



WAMBO COAL PTY LTD

NORTH WAMBO UNDERGROUND MINE LONGWALL 10A MODIFICATION ENVIRONMENTAL ASSESSMENT

ATTACHMENT 2

Relevant Environmental Planning Instruments
and Government Policies

A2 PLANNING FRAMEWORK

This Attachment provides further discussion on the requirements and application of environmental planning instruments and relevant NSW government policy to the Modification.

References to Sections 1 to 5 in this Attachment are references to the sections of the Main Report of the EA. Internal references within this Attachment are prefixed with “A2”.

A2.1 SINGLETON LOCAL ENVIRONMENTAL PLAN 2013

The Wambo Coal Mine is wholly within the Singleton LGA (Figure 1). The following sub-sections identify the provisions in the Singleton LEP which have relevance to the Modification.

Wambo lies wholly within land zoned RU1 “Primary Production”.

Under the Singleton LEP “open cut mining” is permissible on lands in the RU1 Zone with development consent. Underground mining is not listed as a permissible use under the Singleton LEP.

The Singleton LEP states:

Note. A type of development referred to in the Land Use Table is a reference to that type of development only to the extent it is not regulated by an applicable State environmental planning policy. The following State environmental planning policies in particular may be relevant to development on land to which this Plan applies:

...

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

...

Clause 4 of the Mining SEPP relevantly provides:

4 Land to which Policy applies

This Policy applies to the State.

Clause 5(3) gives the Mining SEPP primacy where there is any inconsistency between the provisions in the SEPP and the provisions in any other environmental planning instrument (subject to limited exceptions).

Clause 5(3) relevantly provides:

5 Relationship with other environmental planning policies

- (3) ... if this Policy is inconsistent with any other environmental planning instrument, whether made before or after this Policy, this Policy prevails to the extent of the inconsistency.

The practical effect of clause 5(3) for Wambo is that if there is any inconsistency between the provisions of the Mining SEPP and those contained in the Singleton LEP, the provisions of the Mining SEPP will prevail.

Clauses 6 and 7 of the Mining SEPP provide what types of mining development are permissible without development consent and what types are permissible only with development consent. In this regard, clause 7(1) states:

7 Development permissible with consent

(1) Mining

Development for any of the following purposes may be carried out only with development consent:

- (a) *underground mining carried out on any land,*

...

The term ‘underground mining’ in the Mining SEPP is given an extended definition in clause 3(2) as follows:

underground mining means:

- (a) *mining carried out beneath the earth’s surface, including bord and pillar mining, longwall mining, top-level caving, sub-level caving and auger mining, and*
- (b) *shafts, drill holes, gas and water drainage works, surface rehabilitation works and access pits associated with that mining (whether carried out on or beneath the earth’s surface),*

but does not include open cut mining.

The effect of clause 7(1), in conjunction with the operation of clause 5(3) of the Mining SEPP, is that notwithstanding any prohibition contained in the land use table of the Singleton LEP, the Wambo Coal Mine may be carried out with development consent.

Clause 2.3(2) of the Singleton LEP relevantly provides:

- (2) *The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.*

The consent authority for the Modification is the Minister for Planning (Section 5.1).

Under the Singleton LEP the objectives of the RU1 Zone are:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*

The Modification is consistent with the general objectives of the RU1 zone as mining is a primary industry and the Modification would enhance the productivity of the Wambo.

The Modification would not significantly alter the compatibility of the Wambo with adjoining land uses and agistment of stock would be able to continue in the Modification area following subsidence remediation.

A2.2 STATE ENVIRONMENTAL PLANNING POLICIES

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

The Mining SEPP regularises the various environmental planning instruments that previously controlled mining activities.

Clause 5(3) of the Mining SEPP gives it primacy where there is an inconsistency between the provisions of the Mining SEPP and the provisions of any other environmental planning instrument (except the *State Environmental Planning Policy (Major Development) 2005*, *State Environmental Planning Policy No. 14 [Coastal Wetlands]* and *State Environmental Planning Policy No. 26 [Littoral Rainforest]*).

Clause 2

Clause 2 sets out the aims of the Mining SEPP as follows:

- (a) *to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and*
- (b) *to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and*
- (c) *to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of mineral, petroleum and extractive material resources.*

Clause 7

Clause 7(1) of the Mining SEPP states that development for any of the following purposes may be carried out only with development consent:

- (a) *underground mining carried out on any land,*
- (b) *mining carried out:*
- ...
- (ii) *on land that is, immediately before the commencement of this clause, the subject of a mining lease under the Mining Act 1992 or a mining licence under the Offshore Minerals Act 1999,*

The Modification comprises mining within existing Wambo mining and coal leases (Figure 2).

Clause 12

Clause 12 of the Mining SEPP requires that, before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must:

- (a) *consider:*
- (i) *the existing uses and approved uses of land in the vicinity of the development, and*

- (ii) *whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and*
- (iii) *any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and*
- (b) *evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a) (i) and (ii), and*
- (c) *evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a) (iii).*

Land use in the vicinity of Wambo is characterised by a combination of coal mining operations, agricultural land uses and the village of Warkworth. Land use in the Modification area includes areas of vegetation and cleared grazing land and is wholly located on WCPL-owned land.

The potential impacts of the Modification on existing agricultural improvements, mining-related infrastructure and vegetation as a result of mine subsidence are described in Appendices A and E and summarised in Sections 4.2, 4.3 and 4.7.

The Modification would not result in additional noise and air quality impacts to adjoining land users as it would use the current North Wambo Underground Mine major surface infrastructure and would not alter the operation of the mine (Section 4.1).

The Modification would allow for the extraction of additional coal reserves adjoining the existing North Wambo Underground Mine that can be economically mined with underground mining methods.

WCPL would, where practicable, implement a range of measures to avoid or minimise incompatibility of the Modification with existing and future land uses in the Modification area. This would be achieved through the implementation of the existing Wambo environmental management system.

Clause 12AA

Clause 12AA of the Mining SEPP requires that:

- (1) *In determining an application for consent for development for the purposes of mining, the consent authority must consider the significance of the resource that is the subject of the application, having regard to:*
 - (a) *the economic benefits, both to the State and the region in which the development is proposed to be carried out, of developing the resource, and*
 - (b) *any advice by the Director-General of the Department of Trade and Investment, Regional Infrastructure and Services as to the relative significance of the resource in comparison with other mineral resources across the State.*
- (2) *The following matters are (without limitation) taken to be relevant for the purposes of subclause (1) (a):*
 - (a) *employment generation,*
 - (b) *expenditure, including capital investment,*
 - (c) *the payment of royalties to the State.*
- (3) *The Director-General of the Department of Trade and Investment, Regional Infrastructure and Services is, in providing advice under subclause (1) (b), to have regard to such matters as that Director-General considers relevant, including (without limitation):*
 - (a) *the size, quality and availability of the resource that is the subject of the application, and*
 - (b) *the proximity and access of the land to which the application relates to existing or proposed infrastructure, and*
 - (c) *the relationship of the resource to any existing mine, and*
 - (d) *whether other industries or projects are dependent on the development of the resource.*
- (4) *In determining whether to grant consent to the proposed development, the significance of the resource is to be the consent authority's principal consideration under this Part.*

- (5) *Accordingly, the weight to be given by the consent authority to any other matter for consideration under this Part is to be proportionate to the importance of that other matter in comparison with the significance of the resource.*
- (6) *To avoid doubt, the obligations of a consent authority under this clause extend to any application to modify a development consent.*

The Modification would allow the recovery of an additional 1.9 Mt of ROM coal. Wambo produces metallurgical and thermal coal for export and domestic customers.

The development of first workings for the proposed Longwall 10A and the Modification would extend employment for the North Wambo Underground Mine workforce by approximately 6 months.

The Modification is a natural extension to the existing approved North Wambo Underground Mine. The additional coal would be mined by the proposed Longwall 10A using the existing surface infrastructure of the North Wambo Underground Mine and would require no additional surface disturbance.

Clause 14

Clause 14(1) of the Mining SEPP requires that, before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the approval should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following:

- (a) *that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,*
- (b) *that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,*
- (c) *that greenhouse gas emissions are minimised to the greatest extent practicable.*

In addition, clause 14(2) requires that, without limiting clause 14(1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programmes or guidelines concerning greenhouse gas emissions.

The potential impacts of the Modification on groundwater and surface water resources are discussed in Sections 4.4 and 4.5, including measures to minimise potential impacts which are described in Sections 4.4.2 and 4.5.2. The potential impacts of the Modification on threatened species and biodiversity are described in Sections 4.7 and 4.8, including measures to minimise potential impacts which are described in Sections 4.7.2 and 4.8.2.

Existing Wambo greenhouse gas abatement measures and the Modification greenhouse gas emissions estimate are described in Section 4.9.1. This section of the EA provides a quantitative assessment of potential scope 1, 2 and 3 greenhouse gas emissions of the Modification.

Clause 15

Clause 15 of the Mining SEPP requires that:

- (1) *Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery.*
- (2) *Before granting consent for the development, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material.*
- (3) *The consent authority may refuse to grant consent to development if it is not satisfied that the development will be carried out in such a way as to optimise the efficiency of recovery of minerals, petroleum or extractive materials and to minimise the creation of waste in association with the extraction, recovery or processing of minerals, petroleum or extractive materials.*

The Modification would allow for the extraction of additional coal reserves adjoining the existing North Wambo Underground Mine that can be economically mined with underground mining methods. It is in WCPL's financial interest to maximise the efficiency of coal recovery and minimise the generation of coal reject which requires disposal.

Clause 16

Clause 16(1) of the Mining SEPP requires that, before granting consent for development for the purposes of mining or extractive industry that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any one or more of the following:

- (a) *require that some or all of the transport of materials in connection with the development is not to be by public road,*
- (b) *limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,*
- (c) *require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.*

The primary public road network transport routes to and from Wambo include routes that are adjacent to rural areas, industrial/commercial areas, residential areas and schools.

Wambo product coal would continue to be transported from site by rail.

As the maximum production rate at Wambo would not change as a result of the Modification and the Modification would not result in any additional demand for employees/contractors, there would be no change in the vehicle movements associated with consumable deliveries or employee and contractor vehicle movements to Wambo.

Given the above, it is considered the Modification would not result in any significant changes to the potential road transport impacts of Wambo.

Clause 17

Clause 17 of the Mining SEPP requires that before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the approval should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development. In particular, the consent authority must consider whether conditions of the consent should:

- (a) *require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or*
- (b) *require waste generated by the development or the rehabilitation to be dealt with appropriately, or*
- (c) *require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under section 145C of the Act and the Contaminated Land Management Act 1997), or*
- (d) *require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation, does not jeopardize public safety.*

At the cessation of the Modification (i.e. completion of mining the proposed Longwall 10A), a rehabilitation programme would be implemented for the Modification area (Section 3.9). The proposed management of coal reject material is discussed in Section 3.5 and the management of other wastes is described in Section 2.6. One of the key Wambo rehabilitation objectives is the creation of safe, stable, adequately drained post-mining land that is consistent with the surrounding landscape (Section 2.11).

State Environmental Planning Policy No. 33 (Hazardous and Offensive Development)

Clause 13 of SEPP 33 requires the consent authority, in considering a Development Application for a potentially hazardous or a potentially offensive industry, to take into account:

- (c) *in the case of development for the purpose of a potentially hazardous industry—a preliminary hazard analysis prepared by or on behalf of the applicant, and*

- (d) *any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application)...*

The Modification would not significantly alter the consequences or likelihood of a hazardous event occurring at Wambo as the operational activities on-site would be generally unchanged.

Notwithstanding, environmental management plans and monitoring programmes would be reviewed, and if necessary, revised by WCPL to include the Modification and manage any associated environmental risks.

**State Environmental Planning Policy No. 44
(Koala Habitat Protection)**

SEPP 44 requires the consent authority for any Development Application in certain LGAs (including Singleton) to consider whether land subject to a Development Application is "potential Koala habitat" or "core Koala habitat".

FloraSearch (Appendix E) and Niche (Appendix F) consider the Modification area comprises potential Koala habitat, but does not comprise core Koala habitat.

**State Environmental Planning Policy No. 55
(Remediation of Land)**

SEPP 55 aims to provide a State-wide planning approach to the remediation of contaminated land. Under SEPP 55, planning authorities are required to consider the potential for contamination to adversely affect the suitability of the site for its proposed use.

A consent authority must consider the following under clause 7(1) of SEPP 55:

- (a) *it has considered whether the land is contaminated, and*
- (b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*

- (c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

Further, under clause 7(2), before determining an application for consent to carry out development that would involve a change of use of land, the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned, carried out in accordance with the contaminated land planning guidelines.

Because the Modification is within existing Wambo mining and coal leases, no change of use is proposed and no preliminary land contamination investigation is required.

A2.3 STRATEGIC REGIONAL LAND USE POLICY

As part of the Strategic Regional Land Use Policy, the NSW Government introduced a 'Gateway Process' for the upfront assessment of the impacts of State Significant mining and coal seam gas proposal on Strategic Agricultural Land (NSW Government, 2012c).

The Modification area is wholly contained within existing Wambo mining leases, therefore the 'Gateway Process' does not apply to assessment of the Modification (NSW Government, 2012c).

Strategic Agricultural Land as mapped in the Mining SEPP is described in Section 4.3.1 and presented on Figure 9. An assessment of potential impacts on agricultural land and resources is presented in Section 4.3.2.

An assessment against the provisions of the Aquifer Interference Policy is provided in Section A2.4.

A2.4 AQUIFER INTERFERENCE POLICY

The AIP (NSW Government, 2012a) has been developed by the NSW Government as a component of the NSW Government's Strategic Regional Land Use Policy. The AIP applies State-wide and details water licence and impact assessment requirements.

The AIP has been developed to ensure equitable water sharing between various water users and proper licensing of water taken by aquifer interference activities such that the take is accounted for in the water budget and water sharing arrangements. The AIP also aims to enhance existing regulation, contributing to a comprehensive framework to protect the rights of all water users and the environment in NSW.

The NSW *Water Management Act, 2000* defines an aquifer interference activity as that which involves any of the following:

- *the penetration of an aquifer;*
- *the interference with water in an aquifer;*
- *the obstruction of the flow of water in an aquifer;*
- *the taking of water from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations; and*
- *the disposal of water taken from an aquifer in the course of carrying out mining or any other activity prescribed by the regulations.*

A Groundwater Assessment (HydroSimulations, 2014) has been prepared in consideration of the AIP and the key conclusions are summarised below.

Water Source

The AIP requires all water taken by aquifer interference activities to be accounted for within the extraction limits set by the relevant Water Sharing Plan.

The Water Sharing Plan relevant to Wambo is the *Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009*. Licensing to account for water taken from the coal seams and other hardrock units that comprise the porous rock aquifer is also required at Wambo under the NSW *Water Act, 1912*.

Baseline Groundwater Conditions

Baseline groundwater conditions and the existing observed impacts of the approved Wambo operations on alluvial and porous rock aquifers are presented in Section 2 of HydroSimulations (2014).

Modelling of Potential Impacts

The Groundwater Assessment included predictive modelling of the cumulative groundwater impacts using a three-dimensional numerical model. Detail on the development and calibration of the numerical model is provided in Appendix B.

The numerical model used for the North Wambo Underground Mine Modification (Longwalls 9 and 10) was extended to include the life of approved mining at Wambo and to include dewatering of existing workings in the Whybrow Seam in advance of active mining at the North Wambo Underground Mine.

The potential impacts of the Modification have been assessed by making comparisons between the currently approved and the proposed modified mine plan for the North Wambo Underground Mine.

Licensing Requirements

Details of the current groundwater licences held by WCPL are summarised in Table A2-1. The predicted annual groundwater volumes required to be licensed for the approved operations and for the Modification are summarised in Table A2-2.

Comparison of WCPL's licence entitlements against the predicted annual licensing requirements shows that adequate licences are available to account for the potential take of water associated with the approved North Wambo Underground Mine operations and the Modification (HydroSimulations, 2014).

Post-closure annual licensing requirements are expected to be less than the licensing requirements during operation. Given WCPL currently holds adequate licenses to account for the potential take of water associated with the approved North Wambo Underground Mine operations and the Modification, it is expected WCPL will have adequate licences to account for the potential post-closure take of water.

Notwithstanding, the numerical groundwater model would be refined over progression of the mine life in order to more accurately calculate the post-closure licensing requirements associated with Wambo.

Table A2-1
Groundwater Licence Summary

Licence Number	Description	Facility	Valid to	Extraction Limits
Licences under the <i>Water Management Act, 2000</i> (Alluvial Aquifer)				
WAL 23897 ¹	Well No. 2	Well	Perpetuity	70 ML/year
Licences under the <i>Water Act, 1912</i> (Porous Rock Aquifer)				
20BL166910	Dewatering (Bore No. 1)	Bore	25/10/2018	450 ML/year
20BL167810	Well – Domestic, Stock	Well	Perpetuity	11 ML/year
20BL168017	Dewatering (Bore No. 2)	Bore	21/05/2012 ²	750 ML/year
20BL168643	Dewatering Bore	Bore	7/08/2013 ²	300 ML/year
20BL166438	Well - Stock	Bore	Perpetuity	5 ML/year

Source: HydroSimulations (2014).

1 Assigned to the Lower Wollombi Brook Water Source.

2 WCPL is in consultation with NOW regarding renewal of these licences.

Table A2-2
Groundwater Licensing Requirement Summary

Water Sharing Plan	Management Zone/ Groundwater Source	Predicted Annual Inflow Volumes Requiring Licensing (ML/annum)	
		Currently Approved	Modification
<i>Hunter Unregulated and Alluvial Water Sources Water Sharing Plan 2009</i>	Lower Wollombi Brook	Average 8.1	Average 9.2
<i>Water Act, 1912</i>	Porous Rock	Average 408 Maximum 692	Average 413 Maximum 692

Source: After HydroSimulations (2014).

Minimal Impact Considerations

The AIP establishes minimal impact considerations for highly productive and less productive groundwater. Figure 9 shows the NOW mapping of highly productive groundwater in the vicinity of Wambo, which indicates a highly productive alluvial aquifer exists adjacent to Wollombi Brook.

An assessment of the Modification against the minimal impact considerations in the NSW *Aquifer Interference Policy* (the AIP) was conducted as part of the Groundwater Assessment (HydroSimulations, 2014). The Groundwater Assessment concluded that the Modification is within the 'Level 1' minimal impact considerations outlined in the AIP for highly productive groundwater.

Limited information is available on three privately owned bores in the vicinity of Wambo. Depending on the extraction depth and nature of bores, these bores may experience more than 2 m cumulative drawdown as a result of the approved Wambo operations (HydroSimulations, 2014). No additional privately owned registered bores are predicted to be impacted by the Modification.

WCPL would continue to implement the Surface and Groundwater Response Plan (WCPL, 2010f) in the event a complaint is received in relation to loss of groundwater supply. Therefore, Wambo (including the Modification) is within the 'Level 2' minimal impact considerations outlined in the AIP for less productive groundwater.

Relevant Mitigation and Contingency Measures

Other Groundwater Users

The Surface and Groundwater Response Plan (WCPL, 2010f) includes a process to deal with a complaint received in relation to loss of groundwater supply. WCPL would continue to implement the Surface and Groundwater Response Plan (WCPL, 2010f) for the Modification.

Monitoring and Reporting of Water Make

WCPL would continue to monitor and report groundwater extraction as required under the conditions of its water licences.

The numerical groundwater model would continue to be refined over progression of the mine life at Wambo.