



LENDELL MINE

Response to Submissions 132 kV Powerline Relocation MOD 3 EA

for
Mt Owen Pty Limited
September 2016

LENDELL MINE

132 KV POWERLINE RELOCATION MODIFICATION 3 ENVIRONMENTAL ASSESSMENT

RESPONSE TO SUBMISSIONS

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1 INTRODUCTION

1.1 BACKGROUND

Glencore Coal Pty Limited (Glencore) owns and operates a number of mining projects located throughout NSW. The Mt Owen Complex is owned and managed by Mt Owen Pty Limited, a wholly owned subsidiary of Glencore.

The Mt Owen Complex is located within the Hunter Coalfields at Hebden in the Upper Hunter Valley of New South Wales, approximately 20 km north-west of Singleton and 26 km south-east of Muswellbrook. The Mt Owen Complex comprises three adjacent open cut coal mining operations including Mt Owen, Glendell Mine and the Ravensworth East Mines which are located within the Singleton Local Government Area (LGA).

Glendell Mine has approval to conduct open cut coal mining and associated activities, extracting up to 4.5 Million tonnes per annum (Mtpa) Run of Mine (ROM) coal to 2024 generally in accordance with Development Consent (DA) 80/952 (as modified).

Mt Owen Pty Limited (Mt Owen) has identified the need to realign a 2.7 km section of an Ausgrid 132 kilovolt (kV) powerline further to the west of the Glendell Mine Approved Disturbance Boundary (Disturbance Boundary) to ensure that it is not impacted from blasting or other mine related activities.

1.2 DOCUMENT PURPOSE

An Environmental Assessment (EA) was submitted to DP&E in support of an application by Mt Owen for modification to DA 80/952 under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to facilitate the relocation of a 2.7 km section of an existing 132 kV Ausgrid powerline and associated activities at the Glendell Mine (MOD 3).

The EA was placed on “notification” for two weeks to 31 August 2016. Eight submissions were received in response to the notification. This Response to Submissions (RTS) document has been prepared to respond to all of the submissions received.

1.3 DOCUMENT STRUCTURE

This RTS is structured as follows:

- **Section 2** summarises the regulatory submissions and responds to the issues raised in each submission; and
- **Section 3** provides a summary of key management and mitigation measures; and
- **Section 4** and **5** provide abbreviations and reference utilised within this RTS, respectively.

2 SUBMISSIONS

This section provides an outline of the submissions received and responses to the issues raised.

2.1 OVERVIEW

The following agencies provided a submission in relation to the EA:

- Department of Planning and Environment (DP&E);
- Australian Rail Track Corporation (ARTC);
- Singleton Council;
- NSW Department of Primary Industries – Water (DPI Water);
- Office of Environment and Heritage (OEH);
- NSW Environment Protection Authority (EPA);
- Ausgrid; and
- NSW Department of Industry – Division of Resources and Energy (DRE).

In an email received 2 September 2016, DP&E provided copies of submissions received and summarised the five key issues raised in the regulatory submissions listed above. They requested that these issues be addressed in the RTS document. The email advised “*a number of agency comments can be addressed in the post approval requirements and conditions of consent.*”

The five key issues raised by DP&E relate broadly to disturbance and rehabilitation and justification for the preferred powerline route. These matters are addressed in **Section 2.2**.

A further submission was provided by DP&E from Ausgrid on 6 September 2016. DP&E provided a submission from the Heritage Division of OEH on 12 September 2016.

All submissions are included in **Appendix A**.

Issues raised in submissions are reproduced and responded to in the following sections.

2.2 DEPARTMENT OF PLANNING AND ENVIRONMENT

2.2.1 Rehabilitation of Land Surrounding New Power Poles

Issue

Further information required on the proposed rehabilitation of land temporarily cleared for the construction of new power poles.

Response

Glendell Mine recognises the importance of vegetation corridors to regional biodiversity as such the mine's rehabilitation strategy has been designed to link rehabilitation areas to the proposed offset areas and existing remnant vegetation. Rehabilitation at the mine is guided by the Mt Owen Complex Landscape Management Plan (including the rehabilitation management plan), Mining Operations Plan (MOP) and in accordance with general principles of best practice.

The existing Landscape Management Plan requires that where topsoil is available, the following measures will be adopted to protect its quality and enhance rehabilitation outcomes:

- Where possible, topsoil will be stripped prior to disturbance when moist;
- Topsoil is to be stockpiled away from watercourses; and
- Appropriate sediment controls will be installed at the base of stockpiles to prevent soil loss.

Rehabilitation commences as soon as practicable following the completion of construction activities and will involve:

- Removal of all infrastructure and equipment from the site;
- Removal of any waste resulting from the powerline construction activities;
- Remediation or removal of any chemical spillage / contamination caused by fuel spillage etc.; and
- Replacement of disturbed soil and seeding the disturbed areas.

Typical open woodland species and pasture seeding rates used on disturbed areas at the Glendell Mine are outlined in **Table 1** and **Table 2** (reproduced from Tables 45 and 46 of the Mt Owen Complex Annual Review 2015). The relevant seed mix will be applied (depending on whether the area in question is currently exotic pasture or native vegetation) during rehabilitation of disturbance associated with the powerline relocation.

Table 1
Glendell Mine Typical Open Woodland Species

Woodland Species	Seeding Rate (kg/ha)
<i>Acacia decora</i>	0.1
<i>A. decurrens</i>	0.4
<i>A. implexa</i>	0.2
<i>A. falcata</i>	0.4
<i>A. filicifolia</i>	0.1
<i>A. longifolia</i>	0.2
<i>A. salicina</i>	0.3
<i>Corymbia maculata</i>	1.5
<i>Euc. albans</i>	0.3
<i>E. fibrosa</i>	0.3
<i>E. crebra</i>	0.4
<i>E. punctata/canaliculata</i>	0.4
<i>E. moluccana</i>	0.2
<i>E. tereticornis/blakelyi</i>	0.5

Table 2
Glendell Mine Typical Pasture Species

Species	Seeding Rate (kg/ha)
Jap millet	20
Oats	20
Couch	10
Kikuyu	3
Perennial rye	8
Wimmera rye	8
Sub clover	3
Lucerne	5
Phalaris	5
Green panic	3

Rehabilitation care and maintenance will be undertaken as required, as outlined in Section 5.4.2.3 of the Landscape Management Plan and may include:

- Weed and feral animal control;
- Erosion control works where necessary;
- Re-seeding/planting of rehabilitation areas that may have failed;
- Maintenance fertilising where required; and
- Repair of access tracks where necessary.

Details of rehabilitation undertaken will be reported in the Annual Review.

2.2.2 Rehabilitation of the Redundant Section of Powerline

Issue

Provide further information on the proposed rehabilitation of the redundant section of powerline.

Response

Rehabilitation will continue to be guided by the Mt Owen Complex Landscape Management Plan, MOP and in accordance with general principles of best practice.

It is anticipated open cut operations will intercept the northern section of the existing powerline alignment in 2017. Rehabilitation activities in this area will focus on stabilising disturbance (in accordance with the Mt Owen Complex Erosion and Sediment Control Plan (ESC Plan)), and may be temporary in nature.

Rehabilitation of the remaining redundant section of powerline will commence as soon as practicable following commissioning of the new section of powerline and will involve:

- Removal of all infrastructure and equipment from the site;
- Removal of any waste resulting from the powerline construction activities;
- Remediation or removal of any chemical spillage / contamination caused by fuel spillage etc.; and
- Backfilling of each hole with endemic fill material;
- Replacement of disturbed soil and seeding the disturbed areas.

Seeding of disturbed areas will be undertaken with seed mixes generally as outlined in **Table 1** and **Table 2**. Details of rehabilitation will continue to be reported in the Annual Review.

2.2.3 Disturbed Waterfront Land

Issue

Provide additional information on the proposed restoration and revegetation of disturbed waterfront land.

Response

Vegetation clearing within the creek crossings will not involve ground disturbance but the lopping of trees within the specified clearance zone by chain sawing. Chain sawing within the riparian zone will be conducted on foot or by the use of cherry picker man lifts so that no heavy machinery will be required to traverse the creek beds. Clearing of vegetation outside of the creeks will be undertaken by a track mulcher with the mulched material being left in situ with the soil. No power poles are proposed within creek lines.

Environmental impacts will be controlled through the implementation of the Mt Owen Complex Water Management Plan and the ESC Plan.

Rehabilitation activities will be guided by the Mt Owen Complex Landscape Management Plan, MOP and in accordance with general principles of best practice. Rehabilitation will commence as soon as practicable following the completion of construction activities as outlined in **Section 2.2.1**.

Section 8.1 of the EA outlines additional specific management measures proposed to be implemented during the construction and operation of the powerline. Those relevant to disturbance on waterfront land include:

- A due diligence assessment of each mature tree will be undertaken at the lopping stage:
 - Ten (10) trees will be planted for each mature tree within the Hunter Valley River Oak Forest vegetation type that is severely lopped within Bowmans Creek in the two mature tree areas (as shown on Figure 9 of the EA);
 - Two (2) nesting boxes will be erected for any tree hollow identified that has to be lopped;
- Any tree lopping along Bowmans Creek and Swamp Creek will be undertaken manually with chainsaws to allow the root structures to remain in situ; and
- Designation of a 4 ha area that was previously approved for disturbance in the Glendell EA to be managed by Mt Owen Pty Limited consistent with the commitments of the adjacent HMA. This area will be identified and incorporated into the Mt Owen Complex BMP.

As part of the GDP process, the DPI Water Guidelines for Controlled Activities will be considered and implemented as relevant.

2.2.4 Vegetation Impacts

Issue

Please clarify the vegetation impacts and different types of vegetation disturbance, particularly the difference between temporary vs permanent, direct vs indirect, and minor vs non-minor disturbance. Provide a summary table that tabulates the area of disturbance by vegetation community and disturbance type.

Response

Section 8.1.2 of the Glendell MOD 3 EA describes disturbance to vegetation communities as direct, indirect, permanent, temporary and minor based on the level of disturbance to the vegetation and the land's surface. The construction of 13 new power poles locations along the alignment will involve the removal of a relatively small amount of vegetation. The majority of the easement under the proposed realigned powerline is grassland however some impacts on vegetation will be necessary due to lopping under wires at three creek crossings to ensure adequate clearance as per Ausgrid Guidelines (as described in Section 4.2.2 of the EA).

Indirect and temporary impacts are defined as impacts that do not directly disturb the land's surface and are temporary (such as tree lopping indicated with a * in **Table 3**). Direct and temporary impacts are defined as impacts which directly disturb the land's surface, however, are short-term in nature with the area to be rehabilitated.

Direct and permanent impacts are defined as impacts which will directly and permanently disturb the land's surface. The installation of the new power poles will result in direct and permanent impacts. Due to the minimal clearing required for the new power poles and the temporary nature of the impacts on vegetation, all disturbances to vegetation communities are considered minor.

Table 3 provides a summary of disturbance by vegetation community and disturbance type.

Table 3
Disturbance Summary

Vegetation Community	Pole Number	Total Disturbance Type		
		Temporary (ha)		Permanent (ha)
		Direct	Indirect	Direct
Derived Grassland	P1, P4 – P13 (11 poles)	0.6596	0*	0.0004
Central Hunter Swamp Oak Forest	P2, P3 (2 poles)	0.1178	1.4*	0.0022
Hunter Valley River Oak Forest	None	0	0.65*	0
Central Hunter Ironbark – Spotted Bum – Grey Box Forest	None	0	0	0
Central Hunter Bulloak Forest Regeneration	None	0	0	0
TOTAL		0.7774	2.05*	0.0026

2.2.5 Preferred Route Justification

Issue

Provide more information on the justification for selecting the preferred route and alternatives considered.

Response

As outlined in Section 4.6 of the EA, Ausgrid (in consultation with Glencore) considered relocating the powerline along several different alignments. Each potential alignment required the crossing of creek lines and associated potential impacts to native vegetation and archaeological sites. A preferred alignment was selected for the relocation which minimised its need for future relocations. It was selected in consideration of the location of future approved mining activities and additional coal resources which are located to the west of the open cut that may be recovered under future approvals.

The preferred alignment is contained entirely within the DA 80/952 project boundary. Detailed archaeological assessment (see Appendix B of the EA) identified sensitive archaeological features to be managed (including those around power pole P10). Bowmans Creek meanders to the west of the preferred alignment, with Swamp Creek meandering to the east.

The locations of existing infrastructure such as the New England Highway and the Main Northern Railway Line, both located west of the DA boundary were also considered. An overpass associated with the Main Northern Railway Line constrained the development to the south and led to the selection of power pole sites P1 and P2 (as shown on EA Figure 4).

Further, the preferred route represents the shortest route from power pole P1 to P15 and the least impact to Bowmans and Swamp Creeks. There are no power poles proposed to be located in the creeks. Geotechnical investigations of the proposed positioning of each pole hole has confirmed the constructability of the powerline on the chosen alignment.

Section 8 of the EA confirms that the proposed alignment is the most appropriate to minimise potential ecological and archaeological impacts.

2.3 OFFICE OF ENVIRONMENT AND HERITAGE

2.3.1 Aboriginal Cultural Heritage Assessment

Issue

Additional project related impacts should be managed in accordance with the mine's existing ACHMP (2014) and Mt Owen's internal Ground Disturbing Protocol (GDP) Process.

Specific mitigation measures to be implemented to avoid inadvertent impacts to Aboriginal heritage (from Section 8.2.3 of EA):

- Site MCO OS-10 is to be avoided by the activities associated with the powerline relocation. This includes not establishing any new access tracks within MCO OS-10. The existing track to the house/sheds can be used without any grading or widening;

- MCO OS-10 is to be bordered by temporary fencing with a five metre buffer and 'Do Not Enter' signs attached;
- Induction and training is to occur to ensure MC OS-10 is not accessed or disturbed by the construction workforce;

In the event that any project related works will impact Sensitive Areas 1 to 6, Mt Owen will undertake appropriate investigation in accordance with the DECCW 2010 Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales.

Based on this review OEH is satisfied that the management measures proposed are adequate and appropriate given the nature of the archaeological record and the range of activities to be undertaken within the modification area. OEH has no additional concerns with respect to Aboriginal cultural heritage management for this project.

Response

Noted.

2.3.2 Threatened Biodiversity Assessment

Issue

As stated in Section 8.1 of the EA, the relocated powerline easement would require the clearing of: up to 0.06 hectares (ha) of derived grassland for the installation of foundations of new poles; temporary clearing of up to 0.06 ha of Central Hunter Swamp Oak Forest at poles P02 and P03; and the lopping of 1.4 ha of Central Hunter Swamp Oak Forest and 0.65 ha of Hunter Valley River Oak Forest at three creek crossings to prepare a new easement for the new powerline. The easement of the relocated powerline would then be maintained, which involves on-going tree trimming in the areas of new creek crossing.

The proponent wishes to follow the same pathway as the Ravensworth East Mine - Modification 6 - Tailings Pipeline project (MP09 0176 MOD3, DA 305-11-01 MOD6 & DA 52-03-00 MOD6) which was determined on 16 February 2016 (Department of Planning & Environment, 2016). This project, on three adjacent mine project areas involved the clearance of about 10 semi-mature River Oak trees (*Casuarina cunninghamiana*) along the 11 kilometre length of new pipeline. A flora and fauna survey was conducted along the route of the new pipeline in mid-2015, before the EA was submitted with the development modification.

The River Oak trees did not form part of any endangered ecological community, nor were found to support any threatened species. For the Ravensworth modification, OEH recommended that 10 new River Oak trees were planted along the bank of Bowmans Creek for each River Oak tree removed. This was accepted by the proponent.

It resulted in a new consent condition (Condition 33A of Schedule 4: 'Compensatory Planting') that requires 'The Applicant shall plant and maintain, until established, 10 River Oak trees for every River Oak tree removed during construction of the tailings pipeline under MOD 6.' An 'established River Oak tree' was considered to be two or more metres in height.

In the case of the current modification, no recent threatened species survey work of the new powerline route appears to have been undertaken. Instead the proponent reviewed local records of threatened species in the Wildlife Atlas and the used the results of survey work for the Glendell Mine undertaken in December 2006 for the preparation of the EA for the Glendell MOD 2 project (Umwelt, 2007: p. 2.4).

The impact of the proposed tree trimming required by the new modification was assessed by conducting a 'seven-part test' of significance, as per Section 5A of the Environmental Planning and Assessment Act 1979. The EA concluded that the proposed would not have a significant impact on threatened biodiversity and that no offset was required but instead proposed the following mitigation measures (as described in Section 8.1.3 of the EA):

- Field identification by an appropriately qualified person of the *Acacia pendula* and *Eucalyptus camaldulensis* adjacent the southern existing track will occur prior to any works to be undertaken in the vicinity;
- A due diligence assessment of each mature tree will be undertaken at the lopping stage;
- Ten (10) trees will be planted for each mature tree within the Hunter Valley River Oak Forest vegetation type that is severely lopped within Bowmans Creek in the two mature tree areas;
- Two (2) nesting boxes will be erected for any tree hollow identified that has to be lopped; and
- Any tree lopping along Bowmans Creek and Swamp Creek will be undertaken manually with chainsaws to allow the root structures to remain in situ; and
- Designation of a 4 ha area that was previously approved for disturbance in the Glendell EA to be managed by Mt Owen Pty Limited consistent with the commitments of the adjacent HMA. This area will be identified and incorporated into the Mt Owen Complex BMP; and
- Rehabilitation of relevant areas of removed powerline.

In the absence of a recent threatened species survey (no more than five years old) it is possible that species such as Grey-crowned Babblers may now nest in trees within the path of the proposed relocated powerline easement. Typically this would be assessed by survey ahead of the preparation of an EA. In this case, given the context of the project, this may be addressed through recommended conditions (see below).

The four hectare area of land on the Glendell mine site is located along Betty's Creek and is mapped as 'Central Hunter Swamp Oak Forest'. It is located adjacent to the Habitat Management Area that was established as an offset for the previous Glendell Mine modification (DA 80/952 MOD 2). Therefore, this riparian vegetation likely contains similar values to the Swamp Oak to be cleared to make way for the new section of powerline easement.

The rehabilitation planned for land temporarily cleared for the construction of new power poles is not clearly described (Section 4.4.4 of the EA). OEH acknowledges that this comprises up to 0.06 ha of Central Hunter Swamp Oak Forest, therefore, OEH recommends that this is part of the project is conditioned to set minimum expectations of what the vegetation resulting from the rehabilitation will likely develop into.

Response

As outlined in section 3.4.2 of the EA, a key environmental management process at Glendell Mine is the GDP which must be approved by an Environmental representative prior to undertaking any surface disturbance work.

A threatened species survey will be undertaken by a relevantly qualified person as part of the GDP, prior to any construction works commencing.

The BMP will be updated to include the mitigation measures listed above (as described in Section 8.1.3 of the EA).

Glendell Mine is committed to ensuring that the vegetation resulting from the rehabilitation will consist of similar species to that being disturbed.

2.3.3 Conclusions and Recommended Consent Conditions

Issue

OEH acknowledges that the proposed powerline relocation will involve the temporary clearance of up to 0.06 ha of Central Hunter Swamp Oak Forest, and lopping of 1.4 ha of Central Hunter Swamp Oak Forest and 0.65 ha of Hunter Valley River Oak Forest. Mitigation factors for the project include the planting of River Oaks in a ratio of 10:1 for each River Oak that is substantially lopped, and the provision of an area of four hectares of Central Hunter Swamp Oak Forest on the lower reaches of Betty's Creek to be managed as part of the Mt Owen Complex Biodiversity Management Plan.

While OEH would typically require a copy of the full assessment to be provided (in this case the seven-part test) and for the assessment of biodiversity values to be based on biodiversity surveys no more than five years old, OEH considers (based on landscape context and available data), and that the woody vegetation is being offset (by compensatory plantings, rehabilitation and the provision of an on-site offset) that the assessment has been sufficient to enable OEH to complete its review. This is also based on the following recommended consent conditions for threatened biodiversity matters:

- That the mitigation measures described in Section 8.1.3 of the EA are included in any consent issued;
- That the threshold of when a River Oak Tree is considered to have been 'severely lopped', and thus requires compensatory planting, is set at loss of half or more of the crown biomass;

- That the temporary clearing of up to 0.06 ha of Central Hunter Swamp Oak Forest is replanted or naturally regenerated with a suitable mix of canopy, mid-storey and groundcover species (as described in the Section 3.2.3 of Umwelt (2007) and Peake (2006)) so that within 5 (five) years of clearance that the rehabilitated sites have at least 80 per cent of the plant species found in Central Hunter Swamp Oak Forest found elsewhere on the Mt Owen Complex and that it has the tree density and spacing that will likely mean that it will form a forest within twenty (20) years; and
- That impacts on any additional threatened species found during survey ahead of tree logging or clearing must be suitably offset in accordance with OEH offsetting policy (OEH, 2016).

Response

Noted. The BMP will be updated to reflect these mitigation measures.

2.4 DEPARTMENT OF PRIMARY INDUSTRIES – WATER

2.4.1 Impacts to Waterfront Land

Issue

The modification includes the relocation of a powerline within the DA 80/952 project boundary but outside the disturbance boundary with Figure 4 depicting the conceptual powerline easement.

The proposed powerline relocation includes works within waterfront land and the traversing of watercourses. As noted in the Environmental Assessment, Part 2 of Schedule 5 of the Water Management (General) Regulation 2011 provides an exemption from the requirement to hold a controlled activity approval for activities carried out in accordance with a right in force under the *Mining Act 1992*. However DPI recommends that DPI Water Guidelines for Controlled Activities are considered for any activities on waterfront land.

DPI understands some vegetation clearing is required in accordance with Ausgrid Vegetation Protocols. For disturbance on waterfront land, areas of temporary clearing should be restored and areas of permanent clearing should be offset via appropriate revegetation works, consistent with the DPI Water Guidelines.

Response

Refer to **Section 2.2.3** which addresses impacts to waterfront land and outlines additional specific management measures proposed to be implemented during the construction and operations of the powerline.

2.4.2 Biodiversity Management Plan

Issue

The Biodiversity Management Plan (BMP) should be updated to include appropriate riparian revegetation works, consistent with the Guidelines. It is noted that section 8.1.3 of the EA states that the BMP will be updated to include a designation of a 4 ha area which was previously approved for disturbance, however it is recommended that the total area of riparian vegetation which is removed is also offset via revegetation works with riparian corridor widths in line with the DPI Water guidelines. This offsetting and maintenance should occur in consultation with DPI Water.

Response

Noted. The BMP will be updated to include appropriate riparian revegetation works and the incorporation of the 4 ha area to be managed by Mt Owen Pty Limited, consistent with the commitments of the adjacent HMA. Mt Owen considers that the 4 ha area is adequate and as such no additional 'offsetting' is required. This commitment has been included in the summary of mitigation measures listed in **Table 4**.

2.4.3 Preferred Route Justification

Issue

DPI also notes analysis undertaken in relation to the preferred route described in section 4.5. It is demonstrated in Table 3 that DPI Water recommended that the EA include robust justification for the selected alignment and alternatives considered. It is noted that the alternative routes are not described in detail in the EA, nor is the feasibility assessment of each individual alternative included in the EA. It is recommended that the proponent provide a more robust justification for the selection of the preferred route.

Response

Noted. Refer to **Section 2.2.5**.

2.4.4 Groundwater

Issue

It is understood that the geotechnical investigations previously undertaken have indicated that the project will not involve any interception of the water table, as such groundwater impacts or licensing are not issues that require further consideration in determining this modification. Nevertheless, should the proponent intercept groundwater through this project, DPI Water should be notified immediately.

Response

Noted. If groundwater is intercepted, DPI Water will be notified immediately. This commitment has been included in the summary of mitigation measures in **Table 4**.

2.5 DEPARTMENT OF TRADE AND INVESTMENT - RESOURCES AND ENERGY

Issue

The proposed power line relocation does not change the mine design as described in the approved Mining Operations Plan (MOP) for the Mt Owen Complex. The proposed power line relocation does not change the conceptual final landform design, rehabilitation objectives or domains as described in the approved MOP for the Mt Owen Complex, which includes the Glendell Mine.

Rehabilitation methodologies would not change for the section of easement that is located within the Glendell Mine pit shell as described in the approved MOP for the Mt Owen Complex. Sections outside of the pit shell would be rehabilitated by Ausgrid in accordance with Ausgrid environmental standards.

No options analyses were provided for the power line relocation. The route was selected in consultation with Ausgrid.

The Division provides the following advice:

- The proposed power line, if approved, should be identified on MOP plans to maintain consistency with the approved MOP plans. No further information is required.

Response

Noted. Rehabilitated will be undertaken by Mt Owen in accordance with Mt Owen environmental standards.

2.6 ENVIRONMENT PROTECTION AUTHORITY

Issue

I refer to your email to the Environment Protection Authority (EPA), dated 17 August 2016, regarding the modification application for Glendell Coal Mine, application reference DA 80/952 Mod 3. The EPA understands this application relates to the proposed relocation of 2.7km of an existing 132 kilovolt Ausgrid powerline. Based on the information provided in the report titled 'Glendell Mine - 132 Kv Powerline Relocation Modification 3 Environmental Assessment', dated August 2016, the modification appears to be minor in nature in that there is minimal risk of potential environmental impacts from the proposed works. As the proposal does not appear likely to result in any significant environmental impacts or risks the EPA does not have any specific comments or proposed conditions to provide in relation to this matter.

Response

Noted.

2.7 AUSTRALIAN RAIL TRACK CORPORATION

2.7.1 Final Design Considerations

Issue

Thank you for forwarding the Environmental Assessment (EA) for ARTC's review, accordingly I advise that the proponent has made representations to ARTC to facilitate the relocation of the existing 132 kV Ausgrid powerline at the Glendell Mine.

Accordingly, the proponent and ARTC will continue to liaise throughout the project with respect to the overhead crossing of the Main Northern Railway, subject to:

- Final design plans complying with ARTC Standards, Australian Standards, Heavy Haul Infrastructure Guidelines and any reasonable requirements of ARTC and the design is to consider the following;
 - All structures supporting a span of electric aerials over ARTC railway tracks or sidings shall be so located that in the event of failure no part of them will fall within 1.8m of the outside rail of any railway track in accordance with PYS 02; and
 - Potential induction with existing ARTC infrastructure.

Response

Noted. These items will be complied with during the detailed design stage, following approval.

2.8 SINGLETON COUNCIL

Issue

The proposed modified route does not impact on any Singleton Council infrastructure and nor does it give rise to any amenity impacts.

The project is minor and Singleton Council has no specific requirements.

Response

Noted.

2.9 AUSGRID

This response was provided to Ausgrid for review. This response was accepted verbally by Kevin Smith – Senior Engineer at Ausgrid.

2.9.1 Referencing

Issue

Ausgrid would like to indicate that the proposed 132kV relocation will, on completion of the proposed works, become an Ausgrid asset. As such construction, operation and maintenance of this line will be carried out under the Electricity Supply Act. This document does not appear to have been referenced in the modification documentation.

Response

Glendell Mine understands upon completion of the work, Ausgrid will be the owner of the asset. Glendell Mine will ensure that all aspects associated with the construction of the line will be undertaken in accordance with the *Electricity Supply Act 1995*.

2.9.2 Operation and Maintenance

Issue

We also note that Ausgrid's ongoing arrangements for operations and maintenance, which have not developed under the state significant approval will also be utilised for the proposed line. While Ausgrid believe their ongoing maintenance and operational practices will be consistent with the intent of the environmental approvals for the site, it has not carried out any detailed assessment in this regard. We suggest that consideration of this in the approval of this modification may be required (subject to the Department of Planning's assessment of the modification).

Response

Operation and maintenance requirements will be managed by Ausgrid in line with their Environmental Management System. No additional impacts are anticipated as part of the operational and maintenance aspects of the project that have not been considered in this Environmental Assessment.

2.9.3 Assessment Detail

Issue

Ausgrid's review of the environmental arrangements proposed in the modification indicates that there appears to be a deficiency in the level of detail provided in the assessment in comparison to an environmental approval Ausgrid would carry out under its self-approving arrangements. We identify that potentially additional information may have been made available in the original mine approval and that this remains within the Department of Planning and Environment's scope of approval. However Ausgrid has the following comments:

1. The 132kV relocation is identified as being within the approval boundary but outside the disturbance boundary for the mine's approval. We note that this has been identified and would suggest some clarification on the impact this has on the environmental arrangements, assessments and approvals is included in the documentation.

Response

Detailed environmental assessments were undertaken for the Glendell EA, which supported the Modification of Glendell Mine Operations in 2007. The approval boundary is defined as the boundary to which the Development Consent applies. The Project Disturbance Boundary comprises the area which has been assessed within the approval boundary to accommodate the key surface components of the Glendell Mine Continuation Project. These areas are approved for disturbance and will be directly disturbed for the duration of the Project.

The management of environmental impacts such as the construction of the access tracks, vegetation removal, bushfire management and flora and fauna management within the approval boundary is guided by the Mt Owen Complex Environmental Management Strategy (EMS) and accompanying plans and procedures. This strategy has been developed, in part to fulfil the requirements of the development consent.

2.9.4 Access Tracks

Issue

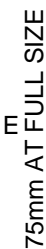
2. The use and impact of access tracks for the modification appears to lack detail. We note that the proposed access arrangements provided to Ausgrid in the proposed design (sheet 19), include access to poles being through the 132kV easement for the majority of the route. This appears to include access through swamp creek. As Ausgrid requires the access tracks to provide 24/7 all-weather access to the proposed poles, it is assumed that additional access works through swamp creek will be required but do not appear to have been assessed. Ausgrid intends under operations and maintenance conditions to only access these poles via rights of way and easements established as a part of the proposed project.

Response

Rights of way will generally be provided to Ausgrid via the indicated tracks on the plans contained within the EA. An all-weather right of way will be established with Ausgrid via the existing internal mine tracks in the event of wet weather prohibiting access along the existing tracks.

Figure 1 illustrates the updated draft right of way proposed for the powerline (GLD-MIN-0028c). The alternate access via the site's Light Vehicle road will be available under wet weather conditions (i.e. access across the creek is restricted). Access via the site's LV road will be through a notification process and an escort. No haul roads will need to be crossed using this access as it is a light vehicle only road.

319000

4

2.9.5 Location of Poles from Creeks

Issue

3. We note that the assessment indicates the selected location of poles is a "substantial" distance from the Bowman and Swamp Creek areas (Section 4.3.2) although this distance is not defined. Poles 1, 2, 3 and 10 on the route appear to be in close proximity to Bowman's and Swamp Creek. Ausgrid suggests additional detail may be required to confirm this still meets the definition of a substantial distance from these areas and that these poles will not affect sensitive areas along the route.

Response

A number of alternative routes were considered for the location of the powerline. The proposed pole locations have been designed in consideration of sensitive environmental aspects including ensuring each is placed at an appropriate distance from the banks of Bowmans and Swamp Creeks, avoiding potentially sensitive archaeology and native vegetation. Any poles that occur within 40 m of a creek line will be subject to strict environmental controls to ensure no works impact on the creek. Environmental impacts will be controlled through the implementation of the Mt Owen Complex Water Management Plan and the ESC Plan.

As part of the GDP process, an erosion and sediment control plan will be developed for the construction of the poles and this will include specific controls around the poles that occur in close proximity to the creek lines.

Relevant techniques and management principles to minimise impacts are outlined in Section 3 of the ESC Plan and achieved through the following key principles:

- Prior to site disturbance, erosion and sediment controls must be established and approved by the Environment & Community (E&C) Coordinator or Mt Owen Complex E&C Manager via the GDP;
- Rehabilitation of disturbed land as soon as practicable;
- Inspection and maintenance of all sedimentation controls and rehabilitation areas after storm events to ensure erosion and sediment controls are performing adequately;
- Follow up repair or redesign of erosion and sediment controls that are not performing adequately;
- Establishment of vegetative cover on all rehabilitation areas as a priority to minimise exposed subsoils and the control of weeds; and
- Restricting access to rehabilitated areas through the use of fencing and/or signposting.

There will be no direct vegetation removal from within the creek or riparian corridor. Rehabilitation activities will be undertaken as outlined in **Section 2.2**

2.9.6 Project Environmental Controls

4. Section 4.4.2 of the modification indicates that access tracks works will be carried out in accordance with NS174 *Environmental Handbook for Construction and Maintenance*. We note that NS174 has been developed for Ausgrid specific projects carried out under Ausgrid's environmental self-approval arrangements. Ausgrid provides no warranty that this documentation will be consistent with the overall state significant mining approval and subsequent environmental compliance. We also note that this document has not been provided by Ausgrid to form part of the modification approval and may potentially be changed by Ausgrid over the life of this project. We recommend that project environmental controls for this project do not utilise this document but are site specific and consistent with the overall state significant approval.

2.9.7 Response

As outlined in section 8.4.3 of the EA, impacts from the powerline relocation will be managed in accordance with a number of Mt Owen Complex documents including:

- Water Management Plan (WMP);
- Erosion and Sediment Control Plan (ESC Plan);
- Surface and Groundwater Response Plan; and
- The GDP Process.

In addition to the above, and as referenced in Section 4.4.2 of the EA, all works undertaken for the project will generally be in accordance with the *Environmental Handbook for Construction and Maintenance NS174c* (Ausgrid, 2014) or the latest version. This will assist the preferred ASP1 service provider to construct the powerlines and access tracks in accordance with Ausgrid's requirements.

2.9.8 Ecological Assessment

5. We note that there are a number of statements throughout the modification relating to the suitability of the route and construction arrangements from an ecological perspective. As no detailed ecological assessment has been provided as part of the modification submission, we note that this cannot be confirmed. Ausgrid suggests that a detailed ecological assessment be included within the modification documents. Without this, there is a concern that there is a lack of assessment of the impacts on possible threatened species and overall sensitive features such a Swamp and Bowman creeks.

2.9.9 Response

As outlined in section 8.1.1 of the EA, a detailed ecological impact assessment was conducted for the Glendell EA which supported the Modification of Glendell Mine Operations in 2007. An assessment of significance conducted as part of the Glendell Mine EA under the EP&A Act and the *Environment Protection and Biodiversity Conservation Act 1999* was performed and found that no significant impact on the listed threatened species that are known, or expected to occur, within the area.

However, as described in **Section 2.3.2**, a threatened species survey will be undertaken by a relevantly qualified person prior to any construction works commencing.

2.10 HERITAGE DIVISION OF OEH

Issue

It is noted that no item of state heritage significance is in the proximity of the proposed realignment site. There are however items of local heritage significance within the project boundary (but outside the approved disturbance boundary) that were identified in Historical Heritage Assessment for Modification of Glendell Mine as part of the Glendell Environmental Assessment. None of these local items – except for two former homes (Hillview homestead sites) which no longer exist – will be affected by the proposed relocation works.

The report does not discuss in detail the potential for any significant historic archaeology or relics that may be uncovered on the site given the early settlement in area evidenced by the presence of homesteads. Hence, although no objection is raised to the proposed modification, it is recommended that if significant relics were uncovered during the construction phase, the proposal should be modified to minimise harm to such relics.

Response

Noted.

3 SUMMARY OF KEY MANAGEMENT AND MITIGATION MEASURES

Table 4 summarises the key management and mitigation measures proposed in this RTS which are additional to the existing Statement of Commitments for Glendell Mine.

The objective of this summary is to ensure that MOD 3's environmental and social impacts are minimised by implementing the appropriate management, monitoring and mitigation strategies.

Table 4
Additional Management and Mitigation Measures

Ref.	Commitment	Section
1	A threatened species survey will be undertaken by a relevantly qualified person prior to any disturbance construction works commencing (in accordance with the GDP).	2.3.2
2	The BMP will be updated to include appropriate riparian revegetation works and the incorporation of the 4 ha area to be managed by Mt Owen Pty Limited, consistent with the commitments of the adjacent HMA.	2.2.3
3	If groundwater is intercepted during construction, DPI-Water will be notified immediately.	2.4.4
4	Plans contained in the MOP will be updated to include the location of the relocated powerline.	2.5

* * *

For
HANSEN BAILEY



Dianne Munro
Principal Environmental Scientist



James Bailey
Director

4 ABBREVIATIONS

Abbreviation	Description
ARTC	Australian Rail Track Corporation
DA	Development Assessment
BMP	Biodiversity Management Plan
DP&E	NSW Department of Planning and Environment
DRE	Division of Resources and Energy
EA	Environmental Assessment
EMP	Environmental Management Plans
EMS	Environmental Management System
EEC	Endangered Ecological Community
EPA	Environment Protection Authority
Glendell EA	<i>Environmental Assessment for Modification of Glendell Mine Operations'</i> (Umwelt, 2007)
GDP	Ground Disturbance Protocol
MOP	Mining Operations Plan
Mt Owen Complex	Consisting of the Mt Owen, Glendell and the Ravensworth East mining areas
MOD 3	<i>132 kV Powerline Relocation Modification EA</i> (this EA)

5 REFERENCES

- Ausgrid (2016) *Environmental Handbook for Construction and Maintenance NS174c NS143 Easements, Leases and Rights of Way*.
- Glencore (2015). Mt Owen Complex Annual Review

Appendix A
Submissions



Office of
Environment
& Heritage

DOC16/411442-2
DA 80/952 MOD 3

Ms Megan Dawson
Planning Officer, Resource Assessments
Department of Planning and Environment
megan.dawson@planning.nsw.gov.au

Dear Ms Dawson

RE: GLENDELL MINE MODIFICATION (DA 80/952 MOD 3) REVIEW OF ENVIRONMENTAL ASSESSMENT AND PROVISION OF RECOMMENDED CONDITIONS OF CONSENT

I refer to your e-mail dated 17 August 2016 inviting the Office of Environment and Heritage (OEH) to review a proposed modification to the Glendell Mine and provide recommended conditions of consent. OEH understands that the proposed modification involves the realignment of 2.7 kilometres of the 132 kilovolt Ausgrid powerline to move it to the west of the expanding Glendell Mine.

OEH notes that the powerline realignment has been designed to avoid areas of known Aboriginal cultural heritage value but will require the clearance (primarily by lopping) of riparian vegetation. The realigned powerline easement would require period maintenance to keep the wires clear of branches. The Environmental Assessment is short on some information in relation to impacts on threatened species, however, in this case these may be addressed through the recommended conditions of consent. Further comment and advice is provided in **Attachment 1**.

If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154.

Yours sincerely

31 AUG 2016

RICHARD BATH

Senior Team leader Planning, Hunter Central Coast Region
Regional Operations

Enclosure: Attachment 1

ATTACHMENT 1: OEH REVIEW OF THE PROPOSED GLENDELL MINE (MOD 3)

The Office of Environment and Heritage (OEH) has reviewed the report, '*Glendell Mine 132 KV powerline relocation Modification 2 Environmental Assessment*' (EA), prepared by Hansen Bailey, and dated August 2016. OEH's review focused on Aboriginal cultural heritage and threatened biodiversity matters. These matters are discussed below.

ABORIGINAL CULTURAL HERITAGE ASSESSMENT

OEH has reviewed the Aboriginal heritage *Mitigation and Management* outcomes outlined in Section 8.2.3 of the EA. OEH supports the outcomes detailed below. Additional project related impacts should be managed in accordance with the mine's existing ACHMP (2014) and Mt Owen's internal Ground Disturbing Permit (GDP) Process.

Specific mitigation measures to be implemented to avoid inadvertent impacts to Aboriginal heritage (from Section 8.2.3 of EA):

- Site MCO OS-10 is to be avoided by the activities associated with the powerline relocation.
This includes not establishing any new access tracks within MCO OS-10. The existing track to the house/sheds can be used without any grading or widening;
- MCO OS-10 is to be bordered by temporary fencing with a five metre buffer and 'Do Not Enter' signs attached;
- Induction and training is to occur to ensure MC OS-10 is not accessed or disturbed by the construction workforce;
- In the event that any project related works will impact Sensitive Areas 1 to 6, Mt Owen will undertake appropriate investigation in accordance with the DECCW 2010 *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*;

Based on this review OEH is satisfied that the management measures proposed are adequate and appropriate given the nature of the archaeological record and the range of activities to be undertaken within the modification area. OEH has no additional concerns with respect to Aboriginal cultural heritage management for this project.

THREATENED BIODIVERSITY ASSESSMENT

As stated in Section 8.1 of the EA, the relocated powerline easement would require the clearing of: up to 0.06 hectares (ha) of derived grassland for the installation of foundations of new poles; temporary clearing of up to 0.06 ha of Central Hunter Swamp Oak Forest at poles P02 and P03; and the lopping of 1.4 ha of Central Hunter Swamp Oak Forest and 0.65 ha of Hunter Valley River Oak Forest at three creek crossings to prepare a new easement for the new powerline. The easement of the relocated powerline would then be maintained, which involves on-going tree trimming in the areas of new creek crossing.

The proponent wishes to follow the same pathway as the Ravensworth East Mine – Modification 6 – Tailings Pipeline project (MP09 0176 MOD3, DA 305-11-01 MOD6 & DA 52-03-00 MOD6) which was determined on 16 February 2016 (Department of Planning & Environment, 2016). This project, on three adjacent mine project areas involved the clearance of about 10 semi-mature River Oak trees (*Casuarina cunninghamiana*) along the 11 kilometre length of new pipeline. A flora and fauna survey was conducted along the route of the new pipeline in mid-2015, before the EA was submitted with the development modification. The River Oak trees did not form part of any endangered ecological community, nor were found to support any threatened species. For the Ravensworth modification, OEH recommended that 10 new River Oak trees were planted along the bank of Bowmans Creek for each River Oak tree removed. This was accepted by the proponent. It resulted in a new consent condition (Condition 33A of Schedule 4: 'Compensatory Planting') that requires 'The Applicant shall plant and maintain, until established, 10 River Oak trees for every River Oak tree removed during construction

of the tailings pipeline under MOD 6.' An 'established River Oak tree' was considered to be two or more metres in height.

In the case of the current modification, no recent threatened species survey work of the new powerline route appears to have been undertaken. Instead the proponent reviewed local records of threatened species in the Wildlife Atlas and the used the results of survey work for the Glendell Mine undertaken in December 2006 for the preparation of the EA for the Glendell MOD 2 project (Umwelt, 2007: p. 2.4). The impact of the proposed tree trimming required by the new modification was assessed by conducting a 'seven-part test' of significance, as per Section 5A of the *Environmental Planning and Assessment Act 1979*. The EA concluded that the proposed would not have a significant impact on threatened biodiversity and that no offset was required but instead proposed the following mitigation measures (as described in Section 8.1.3 of the EA):

1. Field identification by an appropriately qualified person of the *Acacia pendula* and *Eucalyptus camaldulensis* adjacent the southern existing track will occur prior to any works to be undertaken in the vicinity;
2. A due diligence assessment of each mature tree will be undertaken at the lopping stage:
 - Ten (10) trees will be planted for each mature tree within the Hunter Valley River Oak Forest vegetation type that is severely lopped within Bowmans Creek in the two mature tree areas;
 - Two (2) nesting boxes will be erected for any tree hollow identified that has to be lopped; and
3. Any tree lopping along Bowmans Creek and Swamp Creek will be undertaken manually with chainsaws to allow the root structures to remain in situ; and
4. Designation of a 4 ha area that was previously approved for disturbance in the Glendell EA to be managed by Mt Owen Pty Limited consistent with the commitments of the adjacent HMA. This area will be identified and incorporated into the Mt Owen Complex BMP; and
5. Rehabilitation of relevant areas of removed powerline.

In the absence of a recent threatened species survey (no more than five years old) it is possible that species such as Grey-crowned Babblers may now nest in trees within the path of the proposed relocated powerline easement. Typically this would be assessed by survey ahead of the preparation of an EA. In this case, given the context of the project, this may be addressed through recommended conditions (see below).

The four hectare area of land on the Glendell mine site is located along Betty's Creek and is mapped as 'Central Hunter Swamp Oak Forest'. It is located adjacent to the Habitat Management Area that was established as an offset for the previous Glendell Mine modification (DA 80/952 MOD 2). Therefore, this riparian vegetation likely contains similar values to the Swamp Oak to be cleared to make way for the new section of powerline easement.

The rehabilitation planned for land temporarily cleared for the construction of new power poles is not clearly described (Section 4.4.4 of the EA). OEH acknowledges that this comprises up to 0.06 ha of Central Hunter Swamp Oak Forest, therefore, OEH recommends that this is part of the project is conditioned to set minimum expectations of what the vegetation resulting from the rehabilitation will likely develop into.

Conclusions and Recommended Consent Conditions

OEH acknowledges that the proposed powerline relocation will involve the temporary clearance of up to 0.06 ha of Central Hunter Swamp Oak Forest, and lopping of 1.4 ha of Central Hunter Swamp Oak Forest and 0.65 ha of Hunter Valley River Oak Forest. Mitigation factors for the project include the planting of River Oaks in a ratio of 10:1 for each River Oak that is substantially lopped, and the provision of an area of four hectares of Central Hunter Swamp Oak Forest on the lower reaches of Betty's Creek to be managed as part of the Mt Owen Complex Biodiversity Management Plan. While OEH would typically require a copy of the full assessment to be provided (in this case the seven-part test) and for the assessment of biodiversity values to be based on biodiversity surveys no more than five years old, OEH considers (based on landscape context and available data), and that the woody vegetation is being offset (by compensatory plantings, rehabilitation and the provision of an on-site offset) that the

assessment has been sufficient to enable OEH to complete its review. This is also based on the following recommended consent conditions for threatened biodiversity matters:

1. That the mitigation measures described in Section 8.1.3 of the EA are included in any consent issued.
2. That the threshold of when a River Oak Tree is considered to have been 'severely lopped', and thus requires compensatory planting, is set at loss of half or more of the crown biomass.
3. That the temporary clearing of up to 0.06 ha of Central Hunter Swamp Oak Forest is replanted or naturally regenerated with a suitable mix of canopy, mid-storey and groundcover species (as described in the Section 3.2.3 of Umwelt (2007) and Peake (2006)) so that within 5 (five) years of clearance that the rehabilitated sites have at least 80 per cent of the plant species found in Central Hunter Swamp Oak Forest found elsewhere on the Mt Owen Complex and that it has the tree density and spacing that will likely mean that it will form a forest within twenty (20) years.
4. That impacts on any additional threatened species found during survey ahead of tree lopping or clearing must be suitably offset in accordance with OEH offsetting policy (OEH, 2016).

References:

Department of Planning & Environment (2016) Ravensworth East Mine – Modification 6 – Tailings Pipeline. Determined 16 February 2016. NSW Department of Planning & Environment, Sydney. http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7392

OEH (2016) *NSW Biodiversity Offsets Policy for Major Projects*. NSW Office of Environment and Heritage, Sydney. www.environment.nsw.gov.au/resources/biodiversity/140672biopolicy.pdf

Peake, T.C. (2006) *The Vegetation of the Central Hunter Valley, New South Wales. A Report on the Findings of the Hunter Remnant Vegetation Project*. Hunter – Central Rivers Catchment management Authority, Paterson.

Umwelt (Australia) Pty Limited (2007) Appendix 9: Ecological assessment. In (Umwelt (Australia) Pty Limited *Environmental assessment for Modification of Glendell Mine operations. August 2007*. Umwelt (Australia) Pty Limited, Teralba.



Department of Primary Industries

OUT16/32126

Ms Megan Dawson
Resource Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Megan.dawson@planning.nsw.gov.au

Dear Ms Dawson

Glendell Mine (DA 80/952 MOD 3) Comment on the Environmental Assessment

I refer to your email dated 17 August to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant divisions of DPI. Views were also sort from NSW Department of Industry - Lands that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to landuse.enquiries@dpi.nsw.gov.au.

The Department has reviewed the Environmental Assessment and provides the following comments.

The modification includes the relocation of a powerline within the DA 80/952 project boundary but outside the disturbance boundary with Figure 4 depicting the conceptual powerline easement.

The proposed powerline relocation includes works within waterfront land and the traversing of watercourses. As noted in the Environmental Assessment, Part 2 of Schedule 5 of the *Water Management (General) Regulation 2011* provides an exemption from the requirement to hold a controlled activity approval for activities carried out in accordance with a right in force under the *Mining Act 1992*. However DPI recommends that DPI Water Guidelines for Controlled Activities are considered for any activities on waterfront land.

DPI understands some vegetation clearing is required in accordance with Ausgrid Vegetation Protocols. For disturbance on waterfront land, areas of temporary clearing should be restored and areas of permanent clearing should be offset via appropriate revegetation works, consistent with the DPI Water Guidelines.

The Biodiversity Management Plan (BMP) should be updated to include appropriate riparian revegetation works, consistent with the Guidelines. It is noted that section 8.1.3 of the EA states that the BMP will be updated to include a designation of a 4 ha area which was previously approved for disturbance, however it is recommended that the total area of riparian vegetation which is removed is also offset via revegetation works with riparian corridor widths in line with the DPI Water guidelines. This offsetting and maintenance should occur in consultation with DPI Water.

DPI also notes analysis undertaken in relation to the preferred route described in section 4.5. It is demonstrated in Table 3 that DPI Water recommended that the EA include robust justification for the selected alignment and alternatives considered. It is noted that the alternative routes are not described in detail in the EA, nor is the feasibility assessment of each individual alternative included in the EA. It is recommended that the proponent provide a more robust justification for the selection of the preferred route.

It is understood that the geotechnical investigations previously undertaken have indicated that the project will not involve any interception of the water table, as such groundwater impacts or licensing are not issues that require further consideration in determining this modification. Nevertheless, should the proponent intercept groundwater through this project, DPI Water should be notified immediately.

For further information on controlled activities please see the following link:
<http://www.water.nsw.gov.au/water-licensing/approvals/controlled-activity>

Should you require any further information please contact Hannah Grogan, Water Regulation Officer (Newcastle) on (02) 4904 2516.

Yours sincerely



Mitchell Isaacs
Director, Planning Policy & Assessment Advice
31 August 2016



OUT16/31249

Megan Dawson
Planning Officer
Resource Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001
megan.dawson@planning.nsw.gov.au

Dear Ms Dawson

Re: Glendell Mine - Modification 3 132 kV Powerline Relocation - August 2016

The Department of Industry, Division of Resources and Energy (DRE) has been requested by the Department of Planning and Environment (DPE) to review and assess the adequacy of information in relation to the Glendell Mine - Modification 3 132 kV Powerline Relocation - August 2016 Environmental Assessment (EA).

Key Points:

- The proposed power line relocation does not change the mine design as described in the approved Mining Operations Plan (MOP) for the Mt Owen Complex.
- The proposed power line relocation does not change the conceptual final landform design, rehabilitation objectives or domains as described in the approved MOP for the Mt Owen Complex, which includes the Glendell Mine.
- Rehabilitation methodologies would not change for the section of easement that is located within the Glendell Mine pit shell as described in the approved MOP for the Mt Owen Complex.
 - Sections outside of the pit shell would be rehabilitated by Ausgrid in accordance with Ausgrid environmental standards.
- No options analyses were provided for the power line relocation. The route was selected in consultation with Ausgrid.

Recommendations:

The Division provides the following advice:

- The proposed power line, if approved, should be identified on MOP plans to maintain consistency with the approved MOP plans. No further information is required.

Should you have any enquires regarding this matter please contact Steve Cozens, Senior Project Officer, Royalties and Advisory Services, on (02) 9842 8573.

Yours sincerely

Zane West
Manager Royalty & Advisory Services
Operations & Programs



DOC16/435955; EF13/4478

Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Megan Dawson
megan.dawson@planning.nsw.gov.au

Dear Ms Dawson

LENDELL MINE – MODIFICATION 3 (DA 80/952 MOD 3)

I refer to your email to the Environment Protection Authority (EPA), dated 17 August 2016, regarding the modification application for Lendell Coal Mine, application reference DA 80/952 Mod 3. The EPA understands this application relates to the proposed relocation of 2.7km of an existing 132 kilovolt Ausgrid powerline.

Based on the information provided in the report titled '*Lendell Mine – 132 Kv Powerline Relocation Modification 3 Environmental Assessment*', dated August 2016, the modification appears to be minor in nature in that there is minimal risk of potential environmental impacts from the proposed works.

As the proposal does not appear likely to result in any significant environmental impacts or risks the EPA does not have any specific comments or proposed conditions to provide in relation to this matter.

If you require any further information regarding this matter please contact me on 4908 6819 or by email to hunter.region@epa.nsw.gov.au

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Michael Howat'.

MICHAEL HOWAT
A/Head Regional Operations Unit - Hunter
Environment Protection Authority

Megan Dawson
Planning Officer
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Email: <mailto:megan.dawson@planning.nsw.gov.au>

18 August 2016

Dear Megan

Glendell Mine – Modification 3 (DA 80/952 MOD 3)

Thank you for forwarding the Environmental Assessment (EA) for ARTC's review, accordingly I advise that the proponent has made representations to ARTC to facilitate the relocation of the existing 132 kV Ausgrid powerline at the Glendell Mine.

Accordingly, the proponent and ARTC will continue to liaise throughout the project with respect to the overhead crossing of the Main Northern Railway, subject to;

1. Final design plans complying with ARTC Standards, Australian Standards, Heavy Haul Infrastructure Guidelines and any reasonable requirements of ARTC and the design is to consider the following;
 - All structures supporting a span of electric aerials over ARTC railway tracks or sidings shall be so located that in the event of failure no part of them will fall within 1.8m of the outside rail of any railway track in accordance with PYS 02, and
 - Potential induction with existing ARTC infrastructure.

Should you require further information with regard to this matter please do not hesitate to contact the undersigned on (0)2 4941 9619.

Yours sincerely



Teena Renés
Property Manager, Newcastle

From: Ihlein, Mark [mailto:mihlein@singleton.nsw.gov.au]
Sent: Tuesday, 30 August 2016 10:23 AM
To: Megan Dawson <Megan.Dawson@planning.nsw.gov.au>
Subject: RE: Glendell Mine Mod 3

Thank you Megan – all received.

The proposed modified route does not impact on any Singleton Council infrastructure and nor does it give rise to any amenity impacts.

The project is minor and Singleton Council has no specific requirements.

Regards
Mark

Mark Ihlein
Director Planning and Infrastructure
Singleton Council

 The logo features the text 'SINGLETON 2027' in a bold, blue, distressed font. To the right is a stylized Instagram camera icon with a purple-to-orange gradient. Below these elements is the hashtag '#singleton2027' in a bold, purple font.	<p>WHAT'S YOUR 10-YEAR VISION FOR SINGLETON? Take a pic that captures what you want for Singleton in 2027, share it on Instagram using #singleton2027 and you could win \$1,000! Entries close 5pm on 29 July 2016. T&Cs apply. See website for details.</p> <p>Join the conversation at: singleton.engagementhub.com.au</p>
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2 September 2016



Megan Dawson
Department of Planning and Environment
GPO Box 39
Sydney, NSW, 2001
Australia

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Sydney NSW 2000
All mail to GPO Box 4009
Sydney NSW 2001
T +61 2 131 365
www.ausgrid.com.au

Dear Megan,

RE: Request for Comment - Glendell Mine Modification 3 (DA 80/952 MOD3)

Ausgrid acknowledges the receipt of your request for comment for the above modification provided on the 17th August 2016 and welcomes the opportunity to provide comment on this modification. We recognise Ausgrid is a key stakeholder in the development of this relocation, particularly as it will be the end owner of the proposed line. Ausgrid has reviewed DA 80/952 MOD and would like to provide the following feedback on the application. In developing this feedback, Ausgrid has considered the level of detail normally provided with regards to its self-approving responsibility under Part 5 of the EP&A Act. Ausgrid recognises that this has been carried out for comparison purposes only and does not form part of any approval for this modification.

Asset Ownership, Operation and Maintenance

Ausgrid would like to indicate that the proposed 132kV relocation will, on completion of the proposed works, become an Ausgrid asset. As such construction, operation and maintenance of this line will be carried out under the Electricity Supply Act. This document does not appear to have been referenced in the modification documentation.

We also note that Ausgrid's ongoing arrangements for operations and maintenance, which have not developed under the state significant approval will also be utilised for the proposed line. While Ausgrid believe their ongoing maintenance and operational practices will be consistent with the intent of the environmental approvals for the site, it has not carried out any detailed assessment in this regard. We suggest that consideration of this in the approval of this modification may be required (subject to the Department of Planning's assessment of the modification).

Environmental and Ecological review

Ausgrid's review of the environmental arrangements proposed in the modification indicates that there appears to be a deficiency in the level of detail provided in the assessment in comparison to an environmental approval Ausgrid would carry out under its self-approving arrangements. We identify that potentially additional information may have been made available in the original mine approval and that this remains within the Department of Planning and Environment's scope of approval. However Ausgrid has the following comments:

1. The 132kV relocation is identified as being within the approval boundary but outside the disturbance boundary for the mine's approval. We note that this has been identified and would suggest some clarification on the impact this has on the environmental arrangements, assessments and approvals is included in the documentation.

2. The use and impact of access tracks for the modification appears to lack detail. We note that the proposed access arrangements provided to Ausgrid in the proposed design (sheet 19), include access to poles being through the 132kV easement for the majority of the route. This appears to include access through swamp creek. As Ausgrid requires the access tracks to provide 24/7 all-weather access to the proposed poles, it is assumed that additional access works through swamp creek will be required but do not appear to have been assessed. Ausgrid intends under operations and maintenance conditions to only access these poles via rights of way and easements established as a part of the proposed project.
3. We note that the assessment indicates the selected location of poles is a "substantial" distance from the Bowman and Swamp Creek areas (section 4.3.2) although this distance is not defined. Poles 1, 2, 3 and 10 on the route appear to be in close proximity to Bowman's and Swamp Creek. Ausgrid suggests additional detail may be required to confirm this still meets the definition of a substantial distance from these areas and that these poles will not affect sensitive areas along the route.
4. Section 4.4.2 of the modification indicates that access tracks works will be carried out in accordance with *NS174 Environmental Handbook for Construction and Maintenance*. We note that NS174 has been developed for Ausgrid specific projects carried out under Ausgrid's environmental self-approval arrangements. Ausgrid provides no warranty that this documentation will be consistent with the overall state significant mining approval and subsequent environmental compliance. We also note that this document has not been provided by Ausgrid to form part of the modification approval and may potentially be changed by Ausgrid over the life of this project. We recommend that project environmental controls for this project do not utilise this document but are site specific and consistent with the overall state significant approval.
5. We note that there are a number of statements throughout the modification relating to the suitability of the route and construction arrangements from an ecological perspective. As no detailed ecological assessment has been provided as part of the modification submission, we note that this cannot be confirmed. Ausgrid suggests that a detailed ecological assessment be included within the modification documents. Without this, there is a concern that there is a lack of assessment of the impacts on possible threatened species and overall sensitive features such as Swamp and Bowman creeks.

Thank you for the opportunity to comment on the proposed DA 80/952 modification. Please contact me via email or via my direct number (02 9394 6659) should you wish to discuss Ausgrid's comments further.

Regards,



James Hart

Manager – Environmental Services

Network Services

Ausgrid



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Ref No: DOC16/432072

Megan Dawson
Planning Officer, Resource Assessments
Department of Planning and Environment
GPO Box 39
Sydney, NSW 2001
Sent via email to: Megan Dawson, Megan.Dawson@planning.nsw.gov.au

Dear Ms Dawson

RE: Glendell Mine — Modification 3 (DA 80/952 MOD 3)

I refer to your email dated 29 August 2016 seeking comments on the modification application for the Glendell Mine, in the Singleton Local Government Area. The report entitled *132 Kv Powerline Relocation MOD 3 Environmental Assessment* is reviewed and as the delegate of the Heritage Council of NSW, I provide the following comments:

The proposed modification, MOD 3 to DA 80/952 seeks to facilitate the relocation of a section of the existing 132 kV powerline. The proposed realignment is entirely within the existing DA 80/952 project boundary but is outside of the approved disturbance boundary.

It is noted that no item of state heritage significance is in the proximity of the proposed realignment site. There are however items of local heritage significance within the project boundary (but outside the approved disturbance boundary) that were identified in *Historical Heritage Assessment for Modification of Glendell Mine* as part of the Glendell Environmental Assessment. None of these local items – except for two former homes (Hillview homestead sites) which no longer exist – will be affected by the proposed relocation works. The report does not discuss in detail the potential for any significant historic archaeology or relics that may be uncovered on the site given the early settlement in area evidenced by the presence of homesteads. Hence, although no objection is raised to the proposed modification, it is recommended that if significant relics were uncovered during the construction phase, the proposal should be modified to minimise harm to such relics.

If you have any questions regarding the above matter please contact Vibha Bhattarai Upadhyay, Heritage Assessment Officer, at the Heritage Division, Office of Environment and Heritage on 9873 8587 or at vibha.upadhyay@environment.nsw.gov.au.

Yours sincerely,

Rajeev Maini
Acting Manager, Conservation
Heritage Division
Office of Environment & Heritage
As Delegate of the NSW Heritage Council
09/09/2016