></p> <p>OEH has not completed a detailed review of the threatened species assessment section of the EA for reasons outlined above, though does concur that for threatened fauna the site is unlikely to impact on significant habitat.</p>	<p>Noted. Assessment of the proposed modification has shown that there will not be significant impacts on threatened fauna species.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p><i>Biodiversity offsets</i></p> <p>OEH states that although it acknowledges that the proposed development area and impacts to biodiversity are likely to be small, there is no lower limit with respect to scale of the development for the provision of offsets/compensatory habitat. It also notes that no offsets or compensatory measures have been provided as yet.</p> <p>OEH provides estimates of the offset liability for the proposed modification under the OEH (2014) BioBanking Assessment Methodology as 5 'ecosystem credits' or \$10,000.</p> <p>OEH recommends that the applicant should either retire the appropriate credits or provide funding, equivalent to the biodiversity value that is being lost, to either a site specific environmental project that benefits threatened species or towards an action(s) that benefits a likely potential threatened species. It notes that if this approach is not adopted, OEH expects a suitable offset (commensurate to the impact site) be set aside and managed in perpetuity under a conservation mechanism.</p>	<p>The proposed extension/establishment of the APZs adjacent to some assets is an outcome of a bushfire management risk assessment and subsequent bushfire hazard assessment completed following major bushfires in the immediate vicinity of MC's pit top and CVC's ventilation fan site at Summerland Point on 17 October 2013. Although only minor assets were damaged at MC during this bushfire, the subsequent assessments determined that some modifications to existing APZs, and the establishment of new APZs, were required to afford an appropriate level of bushfire protection for both the employees and assets essential for the operation of MC. The APZs will also afford better protection of native vegetation surrounding MC.</p> <p>In its assessment of the credit liability, OEH assumes that 0.35 ha of Swamp Oak Floodplain Forest EEC and 0.05 ha of Smooth-barked Apple Red Bloodwood Forest will be removed, and all vegetation within the APZ will be removed, which would generate between five and ten ecosystem credits. As stated in Section 5.4.3 of the EA, trees will be selectively retained within the APZ, and will be managed generally according to the following.</p> <p>APZ inner protection areas (IPAs):</p> <ul style="list-style-type: none"> <li>• canopy cover will be kept at less than 15% of total surface area and at least 2 m from the roof line of a building;</li> <li>• garden beds and shrubs will not be located under trees and sited at least 10 m from any exposed windows or doors; and</li> <li>• lower limbs of trees up to 2 m above the ground will be removed.</li> </ul> <p>APZ outer protection areas (OPAs):</p> <ul style="list-style-type: none"> <li>• canopy cover will be kept at less than 30% of total surface area; and</li> <li>• understorey will be mowed annually before the fire season (usually September) to remove shrubs and long grasses.</li> </ul> <p>Given that the vegetation will only be thinned and not completely removed within the APZs, the lower end of the credit range provided (five ecosystem credits) is likely to be generated.</p> <p>Biodiversity offset sites need to be large enough to enable biodiversity benefits. The small number of credits generated by the proposed modification's impacts would require a biodiversity offset site to be established that would be well beneath this threshold. In consideration of the above, a greater biodiversity benefit would be achieved through the provision of funding to a conservation project or the purchase of credits that benefit the community and species impacted. Accordingly, the applicant will investigate the following options for biodiversity offsets:</p>



**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
		<ul style="list-style-type: none"> <li>provide \$10,000 of funding, which is equivalent to the biodiversity being lost (ie 5 credits x \$2,000 per credit) to existing environmental programs at the site which benefits the Swamp Oak Floodplain Forest EEC; or</li> <li>consult with OEH to identify a suitable conservation program and provide \$10,000 of funding; or</li> <li>purchase and retire 5 credits on the Biobanking register.</li> </ul> <p>These options will be considered by the applicant in consultation with OEH and will reflect OEH's 'Approved BioBanking Assessment Methodology 2014'. The option that achieves the greatest benefit to the biodiversity impacted by the proposed modification will be selected.</p>
	<p><i>Aboriginal cultural heritage assessment</i></p> <p>OEH states that it concurs with the assessment that there may be negligible increase in potential impacts by the proposed modification and there are no known sites that will be impacted. OEH also notes that all activities will continue to be managed in accordance with MC's Aboriginal Heritage Management Plan. OEH states that it has no additional concerns with respect to Aboriginal cultural heritage and the proposed modification.</p>	<p>OEH concurrence is noted. MC's Aboriginal cultural heritage management plan (ACHMP) provides for the identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site in accordance with Schedule 3 Condition 18 of MP06_0311.</p>
	<p><i>Flooding and Floodplain management</i></p> <p>OEH recommends that MC's Water Management Plan (WMP) be reviewed and updated, where required, following subsidence episodes, to ensure surface water management infrastructure continues to function as designed.</p>	<p>The proposed modification does not seek to alter the approved mining areas or rate of extraction at MC. Therefore, predicted subsidence levels will not change beyond those assessed and approved under MP06_0311. Furthermore, not only is MC currently under care and maintenance, ie there are no active mining areas, but approved mining areas are not located beneath surface water management infrastructure and, therefore, would not be impacted by approved future subsidence. There would be no change to MC's existing water management regime as a result of the proposed modification and, as such, LakeCoal does not believe that an update to its existing WMP is required at this stage.</p>
	<p>OEH notes that there are no adverse impacts on surface flooding of private properties as a result of the proposed development, based on the information provided in the SEE.</p> <p>OEH also note that if subsidence is greater than that predicted in the SEE, then it is anticipated that appropriate rectification works be undertaken, and this is considered by others as part of this approval process.</p> <p>OEH notes that in its current form the floodplain management components of the planning proposal are generally supported by OEH to modification of MC.</p>	<p>OEH's statement is correct: there will be no adverse impacts on surface flooding of private properties as a result of the proposed modification.</p> <p>There will be no change to approved areas of underground extraction or to the approved rate or methods of mining under the proposed modification. Therefore, assessed and approved levels of predicted subsidence will remain unchanged.</p> <p>OEH's comments in relation to floodplain management are noted.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
EPA	<p>The EPA notes that LakeCoal would need to apply for a variation to its Environment Protection Licence (EPL) 1770 for the scheduled activities in relation to limit conditions for extraction of ROM coal.</p> <p><i>Noise Impacts</i></p> <p>The EPA reviewed the Noise Impact Assessment (NIA) provided with the EA and agrees with the project specific noise levels (PSNL) derived.</p> <p>The EPA recommends:</p> <ul style="list-style-type: none"> <li>that the proponent identify all feasible and reasonable mitigation measures that could be implemented in order to reduce noise levels to, or even below the PSNLs, particularly at Location 8 (Macquarie Shores);</li> <li>the proponent should also provide revised modelling with the identified mitigation measures included, to the EPA to support a variation to the License to increase the existing noise limits specified in the License if required; and</li> <li>identified mitigation measures should also be included in the statement of commitments.</li> </ul>	<p>EPL 1770 applies to CVC. MC's EPL 191 allows for production and handling of up to 2 Mtpa of coal. Therefore, variation of EPL 191 will not be required under the proposed modification.</p> <p>EPA's comments are noted.</p> <p>The proposed modification will only involve additional coal throughput using the existing infrastructure and will not change any aspect of the surface operations or road traffic generation which have the potential to generate noise emissions at potentially sensitive receivers. Whilst there will be a minor increase in production, this will be within the capacity of the existing plant and historic levels of production and, hence, the increase in the maximum annual rate of coal throughput at MC surface facilities is not predicted to increase noise emissions.</p> <p>Uncertainty in predictions made for the environmental assessment accompanying the application for MP06_0311 was identified during the assessment. As a consequence, the proponent took the initiative to reassess the potential noise impacts from MC. The NIA not only assumed that all plant and equipment would be operating simultaneously (see Section 5.2.2 of the EA) but also adopted a worst-case wind scenario which considered the highest potential noise levels at each assessment location, not just noise emission levels which result from meteorological conditions which are a feature of the area, ie in accordance with the INP. The NIA, therefore, provides a contemporary and conservative assessment of approved operations, incorporating the proposed modification.</p> <p>When the care and maintenance program ceases and MC once again becomes operational, LakeCoal has committed to engaging a suitably qualified person to prepare a report on potential noise mitigation measures. Consistent with Schedule 3, Condition 2 of MP06_0311, this will include the preparation of an action plan incorporating the implementation of any reasonable and feasible at source noise mitigation recommendations. This will include a consideration of Location 8 (Macquarie Shores).</p> <p>In view of the above, it is considered that the EPA's recommendations are not warranted.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p>EPA notes that it is likely that there will be numerous exceedances of the PSNL in the absence of mitigation.</p>	<p>MC is a long standing operation which commenced underground mining in 1960. As reported in Section 5.2.3 of the EA, even prior to the commencement of care and maintenance, monitoring found that noise emissions from MC are typically inaudible at the nearest residential locations or, if they are audible, are significantly below the relevant noise criteria as specified in MP06_0311.</p> <p>Further, prior to the commencement of care and maintenance MC did not receive complaints with regard to noise from their neighbours and has not received any submissions from the general public relating explicitly to noise in regards to the original assessment for MP06_0311 and subsequent modifications.</p> <p>As noted in the response above, the proponent took the initiative to provide a contemporary reassessment of the potential noise impacts from MC as approved, and under the proposed modification.</p> <p>The operational noise modelling completed for the assessment assumed that all plant and equipment would be operating simultaneously (see Section 5.2.2 of the EA). The NIA also adopted a worst-case wind scenario, which considered the highest potential noise levels at each assessment location, not just noise emission levels which result from meteorological conditions which are a feature of the area, ie in accordance with the INP. The NIA for the proposed modification is, therefore, highly conservative.</p> <p>The NIA concluded that there would be negligible change to noise emissions arising from the proposed modification compared to the approved development. In regards to Location 8, Macquarie Shores (which is specifically referenced in EPA's submission) the criteria stipulated in MP06_0311 are predicted to be achieved.</p> <p>As noted in the response above, Schedule 3 Condition 2 of MP06_0311 requires the preparation of a report on potential noise mitigation measures that must be prepared by a suitably qualified expert once the care and maintenance program ceases and MC once again becomes operational. The report must be accompanied by an action plan regarding the implementation of any reasonable and feasible at source noise mitigation recommendations identified in the report, if they are required. The proponent considers this process to be appropriate.</p>
	<p><i>Air Quality</i></p> <p>The EPA notes that there is no increase of ROM coal proposed to be handled on the premises at one time, and is of the opinion that the current conditions of consent are appropriate to manage air quality impacts.</p> <p>The EPA recommends that the conditions of consent include a requirement for continuous monitoring of PM<sub>10</sub>. The EPA is of the opinion that the current TEOM located between CVC and MC is sufficient to monitor air quality for both CVC and MC.</p>	<p>EPA's comments are noted.</p> <p>LakeCoal currently undertakes the continuous monitoring of PM<sub>10</sub> through the TEOM monitor between CVC and MC. LakeCoal has no objection to this being conditioned under the consent.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p><i>Water</i></p> <p>The EPA notes the EA has not assessed water management issues as these were addressed in previous development applications and there is no increase of ROM coal handling.</p> <p>The EPA recommends the proponent upgrade the water management system at the premises to ensure compliance with the Licence and to prevent the pollution of waters. This includes upgrading the clean water diversions to ensure that all clean (no contact with coal) run-on water is diverted around the premises. The upgrade must ensure that water discharged from the premises meets the Licence water quality and discharge limits.</p>	<p>The EA considered both groundwater and surface water management issues as a result of the proposed modification. However, given that there are no changes to approved mining operations and only minor surface disturbance (approximately 0.76 ha) as a result of vegetation clearing/disturbance for the extension/establishment of APZs, which will be undertaken in a way as to avoid any changes in surface water flows, it was concluded that there will be no groundwater interaction and minimal interaction with surface water. Therefore, further groundwater and surface water assessments of the proposed modification were not considered warranted. Notwithstanding, and as discussed further in the response to DPI Water below, LakeCoal commits to undertaking a review of MC's existing site water management system in consultation with the EPA.</p>
	<p>The EPA advises that that in addition to the above the proponent must be able to manage the volume of groundwater that is dewatered for discharge. At present during storm events the proponent can pump ground water to surface water management devices, reducing the available retention volumes. These devices are designed for the 90<sup>th</sup> percentile storm event five day period, which has been shown to be inadequate to achieve compliance with the Licence.</p>	<p>As discussed above, the proposed modification will not result in any changes to approved mining operations. Accordingly, there will be no interaction with groundwater and no additional water take as a result of the proposed modification.</p> <p>The majority of underground mine water at MC is discharged directly from the LDP (ie not through MC's existing surface water management system). The existing pipeline that transfers the underground water can be diverted via manual valves into MC's surface water management system if required. However, this is generally only undertaken if maintenance on the discharge point is required or it is deemed necessary to mix the underground mine water with surface flows to improve water quality in the system.</p> <p>LakeCoal commits to undertaking a review of MC's existing site water management system in consultation with the EPA.</p>
	<p>The EPA notes that it is in the process of finalising a pollution reduction program (PRP) at MC and once the data is analysed, the EPA may impose further monitoring and Licence concentration limits for metals in discharges, as well as undertaking further PRPs should pollutant concentrations result in non-trivial impact to the environment.</p>	<p>EPA's comments are noted. LakeCoal does, however, request that the EPA consult transparently with LakeCoal regarding any changes to its EPL and that any new or altered conditions/criteria are scientifically and environmentally justified.</p>
	<p>The EPA has recommended several conditions of approval in addition to the existing conditions for noise, air and water management.</p>	<p>A consideration of the EPA recommended conditions is provided in Table B.1 (Appendix B).</p>
DPI Water	<p>DPI Water notes that in the EA, Table 2.1 states that 'the proposed modification will not involve changes to the approved underground mining and, as a result, no changes to groundwater or aquifers will occur.' However no technical assessment has been provided in support of the modification to justify this claim.</p>	<p>The proposed modification does not involve any modification to approved areas of underground extraction or changes to the approved rate or methods of extraction. Therefore, the predicted impacts to groundwater or aquifers assessed and approved under MP06_0311 remain applicable to the proposed modification and no further technical assessment is required.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p>DPI Water requires LakeCoal demonstrate that they have or will be able to obtain sufficient water licences to account for water take over the projected life of the mine, inclusive of any take which may occur indirectly post mining. DPI Water is aware that the proponent currently holds a licence under Part 5 of the <i>Water Act 1912</i>, being 20BL172016. This licence has an entitlement of 450 ML which relates groundwater within the consolidated rock strata. The proponent must demonstrate the licensing requirements of the proposed modification and whether these requirements are met via existing licences.</p>	<p>As described in the response to the EPA above, the proposed modification will not result in any changes to approved mining operations and will result in only minor surface disturbance (approximately 0.76 ha) as a result of the vegetation clearing/disturbance for the extension/establishment of APZs, which will be undertaken in a way as to avoid any changes in surface water flows. Accordingly, there will be no groundwater interaction and minimal interaction with surface water, with no additional water take as a result of the proposed modification.</p> <p>The predicted mean annual water take from the underground workings is 318 ML (GHD 2011). Therefore, the current licence 450 ML entitlement is sufficient for the approved operations and, consequently, the proposed modification.</p>
	<p>DPI Water notes that MC is located within an area whereby surface and groundwater held in the alluvial sediments are regulated under the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009. MC is located within the South Lake Macquarie Water Source. It is noted that the proponent currently does not hold any shares within this water source. As such, DPI Water requests that LakeCoal provide the following information to support the modification and facilitate DPI Water making comment:</p> <ul style="list-style-type: none"> <li>the technical assessment undertaken to determine that the modification will cause no additional groundwater impacts;</li> <li>projected take of water for the duration of the mining operation from each water source; and</li> <li>the most recent annual groundwater management report.</li> </ul>	<p>As described above, there will be no groundwater interaction and minimal interaction with surface water as a result of the proposed modification.</p> <p>The most recent groundwater assessment (GHD 2011) for MP06_0311 (as modified) identified that there are two main mechanisms by which mining may impact the shallow aquifers:</p> <ul style="list-style-type: none"> <li>loss of groundwater via drainage through underlying fractures caused by mining activities; and</li> <li>reduction in groundwater levels caused by ground surface disturbance.</li> </ul> <p>The assessment determined that since bord and pillar mining was proposed, it was very unlikely that such fractures would develop and that there would be loss of groundwater from the alluvium or shallow sandstone aquifers, and any reduction in groundwater levels were unlikely based on the predicted subsidence (&lt;20 mm). Further, the hydrogeological model used in the assessment considered changes in alluvial groundwater at four locations. In each case the model predicted negligible change in groundwater levels. As there will be no potential for interaction with groundwater and only minimal changes to surface water as a result of the proposed modification, the findings of the 2011 assessment are still relevant, with no anticipated changes to surface and groundwater held in the alluvial sediments. Therefore, there is no requirement to hold shares within the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009 and further groundwater assessment is not warranted as a result of the proposed modification.</p> <p>There will also be no additional water take and, therefore, no requirement for LakeCoal to hold any shares within the South Lake Macquarie Water Source.</p> <p>There will be no impacts to groundwater as a result of the proposed modification which will remain unchanged from what was assessed and approved as part MP06_0311 (as modified) and, accordingly, a further groundwater assessment is not warranted.</p>

**Table 3.1**      **Summary of submissions and responses**

<b>Submission by</b>	<b>Comment summary</b>	<b>Response</b>
Mine Subsidence Board	The board has no objection to the 75W Modification 1 to MP06_0311 for MC and Section 96 Modification 2 to SSD-5465 for CVC.	The Mine Subsidence Board's comment is noted.
Darkinjung LALC	<p>Darkinjung provides the following points for DP&amp;E to consider.</p> <ul style="list-style-type: none"> <li>• The area of Lake Macquarie is part of a significant Aboriginal Cultural Landscape.</li> <li>• Aboriginal sites are connected to each other within the landscape.</li> <li>• This connection forms part of a complex Aboriginal cultural landscape; they hold spiritual and cultural importance to the local Aboriginal community through their physical link to our creator Baiame, the ancestors and the past.</li> <li>• This enables us to continue to practice our land based faith and religion, to keep our culture strong which gives us a sense of place and identity.</li> <li>• This connection attaches the community to land and traditions and allows us to carry out our responsibility and obligation to it. This strengthens bonds within our Aboriginal community and the living spirits of our ancestors which are imbued within the land.</li> <li>• Darkinjung would like to be involved with any assessments of the vegetation clearing of the main MC pit top area and other areas proposed for clearing within MC.</li> <li>• Continued protection of any Aboriginal sites within or within the vicinity of the project area.</li> <li>• Please keep Darkinjung LALC informed of any further information in relation to the consultation and assessment.</li> </ul> <p>Overall the Darkinjung LALC is satisfied with the recommendations within the SEE.</p>	<p>LakeCoal thanks Darkinjung LALC for its comments which are noted.</p> <p>In accordance with Schedule 3 Condition 18 of MP06_0311, an ACHMP was prepared in consultation with relevant Aboriginal stakeholders. The management plan includes mechanisms for ongoing Aboriginal stakeholder consultation.</p> <p>A copy of the draft EA, which included an assessment of the proposed vegetation clearing, was provided to the registered Aboriginal parties for comment. No comments were received from the Darkinjung LALC at that time. No further assessments of the clearing associated with the proposed modification are required at this time. However, if further Aboriginal heritage assessment at MC is required, consultation with the registered Aboriginal parties, including Darkinjung LALC, will be undertaken in accordance with the consultation requirements prescribed in the ACHMP.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
LMCC	<p><i>Air Quality</i></p> <p>LMCC notes that the application draws on a previous Air Quality Impact Assessment (AQIA — Holmes Air Sciences 2007), that has been contemporised to reflect the current extraction conditions. This AQIA was prepared for a coal extraction project of up to 1.1 Mtpa at MC, and the results were extrapolated to 1.3 Mtpa as appropriate. It is noteworthy that the AQIA did not identify any potential exceedances to TSP, or PM10 emissions. Nevertheless, using an indirect measurement process, the AQIA reported that at 1.1 Mtpa extraction, the annual average PM10 emissions as modelled, may be as high as 23 µg/m<sup>3</sup> (unknown destination). This modelled annual average PM10 level is close to the accepted impact criteria of 30 µg/m<sup>3</sup>. Given that this application will see the increase in production of coal from the site, from 1.1 to 1.3 Mtpa, and PM10 emissions from the previous application (extraction to 1.1 Mtpa) was not directly modelled, and further, was anticipated to be close to the accepted impact criteria, Council requests that a revised AQIA that more comprehensively investigates the impact assessment criteria be undertaken. Revised modelling should include the impact assessment of TSP, PM10, PM2.5, deposited dust, and other pollutants as relevant to the project. Modelling should be consistent with the guidelines provided in the Approved Methods.</p>	<p>The AQIA (Holmes Air Sciences 2007) inferred PM<sub>10</sub> concentrations from recorded TSP concentrations by Delta Electricity between 2004 and 2006, as there were no direct measurements available. The AQIA noted that annual average concentrations of PM<sub>10</sub> in mining areas are typically 40% but in the Central Coast the ratio may be closer to 50%. Therefore, based on an annual average TSP concentration of 45 micrograms per cubic metre of air (µg/m<sup>3</sup>) (maximum recorded value between 2004 and 2006), PM<sub>10</sub> concentrations were predicted to be in the range of 18 to 23 µg/m<sup>3</sup>.</p> <p>The 2007 AQIA concluded that emissions less than 2 grams per second (g/s) would not produce a measureable change in concentrations of particulate matter at potentially sensitive receivers. The qualitative air assessment for the proposed modification predicted an increase in TSP emissions of between 0.22 g/s and 0.37 g/s above the TSP concentrations predicted in the 2007 AQIA which is well below the 2 g/s emission rate. Total TSP emissions per year are predicted to increase by 13%. It is generally accepted that an increase in total emissions of between 10 and 20% will have a minimal increase in PM<sub>10</sub>.</p> <p>It is noteworthy that a more recent air quality assessment was undertaken by PAE Holmes (2013) for the CVC Mining Extension 1 Project. PAE Holmes (2013) predicted that cumulative concentrations (including emissions from MC) at nearby receivers would meet the relevant assessment criteria including that for annual average PM<sub>10</sub> which was predicted to be no higher than 22 µg/m<sup>3</sup> with a background level of 17.9 µg/m<sup>3</sup>. Further, monitoring records from 2014 show the recorded annual average PM<sub>10</sub> at MC was 14.8 µg/m<sup>3</sup>, well below the criterion.</p> <p>Given the above, it is considered that the increase in coal handling to 1.3 Mtpa will not result in an exceedance of the air quality assessment criterion and, therefore, further assessment is not warranted. This is reflected in EPA's submission that states that MC's current conditions of consent are appropriate to manage air quality impacts.</p>
	<p><i>Bushfire Management</i></p> <p>LMCC notes that any clearing for the purpose of bushfire protection should be conducted in a manner that does not result in exposed earth. Sufficient groundcover should be present to prevent erosion and in-filling of the dams that form an important part of the surface water system.</p>	<p>The proposed APZs were determined in accordance with the NSW Rural Fire Service's (RFS) <i>Planning for Bush Fire Protection Guideline</i>. The areas of groundcover that are proposed to be removed are limited to trails. Cleared areas will be managed in accordance with MC's erosion and sediment control procedures to minimise sediment laden runoff which are documented within the WMP.</p>



**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p><i>Ecology</i></p> <p>LMCC notes that the ecological assessment (Section 5.5) was undertaken on 8 April 2015 and states that targeted surveys were undertaken for threatened plants, however the threatened Black-Eyed Susan <i>Tetratheca juncea</i> is only able to be detected when in flower (peak time mid September to mid October). <i>T. juncea</i> is known to occur within one of the vegetation communities recorded at the site (Smooth-barked Apple-Red Bloodwood open forest HU621), and several records occur within the surrounding area (EMM unpublished data 2014 within Table F.2). The species cannot be presumed absent from the site and should therefore be included within the assessment of significance for TSC Act listed species (F.2) and EPBC Act listed species (F.3).</p> <p>LMCC notes that the threatened squirrel glider <i>Calyptorhynchus lathami</i> is known to occur within one of the vegetation communities recorded at the site (Smooth-barked Apple-Red Bloodwood open forest), and has been previously recorded from the Vales Point Power Station Perimeter Lands (EMM within Table F.2). It appears no nocturnal surveys were undertaken as part of the ecological assessment. The species cannot be presumed absent from the site and should therefore be included within the assessment of significance for TSC Act listed species (F.2).</p> <p>LMCC notes that the threatened glossy-black cockatoo <i>Petaurus norfolcensis</i> is known to occur within one of the vegetation communities recorded at the site (Smooth-barked Apple-Red Bloodwood open forest), and several records of the species occur within 10 km of the survey area (EMM within Table F.2). Preferred foraging habitat (black sheoak <i>Allocasuarina littoralis</i>) is listed as a dominant midstory species of Smooth-barked Apple-Red Bloodwood open forest within the description of the vegetation community at the subject site (Table 5.13). The species cannot be presumed absent from the site and should therefore be included within the assessment of significance for TSC Act listed species (F.2).</p>	<p>A targeted survey was completed for Black Eyed Susan (<i>Tetratheca juncea</i>) on 26 August 2015, ie during the flowering season of this species. The survey did not record any Black-eyed Susan. It is noted that the Environmental Impact Assessment Guidelines for Black-eyed Susan (NPWS 2000) recommend two to three targeted surveys during the flowering season to detect the species. A second targeted survey will be completed for Black-eyed Susan in November 2015, prior to disturbance for the APZs. In the unlikely event that a population is present or if individuals of the species are found, they will be marked in the field and protective fencing (which allows for future plant growth) will be erected to ensure that they are not damaged during the subsequent APZ development activities or future annual mowing of the understorey. Therefore, the proposed modification is not expected to result in significant impacts on the Black-eyed Susan.</p> <p>It is acknowledged that the threatened Squirrel Glider (<i>Petaurus norfolcensis</i>) has been recorded at VPPS. However, as stated in Section 5.5.2 (i)(b) of the EA, the areas to be disturbed and surrounding areas do not contain any hollow-bearing trees. Therefore, habitat for the Squirrel Glider is absent and an assessment of significance is not required.</p> <p>It is acknowledged that the Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>) feeds on Black She-oak which occurs in the Smooth-barked Apple Red Bloodwood Open Forest at the site. The EA incorrectly reported that Black She-oak was a dominant midstorey species at the site, as only two individuals were recorded. Targeted searches were completed on 26 August 2015 to detect feeding signs (ie chewed Black She-oak cones) under the two trees. No feeding signs were detected. In consideration of the above, the site is considered to have a low potential to support the Glossy Black-cockatoo and, therefore, an assessment of significance is not required.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p>LMCC notes that the Swamp Oak Floodplain Forest EEC description (Section 5.5.1.vii) includes paperbarks <i>Melaleuca</i> sp. as subordinate trees. The threatened biconvex paperbark <i>Melaleuca biconvexa</i> grows in damp places, often near streams or low-lying areas on alluvial soils of low slopes or sheltered aspects. Biconvex paperbark (as with other melaleucas) can be identified year-round, and the occurrence or otherwise of threatened melaleucas within this EEC should be identified.</p> <p>LMCC notes that the impact assessment (Section 5.5.2) states that trees will only be selectively removed within the proposed APZ to meet the criteria of 15% cover in the IPA and 30% cover in the OPA, however lacks specific information regarding trees proposed for removal and retention. Trees should be marked on a tree retention or site analysis plan, flagged in the field, individually numbered, and accompanied by a correlating tree schedule. This allows proper assessment of trees that are on site, and provides a clear reference point when individual trees are being considered for removal/retention. The retention of large, structurally sound eucalypts and black sheoak at the subject site should be prioritised when considering trees for retention and removal for the establishment of an APZ.</p> <p>LMCC does not support the clearing or disturbance of endangered ecological communities for the establishment of a bushfire asset protection zone. The LMCC Flora and Fauna Survey Guidelines Appendix 8.5 require a 20 m vegetated buffer to significant vegetation (such as EECs) from development impacts including asset protection zones. In this case, the asset needing protection is already built (as opposed to a new asset proposed for development) and relocating the asset is not possible. Provision of compensatory replanting and weeding within other areas of swamp oak floodplain forest EEC at the subject site should be implemented within a Vegetation Management Plan. LMCC requests that the Statement of Commitments (Table 6.1) should be updated to reflect this.</p>	<p>The threatened Biconvex Paperbark has not been recorded within 10 km of the site, nor was it recorded during surveys on 8 April or 26 August 2015. As it is a conspicuous species that was not recorded during two surveys, it is unlikely to occur at the site. Therefore, an assessment of significance is not required.</p> <p>LakeCoal does not believe that a tree retention plan is required for the proposed activities. However, LakeCoal will engage a suitably qualified ecologist prior to undertaking any APZ clearing activities who will be responsible for marking any significant trees that should be retained, confirming the location of any threatened species have been adequately fenced, and monitoring the canopy cover meets the intent of the IPA and OPAs.</p> <p>As stated in the EA, LakeCoal has committed to undertaking measures to manage biodiversity during APZ maintenance. These are similar to LMCC's suggestions, and comprise:</p> <ul style="list-style-type: none"> <li>• pre-disturbance surveys by an ecologist to determine the important components of vegetation communities and fauna habitats that should be preferentially retained in the APZs;</li> <li>• pre-clearance surveys for threatened flora species, and installation of delineation fencing around threatened flora populations (if found) to ensure their protection during development and maintenance of the APZs;</li> <li>• measures for APZ maintenance that include weed control; and</li> <li>• relocation of suitable felled trees adjacent to the APZs to create additional fauna habitat.</li> </ul> <p>As stated above in the response to OEH, the APZs will reduce the bushfire risk to native vegetation surrounding the pit top area. As this vegetation disturbance is unavoidable, the applicant will investigate the following options for biodiversity offsets:</p> <ul style="list-style-type: none"> <li>• provide \$10,000 of funding, which is equivalent to the biodiversity being lost (ie 5 credits x \$2,000 per credit) to existing environmental programs at the site which benefits the Swamp Oak Floodplain Forest EEC; or</li> </ul>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
		<ul style="list-style-type: none"> <li>consult with OEH to identify a suitable conservation program and provide \$10,000 of funding; or</li> <li>purchase and retire 5 credits on the Biobanking register.</li> </ul> <p>These options will be considered by the applicant in consultation with OEH and will reflect OEH's 'Approved BioBanking Assessment Methodology 2014'. The option that achieves the greatest benefit to the biodiversity impacted by the proposed modification will be selected.</p>
WSC	<p><i>Ecology</i></p> <p>WSC notes that a hollow bearing tree register detailing tree species, hollow size, orientation, type (eg branch, spout, base), retain or remove, would be useful in assessing impact.</p> <p>WSC requests surveys for several of the cryptic threatened species which should also target <i>Diuris praecox</i>.</p> <p>WSC requests that populations should be confirmed to be in flower prior to the surveys. It also requests that where threatened species occur in the APZ, LakeCoal should consider providing a buffer around plants and maintaining corridors for pollinators rather than just protection from impact.</p> <p>WSC notes that the EA did not include additional offset to compensate for the additional direct and indirect impacts on Swamp Sclerophyll Forest EEC or threatened species habitat, as per the NSW Biodiversity Offsets Policy for Major Projects (OEH 2014).</p> <p>WSC requests that the biodiversity management plan (BMP) should include a protocol to protect animal welfare, eg an ecologist to supervise clearing vegetation such as hollow bearing trees.</p> <p>WSC requests that hollow bearing trees being removed to establish the APZ should be sectionally dismantled, the hollows recovered for reinstallation (eg cap and attach strapping) with retained vegetation, in preference to the installation of nesting boxes where possible.</p>	<p>As stated above, no hollow bearing trees occur in the APZs. Therefore, a hollow-bearing tree register is not required.</p> <p>During the targeted survey on 26 August 2015, it was determined that habitat was absent for the Rough Doubletail (<i>Diuris praecox</i>), as the areas to be disturbed were not located on slopes or hillsides, and are flat in topography. As the species is deemed unlikely to occur, the proposed modification will not result in significant impacts for the Rough Doubletail.</p> <p>A second targeted survey is currently planned to be undertaken in Quarter 4 2015 for the Leafless Tongue Orchid, prior to disturbance for the APZs. It is noted that reference populations of the Leafless Tongue Orchid will be visited to confirm that they are in flower prior to the Quarter 4 2015 targeted survey. If individuals of the species are found, they will be marked in the field and protective fencing (which allows for future plant growth) will be erected to ensure that they are not damaged during the subsequent APZ development activities or future annual mowing of the understorey.</p> <p>Offsets and contributions are discussed in the above response to OEH.</p> <p>As mentioned above, hollow-bearing trees do not occur within the area to be disturbed at MC and, therefore, an ecologist is not required to supervise clearing activities.</p> <p>As mentioned above, hollow-bearing trees do not occur within the area to be disturbed at MC and, therefore, nest boxes are not required.</p>

**Table 3.1**      **Summary of submissions and responses**

Submission by	Comment summary	Response
	<p>WSC requests that removal of vegetation within the APZ should consider maintaining species diversity (refer to Council's condition in regard to removal of trees with poor health first), should not result in the removal of hollow bearing trees within the APZ, and there should be an appropriately qualified person assisting in tree selection and removal taking into consideration the need to protect surrounding vegetation.</p> <p>WSC requests that the BMP should also include hygiene protocol to minimise the risk of transfer (refer to Council's condition) and weed management along the newly created interface between the APZ and retained vegetation, in particular the EEC.</p>	<p>As stated in the EA, a suitably qualified ecologist will be present to determine the trees and features to be retained in the APZ prior to clearing.</p> <p>MC's current land management plan already details weed control measures to be undertaken across the site. LakeCoal will continue to undertake weed management activities at MC, including within the newly created interface between the APZ and retained vegetation in future weed management campaigns.</p>
	<p><i>Transport</i></p> <p>WSC notes that neither the CVC or MC approvals specifically addressed staff parking (in reference to increase staff at CVC).</p> <p>As MC's approval in condition 21 has a requirement to upgrade the Ruttleys Road/MC access road intersection to a types CHR treatment (SCC/69/2011), clarification is sought that the proposed modification does not include an increase of staff at MC.</p>	<p>The on-site car parking areas at CVC has capacity to accommodate the increase in staff proposed under the modification to SSD-5465. No increase in staff at MC is proposed.</p> <p>Condition 21 of MC's project approval (MP06_0311) requires the upgrade of the Ruttleys Road/MC access road intersection to a type CHR treatment once employee numbers at MC reach 70. The corresponding modification to MP06_0311 does not require more than 20 full time employees at MC and, therefore, the upgrade to a CHR intersection will not be triggered by the proposed modification. Notwithstanding, LakeCoal is aware of the requirement under MP06_0311 and would undertake the intersection upgrade prior to the workforce once again reaching 70 full time personnel.</p>

## Appendix A

### Revised statement of commitments

---



**Table A.1 Commitments**

<b>Aspect</b>	<b>Commitment</b>
Noise	When the care and maintenance program ceases and MC becomes operational, a report on potential noise mitigation measures will be prepared by a suitably qualified expert. An action plan will be prepared regarding the implementation of any reasonable and feasible at source noise mitigation recommendations based on the outcomes of the report.
Ecology	<p>The following measures to manage the impacts of vegetation clearing/disturbance associated with the APZ requirements will be ongoing:</p> <ul style="list-style-type: none"> <li>• weed management;</li> <li>• large trees will be retained as a priority where possible;</li> <li>• felled trees will be relocated adjacent to the APZs to create additional fauna habitat;</li> <li>• any injured fauna will be taken to the nearest veterinary hospital for treatment before release; and</li> <li>• an ecologist will complete a pre-disturbance survey to determine important components of the Swamp Oak Floodplain Forest EEC for retention in the APZs.</li> </ul> <p>LakeCoal will investigate the following options for biodiversity offsets:</p> <ul style="list-style-type: none"> <li>• provide \$10,000 of funding, which is equivalent to the biodiversity being lost (ie 5 credits x \$2,000 per credit) to existing environmental programs at the site which benefits the Swamp Oak Floodplain Forest EEC; or</li> <li>• consult with OEH to identify a suitable conservation program and provide \$10,000 of funding; or</li> <li>• purchase and retire 5 credits on the Biobanking register.</li> </ul> <p>These options will be considered by the applicant in consultation with OEH and will reflect OEH's 'Approved BioBanking Assessment Methodology 2014'. The option that achieves the greatest benefit to the biodiversity impacted by the proposed modification will be selected.</p>
Water	LakeCoal will undertake a review of MC's existing site water management system in consultation with the EPA.
Aboriginal heritage	Activities at MC will continue to be managed in accordance with MC's Aboriginal cultural heritage management plan (ACHMP). Given the current ACHMP for MC is integrated with other Centennial sites, a separate ACHMP will be developed for MC.
Rehabilitation	Rehabilitation at MC will be undertaken in accordance with MC's mining operations plan, which will be updated to include any changes as a result of the proposed modification.





## Appendix B

### EPA recommended conditions of approval - consideration

---



**Table B.1 EPA recommended conditions of approval - consideration**

<b>EPA recommended condition</b>	<b>EPA proposed condition(s)</b>	<b>LakeCoal response</b>
<i>Noise</i> <b>L5.1-5.8</b>	The recommended conditions of approval reflect the outcomes of the noise assessment for the proposed modification and are consistent with the current conditions of approval.	No objection to the recommended conditions.
<i>Noise monitoring requirements</i> <b>M4.1</b>	As above.	No objection to the recommended condition.
<i>Noise reporting condition</i> <b>R4.1</b>	<p>‘The proponent must submit to the EPA a noise compliance assessment report at the end of each reporting period. The report must be submitted with the Licence Annual Return. The report must be prepared by a suitably qualified and experienced acoustical consultant and which:</p> <ul style="list-style-type: none"> <li>a) details the noise monitoring undertaken in accordance with condition M4;</li> <li>b) assesses compliance with noise limits presented in condition L5.1; and</li> <li>c) outlines any management actions taken within the monitoring period to address any exceedances of limits specified in condition L5.1.’</li> </ul>	<p>LakeCoal is proposing that the first paragraph be reworded to the following:</p> <p>‘The proponent must include an annual noise compliance assessment report as part of the site’s Licence Annual Return.’</p>
<i>Air monitoring requirements</i> <b>P1.1, M2.2 and M3.1</b>	The recommended conditions are consistent with MC’s existing conditions of approval.	n/a
<i>Air reporting condition</i> <b>R5.1</b>	<p>‘The proponent must submit to the EPA an air quality monitoring report at the end of each reporting period. The report must be submitted with the Licence Annual Return. The report must be prepared by a suitably qualified and experienced acoustical consultant which:</p> <ul style="list-style-type: none"> <li>a) details the air quality monitoring undertaken in accordance with M2.2;</li> <li>b) assesses compliance with ambient air quality monitoring guidelines and standards;</li> <li>c) includes assessment of the meteorological conditions; and</li> <li>d) if ambient guidelines or standards are exceeded, details actions to mitigate dust generated from the premises in an effort to improve local ambient air quality.’</li> </ul>	<p>The EPA notes in its comments that there are unlikely to be any changes in air quality impacts from the proposed modification and states that:</p> <p>‘The EPA is of the opinion that the current conditions of consent are appropriate to manage air quality impacts from this project’.</p> <p>Accordingly, LakeCoal is of the opinion that this condition is not warranted. LakeCoal is proposing that it will continue to report air quality monitoring data in MC’s Annual Review and, if required, a copy of the report can be provided to EPA annually.</p> <p>It is also noted that the condition incorrectly references ‘a suitably qualified and experienced acoustical consultant’.</p>

**Table B.1**      **EPA recommended conditions of approval - consideration**

<b>EPA recommended condition</b>	<b>EPA proposed condition(s)</b>	<b>LakeCoal response</b>
<i>Water management</i> <b>U1.1</b>	<p>'The proponent must upgrade the water management system at the premises to ensure that:</p> <ul style="list-style-type: none"> <li>a) All clean water (that is surface water which has not come into contact with coal or disturbed areas) is diverted around the premises. The design and implementation of works must be undertaken by an appropriately qualified and experienced person.</li> <li>b) Water quality limits and volumetric discharge limits as specified in the Licence are met at all times.'</li> </ul>	<p>LakeCoal is proposing that the condition be reworded to require the proponent to undertake a review of the site's water management system in consultation with the EPA.</p> <p>LakeCoal would be accepting of the review being undertaken by an appropriately qualified and experienced person. The timing of any recommendations from the review would be agreed to in consultation with EPA following the review.</p> <p>If, however, the EPA are unwilling to modify the proposed condition, it is requested that the word 'all' in sub clause (a) be preceded by 'to the extent practicable' as to divert 'all' would be practically impossible.</p>





[www.emgamm.com](http://www.emgamm.com)

**SYDNEY**  
Ground Floor, Suite 1, 20 Chandos Street  
St Leonards NSW 2065  
T 02 9493 9500 F 02 9493 9599

**NEWCASTLE**  
Level 5, 21 Bolton Street  
Newcastle NSW 2300  
T 02 4927 0506 F 02 4926 1312

**BRISBANE**  
Suite 1, Level 4, 87 Wickham Terrace  
Spring Hill Queensland 4000  
T 07 3839 1800 F 07 3839 1866



LakeCoal