

APPENDIX D: ADDITIONAL AGENCY RESPONSES

Comments on Response to Submissions

1. Heritage Council response dated 26 May 2016
2. Mid-Western Regional Council response dated 6 June 2016
3. Department of Primary Industries response dated 8 June 2016
4. Environment Protection Authority response dated 10 June 2016
5. Office of Environment and Heritage response titled "*Response to Submissions – Wilpinjong Extension Project (SSD 6764)*"
6. Roads and Maritime Services Response titled "*SSD6764: Wilpinjong Extension Project; Response to Submissions*"

Supplementary Advice

7. Department of Primary Industries response dated 15 July 2016
8. Office of Environment and Heritage response dated 16 September 2016



Heritage Council

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File No. EF15/9178
Our Ref. DOC16/251907

Matthew Riley
Senior Planning Officer
Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Riley,

Request for Heritage Council Comment on Wilpinjong Extension Project (SSD 6764) – Response to Submissions report.

Thank you for the invitation to the Heritage Council of NSW to comment on and recommend conditions of approval for the Wilpinjong Extension Project (herein referred to as the 'Project Area'). I am responding as the Delegate of the Heritage Council of NSW. The Project Area is within the Mid-Western Regional Council Local Government Area (LGA).

A review of the documentation associated with the Response to Submissions (RTS) has been undertaken, in particular the:

- 'Wilpinjong Extension Project Response to Submissions prepared by Resource Strategies dated May 2016.

The Project Area does not contain items listed on the State Heritage Register, S170 Heritage and Conservation Registers or items that are locally listed on a Local Environment Plan. A total of 21 items of local historic heritage significance, some with associated archaeological relics were identified in or within a 2 km radius of the Project Area. The heritage items identified included cottages, houses, agricultural buildings, churches and fences which contribute to the understanding of the Wilpinjong and Wollar local areas.

The Heritage Division has previously made a number of recommendations for the project to ensure adequate assessment of the archaeological aspects of the project, including the need for further detail on the proposed test excavation method for the Shale Oil Mine, specifically the Caretakers Cottage. The Response to Submissions report considered that the current recommendations were sufficient and that no further detail was required at this stage, however the report also noted that a condition could be proposed which requires consultation with the NSW Heritage Council following the test excavation of this area. Consultation prior to test excavation, including for the archaeological method, is considered a more appropriate condition to ensure excavations occur to an appropriate standard.

It is, therefore, recommended that the following conditions be included in any approval for this project to ensure archaeological excavations are adequately conducted during the project:

1. Prior to the start of test and/or salvage excavation, an appropriate archaeological assessment method including a research design is developed in consultation with the Heritage Council of NSW or it's Delegate to guide physical archaeological excavations at the Shale Oil Mine and Caretakers Cottage;
2. The nominated Excavation Director shall meet the criteria endorsed by the Heritage Council of NSW at the appropriate significance level;
3. Results of the archaeological works shall be presented in a final excavation report within one (1) year of completion of all archaeological works on the site and shall be submitted for the information of the Heritage Council of NSW; and
4. A suitable artefact repository for the ongoing retention for any relics of local heritage significance which are recovered during excavations for this activity must be identified in the report; and a copy of the excavation report shall be retained with the relics at all times.

Should you have any queries, please contact Rebecca Newell, Archaeologist, at the Heritage Division on (02) 9873 8500 or at Rebecca.Newell@environment.nsw.gov.au.

Yours sincerely



Rajeev Maini
Acting Manager, Conservation
Heritage Division
Office of Environment and Heritage
AS DELEGATE OF THE NSW HERITAGE COUNCIL OF NSW
26 May 2016



MID-WESTERN REGIONAL COUNCIL
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6 June 2016

Matthew Riley
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Riley

RESPONSE TO SUBMISSIONS: WILPINJONG EXTENSION PROJECT

Thank you for the opportunity to comment on Wilpinjong Coal Mine Pty Ltd's (WCPL) *Response to Submissions* regarding the proposed Extension Project which is currently before NSW Department of Planning and Environment for assessment.

Mid-Western Regional Council (MWRC) does not have any additional comments to add to its original submission dated 9 March 2016 and is satisfied with WCPL's response. MWRC will continue to work closely with WCPL, particularly in regards to the improvements to the road network and the social and economic impacts of the mine.

If you have any questions regarding this letter please contact the General Manager Brad Cam on (02) 6378 2850

Yours sincerely

A handwritten signature in black ink, appearing to read "Julie Robertson".

JULIE ROBERTSON
DIRECTOR - DEVELOPMENT



Department of Primary Industries

OUT16/22553

Mr Matthew Riley
Resource Assessments
NSW Department of Planning and Environment
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Matthew.riley@planning.nsw.gov.au

Dear Mr Riley

Wilpinjong Extension Project (SSD 6764) Comment on the Response to Submissions Report

I refer to your email dated 23 May 2016 to the Department of Primary Industries in requesting comment on the above matter. Comment has been sought from relevant divisions of DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

DPI has reviewed the Response to Submissions and provides the following comments:

Water Licensing

It is noted that Water Access Licence (WAL) 21499 is used dually to account for passive take from the Wollar Creek Alluvium from mining activities whilst is also used for agricultural activities by Peabody Pastoral Holdings. It is recommended that the metering results from 20CA211216 are also reported in the Annual Environmental Management Report. This will ensure transparency of water use for agricultural activities and allow for demonstration that sufficient entitlement is held by the proponent for passive take from this water source.

DPI Water previously sought clarification on whether a WAL was required from the Upper Goulburn River Water Source. The RTS states "that the predicted take of water from the alluvium associated with the Upper Goulburn River Water Source would be negligible." It is requested that this "negligible" take be quantified to facilitate DPI Water providing advice as to the appropriate licensing strategy.

Community Consultation

It had been raised at the Community Consultation Meeting at the Wollar Community Hall, 23 February 2016 that limited opportunities had been provided to the community to be included in the private bore monitoring program. It has been proposed by the proponent to undertake additional community engagement through the Community Consultative Committee (CCC) to address this issue.

DPI Water considers the CCC an appropriate platform to address this issue, and it is recommended that this engagement be demonstrated in the CCC meeting minutes.

Similarly it is recommended that the proponent provide regular updates on the groundwater monitoring results at the CCC meetings. This should include analysis of monitored results against predicted impacts.

Make Good Provisions

DPI Water is satisfied with the level of consultation with the Wollar Public School by the proponent and with the proposed contingency measures. However, it is recommended that the project approval include a condition requiring 'make good' provisions or compensatory water supply. Such provisions should also be detailed in the updated Water Management Plan which should be updated in consultation with DPI Water.

Aquifer Interference Minimal Impact Water Quality Consideration

DPI Water, after reviewing the Environmental Impact Statement (EIS) for the project, recommended that a supplementary report should be provided to demonstrate that water quality impacts will be within category 1 impacts, as defined by the Aquifer Interference Policy (AIP). As such the proponent has attempted to address this request through Appendix D of the RTS.

The data set presented in Figure 1 of Appendix D differs to that presented in the EIS. The data set provided in the RTS has increased salinity values, and therefore significantly adjusts the benchmark, for salinity concentration used to evaluate whether an impact or significant trend is occurring.

The Proponent attributes the increased salinity to a combination of Cumbo Creek inflow and prevailing climate. It is noted that the peak values for Cumbo Creek as presented in Table 3.17 fall considerably short of the peak salinity presented in Figure 1. In contrast, it appears that salinity in Cumbo Creek (Figure 3.25, EIS Surface Water Assessment) was generally higher between the years 2008 - 2010 when the residual mass was trending upwards (Figure 1), relative to the generally lower salinity values around 2013 -2014 within a declining residual mass period. Also the reported salinity values of around 3500 to 4000 $\mu\text{S}/\text{cm}$ for the alluvial aquifer during the corresponding 2007 peak salinity period are not reflected in the updated data set.

In order to address the AIP assessment criteria, the interpretation of salinity and any climatic versus anthropogenic impact trends should have a statistical basis rather than a visual appraisal. This is of particular importance due to the noted data gaps and possible different author interpretations.

To address AIP minimal impact water quality consideration a detailed statistical assessment that supports the interpretation should be submitted to DPI Water for review. To support this submission the Proponent should also supply both the raw data set as presented in the EIS and a copy of the Proponent's complete data set for the Wilpinjong Creek and Cumbo Creek stream gauges.

The data set is influenced by discharge from the reverse osmosis plant which lowers salinity downstream. However such discharges will not occur in the post mining scenario. As such further information is required from the proponent regarding the definition of the mean river salinity for the periods prior to, during and post mining phases. This information is important in assessing the AIP water quality impact consideration.

Further, consideration should be given to water quality & salinity triggers in the relevant surface water sources, to ensure appropriate studies and management measures can be applied should significant changes to salinity occur.

For further information please contact Hannah Grogan, Water Regulation Officer on (02) 4904 2516 or by email hannah.grogan@dpi.nsw.gov.au.

Yours sincerely



Mitchell Isaacs
Director, Planning Policy & Assessment Advice
8/6/2016



Your reference :
Our reference : EF13/3856; DOC16/56010-13
Contact : Ms Sheridan Ledger; (02) 6332 7608

Mr Matthew Riley
Senior Planning Officer
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

10 June 2016

Dear Mr Riley

WILPINJONG COAL MINE – EXTENSION PROJECT (SSD 6764)

EPA COMMENT RESPONSE TO SUBMISSIONS REPORT (RTS)

I refer to your email of 23 May 2016 requesting the Environment Protection Authority (EPA) provide comment regarding the Response to Submissions Report (the RTS) for the proposed Wilpinjong Coal Mine Extension Project (the Project).

As requested, the EPA has considered the RTS for the Project in relation to the environmental issues for which the EPA has the primary legislative responsibility, being air and noise quality impacts, including blast overpressure and vibration, surface water and waste management.

Please find in Attachment 1 the EPA's comments regarding the RTS which includes general comments on the adequacy of the additional informational provided in the RTS.

The EPA requests the opportunity to review the draft Director-General's Environmental Assessment report for the Project and to comment on any conditions of consent, should approval be recommended by the DPE.

Should you have any further enquiries in relation to this matter please contact Sheridan Ledger at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7608.

Yours sincerely


DARRYL CLIFT
Head Central West
Environment Protection Authority

**ATTACHMENT 1 – EPA COMMENT WILPINJONG EXTENSION PROJECT COAL
RESPONSE TO SUBMISSIONS REPORT (RTS)**

Air Quality

The EPA requested additional information on four aspects of potential impacts to the air environment:

- explicitly estimate emissions from diesel engines;
- review and revise the adopted background concentration for PM_{2.5};
- confirm commitment to strategies set out in the air quality management plan, especially cessation of activity in pit 8 under adverse weather conditions; and
- confirmation of the status of the Spontaneous Combustion Management Plan.

These aspects are discussed below:

1. Diesel engine emission estimates

The EPA requested explicit estimates of emissions from diesel engines used for the mine, and updated impacts to the air environment based on the revised total estimated emission.

The response to submissions provides explicit estimation of emissions from diesel engines as appendix C, *'Additional Air Quality Analysis for the Wilpinjong Extension Project'*, Todoroski Air Sciences, 2nd May 2016. Analysis indicates that explicit estimation of emission from diesel engines changes total emissions by less than 1.1 % and is assessed as making no material change to estimated impacts.

2. Background concentration for PM_{2.5}

The EPA requested review and revision of the background concentration of PM_{2.5} adopted for the project. The adopted background, 3.2 µg/m³ is lower than any value recorded by the OEH monitoring network and requires strong justification or amendment.

Appendix C of the RTS provides analysis of available PM_{2.5} observations. Using data from non-urban locations in the upper Hunter valley, the estimated background PM_{2.5} has been revised to 4.3 µg/m³.

3. Commitment to strategies set out in the air quality management plan, especially cessation of activity in pit 8 under adverse weather conditions

The EPA noted the potential for additional exceedences of the 24-hour PM₁₀ criterion from operations in pit 8, and that cessation of dust-generating activity mitigates this potential impact. In responding to the EIS, the EPA requested confirmation that the air quality management plan would be enacted as drafted, particularly cessation of activity in pit 8 under adverse weather conditions.

The RTS did not confirm a commitment to the cessation of activity in pit 8 under adverse weather conditions as proposed in the air quality impact assessment (p 48). Assessment shows that impacts are expected and therefore must be managed. The EPA recommends that approval be granted conditional on noting that reactive management is necessary and must be implemented as a strategy to ensure compliance with the air quality criteria for the Project.

4. Confirmation of the status of the Spontaneous Combustion Management Plan

The EPA requested confirmation of the status of the submitted Spontaneous Combustion Management Plan (SCMP). Peabody (2016) advises that a revised SCMP was lodged in July 2015 with the Department of Planning and Environment, and was approved in 2016.

Noise

The EPA previously requested further assessment regarding low frequency content and the application of a modifying factor to account for major low frequency content. The modifying factor, if it applies, is added to the measured A-weighted mine contribution: the A-weighted level, including the modifying factor, is then compared to the noise limit.

The RTS report has gone to significant lengths to demonstrate that the low frequency modifying factor in the NSW Industrial Noise Policy (INP) will not apply. The RTS report also states an understanding that the EPA has been monitoring noise in Wollar and to date found Wilpinjong compliant; the report then erroneously assumes that this means that no low frequency modifying factor has applied. In fact, the EPA's monitoring at Wollar shows that the INP low frequency modifying factor does apply, consistent with the EPA's experience at other coal mines where the EPA has undertaken similar monitoring.

The INP is currently under review, with the draft Industrial Noise Guideline (DING) having been exhibited for public consultation. The draft Guideline presents a revised approach to low frequency noise. If the Project is approved, the EPA intends to set the predicted noise levels as licence limits and to include, as usual, that the modification factors for annoying noise characteristics, including major low frequency content, must be applied, as appropriate, to measured noise levels from the mine, in accordance with the INP or government policy that supersedes the INP.

The EPA notes that in circumstances where a noise assessment has not been taken into account a modifying factor and the modifying factor is subsequently required to be applied, there are potentially significant implications, not only with respect to compliance with noise limits but also potentially with the application of acquisition and mitigation rights. The EPA is concerned that the noise impact assessment component of the EIS and RTS for the Project do not adequately consider these implications.

Surface Water Management

The EPA notes the commitment made in the RTS to size sediment dams in accordance with the design criteria for Type F sediment basins described in *Managing Urban Stormwater, Soils and Construction* (Landcom, 2004) and based on a 95th percentile 5 day rainfall event for the Central Tablelands area. Any sediment dams which will discharge offsite, will be required to be included on environment protection licence 12425 for the Mine. The Mine will therefore be required to manage and maintain each of the dams in accordance with the requirements of the EPA.

Waste

Sewage Disposal

The EPA acknowledges that irrigation of wastewater would be directed to unmined grassed/vegetated areas for irrigation during the early years of pit 8, rather than being applied to rehabilitation areas. Additional wastewater irrigation areas will be required to be included as licence points on environment protection licence 12425 for the Mine. The Mine will therefore be required to manage and maintain each of these application areas in accordance with the requirements of the EPA.

Old Shale Oil Mine

The EPA notes the commitment to co-dispose waste from the Historical Shale Oil Mine Complex with waste rock in the mine voids.



Office of
Environment
& Heritage

Mr Matt Riley
Senior Planning Officer
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Matt

Response to Submissions – Wilpinjong Extension Project (SSD 6764)

I refer to your request received on 25 May 2016 seeking comment from the Office of Environment and Heritage (OEH) on the Response to Submissions for the Wilpinjong Extension Project.

The matters raised by OEH have largely been addressed by the proponent although OEH still has concerns about several issues, as discussed in Attachment 1. OEH suggests that the Department of Planning and Environment (DP&E) includes our recommendations as part of the Conditions of Consent for the project. OEH will continue to liaise with Wilpinjong Coal Pty Ltd in respect to the suitability of the proposed offset strategy.

If you have any questions regarding this matter further please contact David Geering on 6883 5335.

Yours sincerely

STEVEN COX
Senior Team Leader Planning, North West Region
Regional Operations

Attachment 1: OEH response to the Wilpinjong Extension Project Response to Submissions

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Wilpinjong Extension Project

OEH response to Response to Submissions

Acronyms

BAR – Biodiversity Assessment Report

FBA – Framework for Biodiversity Assessment

OEH – Office of Environment and Heritage

WCPL – Wilpinjong Coal Pty Ltd

1. Reporting requirements of the FBA

Recommendation

- 1.1 WCPL provide OEH with all digital shape files, spatial data and plot data (excel and field data sheets) relating to the Wilpinjong Extension Project.

Appendix 7, Reporting requirements of the FBA, provides the minimum information requirements for the Biodiversity Assessment Report. OEH notes a number of omissions of these minimum information requirements from the BAR for the Wilpinjong Extension Project. OEH is unable to complete a full assessment of impacts of the development until these are received.

Omissions of information required include:

- Landscape value score components;
- Digital shape files for maps and spatial data;
- Plot and transect field data; and
- Maps showing state, regional and local biodiversity links.

2. Calculation of Ecosystem Credits

Recommendation

- 2.1 The credit calculation be re-calculated using the site based landscape value assessment method.

As indicated in our previous submission, the landscape value score has been incorrectly calculated using the linear based development landscape value assessment method in the credit calculator. This method is to be used for linear major projects such as coal seam gas, pipe lines and electricity transmission lines. The landscape value score should have been calculated as a site based development.

OEH notes WCPL's claim that OEH advised that the linear assessment method was acceptable for this project however OEH has been unable to locate any record of such advice.

3. Impacts to Munghorn Gap Nature Reserve

Recommendation

- 3.1 A buffer of 50 m is maintained between any open cut mining operations or infrastructure and the adjacent Munghorn Gap Nature Reserve.

A 50 m buffer is required to minimise connectivity impacts and to buffer Munghorn Gap Nature Reserve from impacts. Similarly stage 2 of the Moolarben Coal Project has a condition of consent imposing a 50 m buffer between the open cut operations and the nature reserve.

4. Potential impacts to Eastern Bentwing-bats

Recommendations

- 4.1 A monitoring program, employing remote cameras and ultrasonic detectors, be established to determine whether the mine adit is used all year round (or purely as a maternity site) and to assess the impact of blasting vibration on bats utilising the adit.
- 4.2 WCPL provide details of their proposed engineering solution(s) to main a long-term opening to the adit.
- 4.3 That WCPL's proposed reduced blasting vibration measures be employed in the vicinity of the adit to minimise disturbance to bats.

Table 8 of Attachment D of the BAR (Wilpinjong Extension Project Terrestrial Fauna Baseline Report) indicates that late or post-lactating female Eastern Bentwing-bats as well as sub-adult (juvenile) females were captured at the adit. This report concluded that the adit is potentially used as a maternity roost for Eastern Bentwing-bats.

Eastern Bentwing-bats are dependent upon maternity caves that have very specific structural characteristics that allow heat and humidity to build up. It is very rare for sandstone caves to provide the very specific microclimate required for a maternity site. It is also unusual for Eastern Bentwing-bats to select a sandstone adit as a maternity site. That such a site has been selected indicates that the very specific microclimate factors required are present. There are few known maternity sites for Eastern Bentwing-bats in the Hunter Valley. The loss of specialized maternity sites may place regional populations at risk.

The adit is located 152 m from the proposed Pit 8. The BAR (Section 3.1.3) acknowledges that "*At this distance, it is possible that the nearby blasting vibration may quicken the collapse of the adit or cause bats to exist the adit during the day*". WCPL suggest a commitment to implementing an engineering solution to maintain an opening to the adit. While OEH welcomes this commitment as few maternity sites for the Eastern Bentwing-bats are known in the Hunter Valley, further details on the proposed engineering solution are required.

WCPL indicates a commitment to minimize the potential for disturbance to Eastern Bentwing-bats by reducing blasting vibration intensity. OEH accepts that reducing blast vibration intensity may be a satisfactory solution. However, a detailed monitoring program will be required to determine the impact of reduced blasting vibration intensity on the bats.

5. Potential impacts to the Regent Honeyeater

Recommendation

- 5.1 WCPL provide OEH with the credit files from the revised FBA assessment, including the xml files from credit calculator, as required by the FBA, for the impact and offset areas.

OEH met with WCPL's consultants in April 2016 and arrived at a consensus regarding potential Regent Honeyeater habitat on the development and offset sites. In order to complete a review of the offset requirements OEH requests access to the credit files from the revised FBA assessment, including the xml files from credit calculator, for the impact and offset areas.

6. Suitability of the Offset Strategy for the Regent Honeyeater

Recommendation

- 6.1 OEH recommends that WCPL find additional areas preferably of predominantly mature Regent Honeyeater habitat to fulfil its credit requirement for this species.

The FBA requires an offset requirement for the Critically Endangered Regent Honeyeater. OEH notes that WCPL states that it could ultimately decide to satisfy this credit requirement through a combination of additional land-based offsets secured by a BioBanking agreement, contributing money to supplementary measures or establishing a fund (OEH assumes this means payment into the NSW Biodiversity Offsets Fund for Major Projects). As the Regent Honeyeater is a species for further consideration supplementary measures cannot be used.

The use of mine rehabilitation is not considered appropriate to offset the impacts for regent honeyeater in this instance due to the time required for mine rehabilitation areas to produce mature trees with high nectar flows being too great given the high extinction risk of the Regent Honeyeater.

However, at some point in the future mine rehabilitation areas may provide suitable habitat for the Regent Honeyeater. At that time species credits could be generated for the Regent Honeyeater and be sold on the market or used for other WCPL projects. OEH has not been provided with the FBA Rehabilitation Calculator files used for this project and therefore relies on the text provided in 4.4.5 of the BAR. OEH notes that 610ha of mine rehabilitation is proposed and that the species richness score has been increased beyond that allowed under the FBA Rehabilitation Calculator from 1.0 to 1.5. This increases the credits generated from 2939 to 3415. This is not appropriate.

OEH notes that approximately 75 per cent of the 610 ha (455ha) will be targeted towards the Regent Honeyeater habitat generating 3271 credits. This area should target locally represented species from the priority list from the National Recovery Plan. OEH notes separately a comment that Black Cypress pine would be included as a co-dominant and does not regard this as appropriate for areas targeting Regent Honeyeater due to their invasive nature and competition for water and nutrients.

The National Recovery Plan for the Regent Honeyeater offers the following advice.

Key tree and mistletoe species for the regent honeyeater include:

- *Mugga (or Red) Ironbark, Eucalyptus sideroxylon*
- *Yellow Box, E. melliodora*
- *White Box, E. albens*
- *Yellow Gum, E. leucoxylon*
- *Spotted Gum, Corymbia maculata*
- *Swamp Mahogany, E. robusta*
- *Needle-leaf Mistletoe, Amyema cambagei on River Sheoak, Casuarina cunninghamiana*
- *Box Mistletoe, A. miquelii*
- *Long-flower Mistletoe, Dendrothoe vitellina*

Other tree species may be regionally important. For example the Lower Hunter Spotted Gum forests have recently been demonstrated to support regular breeding events of regent honeyeaters. Flowering of associated species such as thin-leaved stringybark (E. eugenioides) and other stringybark species, and broad-leaved ironbark (E. fibrosa) can also contribute important nectar flows at times.

Mature, large individual trees tend to be more important as they are more productive, particularly on highly fertile sites and in riparian areas (Webster & Menkhorst 1992; Oliver 2000). Trees in such areas tend to grow larger (Soderquist & MacNally 2000) and produce more flowers (Wilson & Bennett 1999).

The following table lists our current understanding of the proposed offset package for the Regent Honeyeater.

	Regent Honeyeater Species Credits
Impact Area	14,630
Offset areas 1 to 5	4,271
Credit shortfall	10,359
Proposed Mine Rehabilitation	3,230

The proposed offset package for the Regent Honeyeater is inadequate. A further 10,359 species credits are required for the Regent Honeyeater. Potential benefits from mine rehabilitation for the Regent Honeyeater will not be generated for at least 20 years after rehabilitation areas are planted and therefore OEH does not consider that as an appropriate offset for this mine's impact.

OEH notes that WCPL has indicated that if required, they are confident additional on-ground offsets that will generate species credits for the Regent Honeyeater could be identified and included in the offset package.

7. Suitability of inclusion of existing agricultural land in offset areas

OEH understands that WCPL and Parks & Wildlife Group are currently involved in discussions regarding the suitability of certain areas of the proposed offset package for inclusion into the reserve system. OEH notes that WCPL have indicated that it may consider removing the exotic pasture/cultivation areas from the offset package and replace them with remnant vegetation of a similar credit value.



SF2013/154540; WST07/00118/09

The Manager
Resource Assessment
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Matthew Riley

Dear Mr Riley

SSD6764: Wilpinjong Extension Project; Response to Submissions

Thank you for your email on 23 May 2016 forwarding Response to Submissions (RtS) for the Wilpinjong Extension Project to Roads and Maritime Services for comment. Reference is made to Roads and Maritime's previous submission in relation to this matter dated 14 March 2016.

The RtS has been reviewed. I note the applicant generally concurs with the comments made by Roads and Maritime in its submission dated 14 March 2016. Roads and Maritime therefore makes no further comment.

Please forward a copy of the determination of this project to Roads and Maritime at the same time it is sent to the applicant. Should you require further information please contact the undersigned on 02 6861 1453.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Andrew McIntyre'.

Andrew McIntyre
Manager Land Use Assessment
Western

Roads and Maritime Services



Department of Primary Industries

OUT16/26764

Stephen Shoemith
Senior Planning Officer, Resource Assessments
NSW Department of Planning & Environment
By email: Stephen.shoemith@planning.nsw.gov.au

Dear Mr Shoemith

Wilpinjong Extension Project (SSD 6764) Response to Submission Additional Information

DPI Water has reviewed the additional information provided by the proponent following DPI Water comments on the Response to Submissions (RTS) and the meeting held 7 July 2016 with the proponent, Department of Premier & Cabinet, Department of Planning & Environment and DPI Water.

DPI Water in responding to the RTS sought clarification regarding validation on the minimal impact consideration for water quality where 'no increase of more than 1% per activity in long-term average salinity in a highly connected surface water source at the nearest point to the activity'. The RTS described the cause of downstream salinity rise in Wilpinjong Creek to be climatic and inflows from Cumbo Creek. DPI Water recommended that an assessment of the drivers for changed in river salinity upstream and downstream be investigated via a statistical method rather than a visual appraisal so as to show with confidence that the project is a category 1 impact as per the Aquifer Interference Policy (AIP). DPI Water also requested the full data set which supported the RTS and that which was the basis of the Environmental Impact Statement.

The supplementary report authored by Hydrosimulations and titled *Wilpinjong Extension project – Response to Residual Matters Raised by DPI Water*, and dated 7 July 2016 used groundwater modelling outputs to derive predicted mine inflows and losses in baseflow to undertake a salt balance. This salt balance indicated that the predicted increase in long term average salinity in Wilpinjong Creek from existing operations and approved is 0.8% and therefore within the 1% threshold and a Category 1 Impact. DPI Water acknowledges the information in this report however recommends that continued analysis of measured observations be incorporated into the updated Water Management Plan (WMP) for the project.

The proponent illustrated at the meeting 7 July 2016 that historically salinity in Wilpinjong Creek downstream of the activity was also higher than salinity prior to mining. DPI Water does not consider there to be sufficient baseline data to make this statement conclusively.

DPI Water considers there to have been a continuous trend of rising salinity in Wilpinjong Creek from 2012 to 2014 however discharges from the reverse osmosis plant has lessened the impact.

NSW Department of Primary Industries
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DPI water accepts that the modelling outputs presented in the above mentioned supplementary report indicate that downstream impacts from the mining activity are within the AIP minimal impact threshold. However DPI Water recommends that the approval conditions require for the WMP to be updated in consultation with and to the satisfaction of DPI Water and include a commitment to undertake further statistical analysis to increase the understanding of the drivers for salinity increase in Wilpinjong Creek downstream of the activity.

For further enquiries please contact Hannah Grogan, Water Regulation Officer (Newcastle) on (02) 4904 2516 or Hannah.Grogan@dpi.nsw.gov.au.

Yours sincerely



Graeme White

A/Director, Planning Policy & Assessment Advice

Department of Primary Industries

15 July 2016



Our Ref. DOC16/467530
Your Ref. SSD 6764

Mr Stephen O'Donoghue
Team Leader – Resource Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Stephen

Wilpinjong Extension Project (SSD 6764) – Residual Matters

The Office of Environment Heritage (OEH) has reviewed the letter from Peabody Energy dated 9 September 2016, regarding the generation of Regent Honeyeater species credits on mine rehabilitation.

In summary, OEH is satisfied with either of the two options outlined in Attachment A. OEH also recommends:

- that Biometric Vegetation Types HU697, HU732 and HU824 are the only suitable BVTs for the generation of species credits for the Regent Honeyeater; and
- that a Condition of Consent addressing potential failure to achieve the required standard of ecological restoration be included (Section 4, Attachment A).

OEH will develop performance criteria for mine site rehabilitation targeting habitat for the Regent Honeyeater in consultation with WCPL.

OEH accepts that a staged payment of the residual offset obligation is appropriate.

If you have any questions regarding this matter please contact David Geering on 02 68835335 or david.geering@environment.nsw.gov.au.

Yours sincerely

PETER CHRISTIE
Regional Manager North West
Regional Operations

16 September 2016

Attachment A

OEH Review of Wilpinjong Residual Matters

1 Regent Honeyeater species credits

Given the transitional period in which the Wilpinjong Extension Project is being determined, OEH is satisfied that the offset proposal detailed below is sufficient to offset the impact on Regent Honeyeater.

In accordance with the FBA, the rehabilitation areas will generate 3.55 species credits per hectare, i.e. 50% of the credits generated on land-based offsets for the Regent Honeyeater.

OEH notes that WCPL propose to include an additional 814 ha of mine rehabilitation, approved as part of the Wilpinjong Mine consent of 2006 (application number 05-0021), as generating Regent Honeyeater credits for the Extension Project (SSD 6764). The commitment for application 05-0021 in 2006 was to rehabilitate this area to woodland. OEH notes DPE proposed approach to approve upgrading of the rehabilitation within the previously approved rehabilitation area to a higher standard by approving the generation of credits at a rate of 25%. OEH acknowledges the benefits in moving from rehabilitation based on a vegetation formation to rehabilitation targeting a PCT. OEH notes that the NSW Biodiversity Offsets Policy for Major projects does not provide guidance on this novel approach.

The strategy proposed generates a total of 7,622 species credits for the Regent Honeyeater with an outstanding residual of 2,737 credits (Table 1). WCPL have previously accepted a cost of \$386.15 per Regent Honeyeater species credit in order to calculate the cost of additional supplementary actions to satisfy these residual credits. 2,732 Regent Honeyeater credits equates to \$1,056,950.

Table 1:

		ha	credits
A	Extension Area open cut to woodland (3.55 credits/ha)	775	2,751
B	Extension Area ancillary to woodland (3.55 credits/ha)	169	600
C	Approved Area agriculture to woodland (3.55 credits/ha)	851	3,021
		1,795	6,372
D	Less slopes >15 degrees	55	195
	TOTAL	1,740	6,177
E	Approved Area Woodland to PCT woodland (1.775 credits/ha)	814	1,445
	TOTAL	2,554	7,622
	Regent Honeyeater credit requirement		10,359
		residual	2,737
		\$/credit	\$386.15
		\$ contribution	\$1,056,950

2 Regent Honeyeater species credits WCPL proposal

OEH has become aware that WCPL may wish to include areas of established rehabilitation within the proposed offset strategy. OEH inspected these plantings on 9 August 2016 and consider that they would not fit the required criteria for the generation of Regent Honeyeater credits, i.e. trending towards a recognized PCT, due to the predominance of a non-native groundcover and the dominate over-storey trees that could be identified not being key Regent Honeyeater feed trees.

These areas could be considered as part of the offset package if non-native groundcover can be replaced with a native groundcover and an assessment of the over-storey trees determines that they were key feed trees. OEH understands that an alternative approach of clearing and replanting these areas is being considered. OEH recognises the advantages of this approach. This would result in the removal of the non-native groundcover and the rehabilitation targeted towards a recognisable PCT and Regent Honeyeater habitat. It will also be consistent with adjoining rehabilitated areas and result in a

better potential addition to conservation areas. The addition of these established rehabilitation areas will reduce the residual credit requirement to 1,844, equating to \$714,186 (Table 2).

Table 2:

		ha	credits
A	Extension Area open cut to woodland (3.55 credits/ha)	775	2,751
B	Extension Area ancillary to woodland (3.55 credits/ha)	169	600
C	Approved Area agriculture to woodland (3.55 credits/ha)	851	3,021
D	Approved Area agriculture (already rehabilitated) to woodland (3.55 credits/ha)	198	703
		1,993	7,004
E	Less slopes >15 degrees	55	195
	TOTAL	1,938	6,880
F	Approved Area woodland to PCT woodland (1.775 credits/ha)	814	1445
G	Approved Area woodland (already rehabilitated) to PCT woodland (1.775 credits/ha)	107	190
	TOTAL	2,752	8,515
	Regent Honeyeater credit requirement		10,359
		residual	1,844
		\$/credit	\$386.15
		\$ contribution	\$714,186

3 Suitable BVTs for Regent Honeyeater Habitat

WCPL have nominated eleven vegetation types as suitable habitat for the Regent Honeyeater. However only three include key feed species as a major canopy component and are regularly used by Regent Honeyeaters in the Wollar area as foraging and breeding habitat. OEH only supports the use of the following three BVTs for the project:

- HU697 (Mugga Ironbark - Black Cypress Pine shrub/grass open forest of the upper Hunter Valley, mainly Sydney Basin Bioregion),
- HU732 (Yellow Box grassy woodland on lower hillslopes and valley flats in the southern NSW Brigalow Belt South Bioregion) and
- HU 824 (White Box - Black Cypress Pine shrubby woodland of the Western Slopes)

Recommendation

3.1 The Biometric Vegetation Types HU697, HU732 and HU824 are the only suitable BVTs for the generation of species credits for the Regent Honeyeater.

3.2 That as it is likely that Black Cypress will recolonise the site via windblown seed that WCPL should not include it in the seed mix, so as to avoid excessive recruitment of this species which will have a negative impact on Regent Honeyeater habitat.

4 Retirement of species credits

OEH does not support WCPL's proposed condition that "*Within 15 years of the completion of mining operations ... the Applicant shall retire ecosystem credits and species credits*".

There is no requirement to retire species credits as no BioBanking agreement is proposed. The proposed condition implies that the company's obligation will be assessed within 15 years of the end of mining. This may be too short a time period as it is unlikely that eucalypt species planted will have grown sufficiently to flower. The productiveness of flowering and nectar production capacity of the rehabilitated vegetation will be critical to it becoming Regent Honeyeater habitat.

Recommendation:

4.1 That the following be included as a Condition of Consent:

X1 If, once rehabilitation is underway, it becomes clear that the ecological rehabilitation standard for which the biodiversity credits have been generated is not able to be achieved, the company must instead source and retire an equivalent number and type of biodiversity credits (or supplementary measures) in order to meet its offset requirement.

5 Performance measures

The project's Biodiversity Management Plan must include performance measures and a Trigger Action Response Plan to ensure satisfactory progress towards the creation of a recognisable PCT and targeted Regent Honeyeater habitat.

Given the ecological requirements of the Regent Honeyeater specialised performance and completion criteria will need to be developed for mine rehabilitation targeting Regent Honeyeater habitat. OEH will work with DPE and the proponent on the development of these criteria.

Recommendation:

5.1 Performance criteria for mine site rehabilitation generating species credits for the target PCT and Regent Honeyeater should be developed by OEH in consultation with WCPL.

6 Contribution to Regent Honeyeater Recovery Fund

OEH is supportive of WCPL making staged payments.