



19 June 2017

Mr Howard Reed  
Director Resource Assessments  
Department of Planning & Environment  
GPO Box 39  
Sydney NSW 2001

Dear Mr Reed

**Re: Mandalong Mine Mod 5 – Response to Submissions**

Centennial Mandalong lodged an application and supporting Statement of Environmental Effects (SEE) to modify the State Significant Development consent for the Mandalong Southern Extension Project (SSD-5144). The proposed modification (MOD 5) is seeking an extension to existing longwall panel 24 and the extraction of an additional longwall panel, 24A, within the current SSD-5144 development consent boundary.

The application and supporting SEE were placed on public exhibition from 25 May 2017 to 8 June 2017. Six government agency submissions and two public submissions were received during the public exhibition period. Of the two public submissions received, one submission was in support of the modification and one submission provided comments on the modification for consideration.

Additional matters requiring clarification were raised by the Department of Planning and Environment in correspondence dated 13 June 2017.

The attached provides a response to issues raised in submissions received from government agencies and the public during the public exhibition of the SEE for Mandalong Mine MOD 5.

If you have any questions or require any further information in regards to this request, please contact me on my mobile 0407 207 530 or email [james.wearne@centennialcoal.com.au](mailto:james.wearne@centennialcoal.com.au).

Yours sincerely

James Wearne  
**Group Approvals Manager**

## **Attachment 1**

### **Response to Submissions – Mandalong Mine MOD 5**

#### **Subsidence**

##### ***Issue (DPE)***

DPE requests additional information / clarification regarding potential subsidence impacts on transmission towers 45 to 47. Section 5 of the Subsidence Predictions Report concludes that predicted strains would have an adverse impact on transmission towers, and that these impacts require "specific attention". However, no further detail is provided and no further mitigation or management measures have been proposed.

##### ***Response***

It is acknowledged that, based on the subsidence predictions for transmission towers 45-47 inclusive, these towers will require specific mitigation measures to be implemented to ensure they remain safe and serviceable during and after underground mining. Mitigation measures will involve the installation of concrete cruciform footings on each tower to ensure the transmission towers remain safe and serviceable. Centennial entered into a commercial arrangement with TransGrid to design and construct the cruciform footings and construction commenced in March 2017. The installation of the concrete cruciform footings on towers 45, 46 and 47 is now almost complete. The planned completion date for the mitigation work is during August 2017, prior to the commencement of extraction activities within longwalls 22-23 and the proposed 24 and 24A.

These mitigation measures are described in the Transmission Line Management Plan developed in consultation with TransGrid as part of the Extraction Plan for longwalls 22 and 23 and will be further detailed in the Transmission Line Management Plan that will be developed to support the Extraction Plan for longwalls 24 and 24A.

##### ***Issue (Subsidence Advisory NSW)***

Subsidence Advisory NSW recommends commercial agreements are established prior to mining detailing compensation arrangements between the colliery and the asset owner.

It should also be noted, proposed changes to *Mine Subsidence Compensation Act 1961* are planned to be implemented in 2018 and mining impacts under this modification will potentially be managed under the new legislative framework. This will result in collieries being responsible for the compensation of impacts caused by their operations.

##### ***Response***

Prior to the commencement of mining Centennial Mandalong will develop an Extraction Plan for longwalls 24-24A. The Extraction Plan will be developed in accordance with relevant legislation and guidelines. As part of the development of the Extraction Plan for longwalls 24-24A, Centennial Mandalong will develop various management plans for the management of subsidence impacts on surface infrastructure. These management plans will be developed in consultation with the asset owners and will detail the actions to be taken by Centennial Mandalong in response to unexpected subsidence impacts. This will include detailing how any damage to private or public assets will be restored, repaired or compensated for, should such actions be required.

Any changes to the mine subsidence compensation process brought about by amendments to the *Mine Subsidence Compensation Act 1961* will be dealt with in accordance with the requirements of the amended legislation.

## **Biodiversity**

### ***Issue (OEH)***

That any harm to threatened biodiversity caused by the mining of the new longwall panel areas is assessed, and, if required, is offset in accordance with the *NSW Biodiversity Offsets Policy for Major Projects* (OEH, 2014a).

### ***Response***

The proposed modification is only predicted to have subsidence related impacts to biodiversity, which are defined as negligible under Section 2.3.1.2 (c) of the Framework for Biodiversity Assessment. In accordance with the Framework for Biodiversity Assessment, subsidence related impacts are not required to be assessed. Therefore there is currently no specific offset strategy proposed for the project.

In accordance with Schedule 4 Table 6 of the conditions of consent for the Mandalong Southern Extension Project (SSD-5144), Centennial Mandalong are required to ensure that there is no greater than negligible environmental consequences to threatened species, threatened populations and endangered ecological communities. The proposed modification does not predict any greater than negligible environmental consequences to threatened species, threatened populations or endangered ecological communities.

Should greater than negligible environmental consequences be identified through monitoring, as a result of mining operations, Centennial Mandalong will either implement remediation measures or provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the Secretary, as required by Schedule 4 Condition 3 of the SSD-5144 conditions of consent.

Monitoring for biodiversity impacts, associated with underground mining operations, will be undertaken in accordance with the Northern Region Biodiversity Management Plan, the associated site specific Biodiversity Management Plan for the Mandalong Mine and the Biodiversity Management Plan prepared as part of the Extraction Plan for longwalls 24 and 24A. The Northern Region Biodiversity Management Plan and site specific Biodiversity Management Plan for the Mandalong Mine were submitted to the Department of Planning and Environment for approval on 19 December 2016. Following approval, Centennial Mandalong will complete a review and, if required, update of these management plans to ensure they adequately address the management of biodiversity impacts from the extraction of longwalls 24 and 24A. The Biodiversity management Plan for the Extraction plan for longwalls 24 and 24A will be submitted and approved prior to the commencement of extraction within these longwalls.

## **Aboriginal Cultural Heritage**

### ***Issue (DPE)***

Table 12 refers to predicted subsidence impacts associated with Longwall 23, rather than Longwalls 24 and 24A, which are the subject of the current modification application.

### ***Response***

Table 12 of the Aboriginal heritage Impact Assessment identifies the location of the scarred tree (AHIMS # 45-3-3678) in relation to the longwall panels. The scarred tree, as shown on the figures within both the Aboriginal Heritage Impact Assessment and Statement of Environmental Effects, is within longwall panel 24 however also within the Angle of Draw of longwall 23. It is acknowledged the description for the location of the scarred tree is confusing, however the subsidence predictions provided are based on the extraction of longwalls 24 and 24A.

### ***Issue (DPE)***

Section 11.2.2 states that there are no identified impacts to the Aboriginal sites and thus no immediate mitigation or management is required. The Department questions the accuracy of this statement, given the predicted subsidence impacts identified in Table 12.

### ***Response***

Subsidence predictions for scarred tree (AHIMS # 45-3-3678) are provided for in Table 12 of the Aboriginal Heritage Impact Assessment (RPS 2017). The subsidence predictions are based on the same prediction methodology and visualisation procedures used to date at the Mandalong Mine. Subsidence outcomes have been reviewed at the end of each longwall panel and there has been continuous improvement in the selection of some of the key input parameters into the subsidence model to ensure that the subsidence model and associated predictions are robust. Centennial Mandalong have demonstrated a close correlation between predicted subsidence and actual subsidence experienced. As such, the subsidence predictions at AHIMS # 45-3-3678 are considered robust.

The scarred tree is a living tree on solid ground and thus is considered stable. As such, impacts from the subsidence levels predicted on this site are considered unlikely.

Centennial Mandalong have developed a monitoring program for all Aboriginal heritage sites predicted to be impacted by subsidence. The monitoring program is detailed in the Northern Region Aboriginal Cultural Heritage Management Plan and comprises an initial baseline survey of the site immediately prior to mining, a post mining survey of the site immediately after mining beneath the site is completed, a post mining secondary inspection undertaken approximately 8 months after mining beneath the site has been completed and, should it be required, a post mining survey undertaken following the completion of subsequent extracted longwalls.

The Registered Aboriginal Parties are invited to attend each monitoring phase as is detailed within the Northern Region Aboriginal Cultural Heritage Management Plan. During the monitoring, potential mitigation options are discussed with the Registered Aboriginal Parties. Mitigation measures may be implemented at any phase of the monitoring program to reduce the likelihood of impact or minimise further impacts occurring. For scarred trees, these mitigation measures may involve erecting a non-invasive framework which may be in the form of bracing or other exterior supports.

The requirements for mitigation measures to be implemented on Aboriginal heritage sites are developed in consultation with the Registered Aboriginal Parties and are dependent on the likelihood of impact, the extent of impact occurring, the cultural sensitivities of the site, and the likelihood of further impacts to the site occurring.

Considering impacts to the scarred tree were predicted to be unlikely, no pre-emptive mitigation measures were considered necessary. Should monitoring identify the need for mitigation measures, these measures will be discussed with the Registered Aboriginal Parties during proposed monitoring as is detailed within the Northern Region Aboriginal Cultural heritage Management Plan.

### ***Issue (OEH)***

The significance of AHIMS site number 45-3-3678 must be assessed in consultation with the registered Aboriginal parties prior to the commencement of any ground disturbance or development works subject to this development.

### ***Response***

As detailed in Section 9.4.2 of the Statement of Environmental Effects, correspondence issued to the Registered Aboriginal Parties on 12 August 2016 provided a draft copy of the Heritage Impact

Assessment for review, invited them to attend a field inspection of identified Aboriginal heritage sites and invited them to provide a cultural ranking on the site.

No Registered Aboriginal Parties accepted the invitation to attend the field survey and no feedback was received on the draft Heritage Impact Assessment. No feedback was received from Registered Aboriginal Parties regarding the cultural significance ranking of the Aboriginal heritage sites located in the Study Area, including AHIMS site number 45-3-3678.

Centennial Mandalong will commit to providing the Registered Aboriginal Parties an opportunity to provide a cultural significance assessment of this AHIMS site during the phase 1 monitoring undertaken immediately prior to mining.

### ***Issue (OEH)***

Management recommendations for AHIMS site number 45-3-3678 must be developed in consultation with the registered Aboriginal parties prior to the commencement of any ground disturbance or development works subject to this development.

### ***Response***

Centennial Mandalong have developed a monitoring program for all Aboriginal heritage sites predicted to be impacted by subsidence. The monitoring program is detailed in the Northern Region Aboriginal Cultural Heritage Management Plan and comprises an initial baseline survey of the site immediately prior to mining, a post mining survey of the site immediately after mining beneath the site is completed, a post mining secondary inspection undertaken approximately 8 months after mining beneath the site has been completed and, should it be required, a post mining survey undertaken following the completion of subsequent extracted longwalls.

The Registered Aboriginal Parties are invited to attend each monitoring phase as is detailed within the Northern Region Aboriginal Cultural Heritage Management Plan. During the monitoring, potential mitigation options are discussed with the Registered Aboriginal Parties. Mitigation measures may be implemented at any phase of the monitoring program to reduce the likelihood of impact or minimise further impacts occurring. For scarred trees, these mitigation measures may involve erecting a non-invasive framework which may be in the form of bracing or other exterior supports.

Considering impacts to the scarred tree were predicted to be unlikely, no pre-emptive mitigation measures were considered necessary. Should monitoring identify the need for mitigation measures, these measures will be discussed with the Registered Aboriginal Parties during proposed monitoring as is detailed within the Northern Region Aboriginal Cultural heritage Management Plan.

### ***Issue (OEH)***

The proponent must update the existing Northern Region Aboriginal Cultural Heritage Management Plan to include the location, significance and any additional Aboriginal cultural heritage management constraints identified within the modification area prior to the commencement of any ground disturbance or development works subject to this development.

### ***Response***

The Northern Region Aboriginal Cultural Heritage Management Plan has been updated to incorporate scarred tree (AHIMS # 45-3-3678) and relevant information regarding the Mandalong MOD 5 study area. The revised Northern Region Aboriginal Cultural Heritage Management Plan was submitted to the Department of Planning and Environment on 19 September 2016. No approval of the revised Northern Region Aboriginal Cultural Heritage Management Plan has been received to date.

### ***Issue (OEH)***

The Aboriginal cultural heritage management for the proposed modification area must be undertaken in accordance with the management recommendations detailed in the updated Northern Region Aboriginal Cultural Heritage Management Plan.

### ***Response***

Following approval, Centennial Mandalong will implement the Northern Region Aboriginal Cultural Heritage Management Plan dated September 2016.

### **Flooding**

#### ***Issue (Submission ID 211913)***

There is further expansion of agricultural use of the land. It is important for future use that there is no further increase to flooding. Agricultural use includes: Livestock, Oranges and Truffles with a vision of expanding into other diverse varieties.

#### ***Response***

The Statement of Environmental Effects acknowledges that the properties within the MOD 5 Study Area are utilised as residential dwellings with small scale agricultural activities, including orchards (citrus and berries), biodynamic farming and hobby farming activities (cattle and horses).

For all properties it was determined that there will be negligible impacts on the current land uses of these properties or the lifestyle of the affected residents. The Agricultural Impact Statement, prepared by SLR to support the Statement of Environmental Effects for the proposed Modification, concluded that land use and agricultural productivity over the proposed Longwalls 24 and 24A is expected to remain similar to the pre-mining potential and any impact would be minor and temporary, and could be managed by remediation measures and management strategies.

The Property Subsidence Management Plans, prepared as part of the Extraction Plan for LW24-24A, will provide for the management of subsidence impacts on properties. Any damage will be repaired or remediated in consultation with the landowner.

### **Property Subsidence Management Plans**

#### ***Issue***

No test of lining boards of dwelling to determine product. Test not yet completed. I believe the house is located in longwall 24A.

#### ***Response***

Development of Property Subsidence Management Plans for all privately owned properties within the longwall 24 and 24A subsidence extents has commenced. These Property Subsidence Management Plans will be finalised in consultation with the landowner prior to being submitted to support the longwall 24-24A Extraction Plan. The development and implementation of Property Subsidence Management Plans will include undertaking pre and post mining structural surveys of dwellings within the subsidence extents for LW24 and 24A. Where impacts to dwellings as a result of subsidence are identified, mitigation measures will be implemented in accordance with the agreed mitigations detailed in the Property Subsidence Management Plans. ACOR Consultants conducted a pre-mining structural assessment of this particular property due to concerns raised by the landowner regarding subsidence impacts on asbestos lining boards within the dwelling, ACOR Consultants advised the landowner that the wall linings were not asbestos.

## **Compensation**

### ***Issue (Submission ID 211913)***

Compensation should be provided for impacts to privately owned land arising from required works for Centennials project undertaken by TransGrid, occurring due to proposed subsidence that may affect the stanchions integrity.

### ***Response***

The proposed mitigation works to transmission line towers within the MOD 5 study area are being undertaken by TransGrid who own and manage the infrastructure. Centennial Mandalong offered access agreements, which comprised a level of compensation for activities required to be undertaken, to all landowners whose properties were to be affected by these activities. If landowners did not sign up to the access agreement offered by Centennial Mandalong, TransGrid progressed to undertake the required works without the agreement of landowners, as allowed for under the legislation. These works are required to ensure the transmission line towers remain safe and stable as a result of subsidence and to ensure energy can be supplied to the residents of NSW without significant interruptions occurring as a result of their infrastructure being impacted.