



WAMBO COAL PTY LIMITED

SOUTH WAMBO
UNDERGROUND MINE MODIFICATION
ENVIRONMENTAL ASSESSMENT

ATTACHMENT 5

Cross Reference to Assessment Requirements
Relevant to the EPBC Act

A5 CROSS REFERENCE TO ASSESSMENT REQUIREMENTS RELEVANT TO THE EPBC ACT

References to Sections 1 to 6 in this Attachment are references to the sections of the Main Report of the Environmental Assessment. Internal references within this Attachment are prefixed with “A5”.

A5.1 BACKGROUND

Components of the Modification were referred to the Federal Minister for the Environment under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act) on 19 January 2016 as the Action (EPBC 2016/7636). The Action includes:

- longwall mining from the Woodlands Hill Seam within the additional underground mining area shown as Area 1 on Figure A5-1 located beneath previously approved surface development areas;
- longwall mining from the Woodlands Hill Seam and Arrowfield Seam within the additional underground mining area shown as Area 3 on Figure A5-1;
- development of the infrastructure area extension for the South Wambo Underground Mine (Figure A5-1);
- construction of a new access road (Figure A5-1);
- development of two mine ventilation shafts and associated infrastructure to support underground mining activities within the additional underground mining areas (northern ventilation shaft and southern ventilation shaft) (Figure A5-1); and
- development of surface infrastructure associated with gas management to support underground mining activities within Area 3.

A delegate of the Commonwealth Minister determined on 29 February 2016 that the Action is a ‘controlled action’ for the purposes of the EPBC Act due to potential impacts on the following controlling provisions under Part 3 of Chapter 2 of the EPBC Act:

- listed threatened species and communities (sections 18 and 18A); and
- a water resource, in relation to coal seam gas development and large coal mining developments (sections 24D and 24E).

The delegate of the Commonwealth Minister for the Environment also determined on 29 February 2016 that the proposed action is to be assessed under the assessment bilateral agreement with the New South Wales (NSW) Government.

The Commonwealth Government has accredited NSW’s environmental assessment processes under Schedule 6A and former section 75W of the NSW *Environmental Planning and Assessment Act, 1979* (EP&A Act) in a bilateral agreement between the governments.

The potential impacts on the Commonwealth’s controlling provisions will be assessed under section 75W of the EP&A Act and the NSW Department of Planning and Environment will make a recommendation to the Commonwealth Minister for the Environment on whether the proposal should be approved or not approved under the EPBC Act.

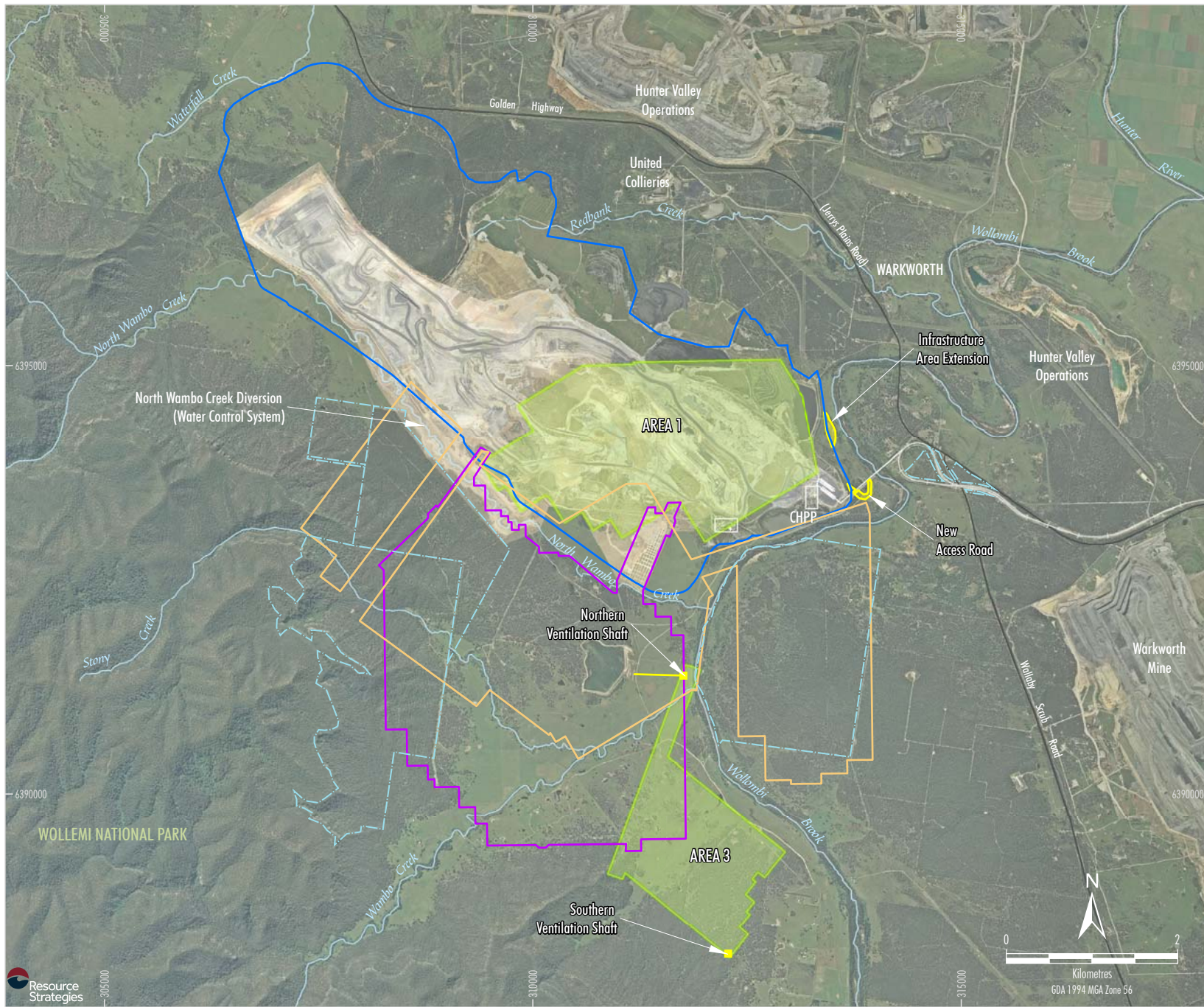
The Commonwealth Department of the Environment’s Environment Reporting Tool identified that 32 threatened species and communities may occur within 5 kilometres of the proposed action. As part of the Referral decision, the Department of the Environment considered that there are likely to be significant impacts to:

- Central Hunter Valley Eucalypt Forest and Woodland Ecological Community - critically endangered.
- Regent Honeyeater (*Anthochaera phrygia*) - critically endangered.

A5.2 ASSESSMENT REQUIREMENTS

The NSW Department of Planning and Environment issued revised Secretary’s Environmental Assessment Requirements on 3 March 2016 that incorporated the Commonwealth Department of the Environment’s environmental assessment requirements.

A summary of the assessment requirements relevant to the EPBC Act is provided in Table A5-1, as well as the relevant section of the Environmental Assessment where the requirements are addressed.



LEGEND

- Outline of Surface Development Approved by EPBC 2003/1138
- Outline of Underground Development Approved by EPBC 2003/1138
- Outline of Previous Underground Development (Prior to 2003)
- Remnant Woodland Enhancement Program (RWEP) Area
- Proposed Action (EPBC 2016/7636)
- Additional Underground Mining Area
- Surface Infrastructure

Source: Department of Lands (July 2009); WCPL (2015); WCPL Orthophoto (Apr-Oct 2013)

Peabody
ENERGY

WAMBO COAL MINE
Proposed Action (EPBC 2016/7636)

Figure A5-1

**Table A5-1
Reference Summary of Assessment Requirements Relevant to the EPBC Act**

Assessment Requirement	Environmental Assessment Reference
General Requirements	
the precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on matters of national environmental significance (MNES);	Section A5.1 and Section 3.
how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES;	Sections 3, 4.8 and 4.9.
an assessment of the relevant impacts of the action on (i) threatened species and communities and (ii) water resources; including:	
- a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long term relevant impacts;	Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E.
- a statement whether any relevant impacts are likely to be known, unpredictable or irreversible;	Appendices B to E.
- analysis of the significance of the relevant impacts;	Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E.
- any technical data and other information used or needed to make a detailed assessment of the relevant impacts; and	Appendices B to E.
- a comparative description of the impacts of alternatives, if any, on the threatened species and communities.	As described in Section 6.2.1, the locations of the proposed surface development areas were determined by the infrastructure required to safely and efficiently service the South Wambo Underground Mine, the space available for this infrastructure and a number of other design parameters, including geotechnical and environmental factors. There is not considered to be any feasible alternatives. Surface disturbance for pre-mining gas drainage and goaf gas drainage would be required for the South Wambo Underground Mine to reduce the gas content in the coal seams to levels suitable and safe for longwall operations. However, Wambo Coal Pty Limited (WCPL) would implement the gas management infrastructure siting process outlined in Section 3.2, which would involve consideration being given to relocating the works so as to avoid or minimise direct impacts on threatened species and communities.
Information on proposed avoidance and mitigation measures to manage the relevant impacts of the action including:	
- a description of the proposed avoidance and mitigation measures to deal with the relevant impacts of the action;	Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E.
- assessment of the expected or predicted effectiveness of the mitigation measures;	Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E.
- the cost of the mitigation measures;	The costs of the mitigation measures would be borne by WCPL and have been included as a component of the operating costs for the Modification.
- a description of the outcomes that the avoidance and mitigation measures will achieve; and	Sections 4.4, 4.5, 4.8 and 4.9.
- a description of the offsets proposed to address the residual adverse significant impacts and how these offsets will be established.	Sections 4.8 and 6.1.

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

Assessment Requirement	Environmental Assessment Reference
Key Issues - Biodiversity	
<p>The EIS must address the following issues in relation to Biodiversity including separate:</p> <ul style="list-style-type: none"> - identification of <u>each</u> EPBC Act listed threatened species and community likely to be significantly impacted by the development. Provide evidence why other EPBC Act listed threatened species and communities likely to be located in the project area or in the vicinity will not be significantly impacted in accordance with the <i>Matters of National Environmental Significance - Significant Impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999</i> (Significant Impact Guidelines). 	<p>Threatened flora species and ecological communities are considered in accordance with the Significant Impact Guidelines in Section 7.5 of the Flora Assessment (Appendix D).</p> <p>Threatened fauna species are considered in accordance with the Significant Impact Guidelines in Appendix D of the Fauna Assessment (Appendix E).</p>
<p>For <u>each</u> of the relevant EPBC Act listed threatened species and communities likely to be significantly impacted by the development the EIS must provide a separate:</p> <ul style="list-style-type: none"> - description of the habitat and habits (including identification and mapping of suitable breeding habitat, suitable foraging habitat, important populations and habitat critical for survival), with consideration of, and reference to, any relevant Commonwealth guidelines and policy statements including listing advice, conservation advice and recovery plans, threat abatement plans and wildlife conservation plans; 	<p>A description of the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community extent and habitat is provided in Section 7.5.2 of the Flora Assessment (Appendix D).</p> <p>A description of Regent Honeyeater habitat is provided in Appendix C of the Fauna Assessment (Appendix E). Only potential foraging habitat is present in the Wambo area (winter flowering eucalypt species).</p> <p>Assessments have considered relevant listing and conservation advice.</p> <p>No Recovery Plans or recovery actions exist specifically for the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community in the Wambo area.</p> <p>Consideration of the Regent Honeyeater Recovery Plan is provided in Appendix D of the Fauna Assessment (Appendix E).</p>
<ul style="list-style-type: none"> - details of the scope, timing and methodology for studies or surveys used and how they are consistent with (or justification for divergence from) published Australian Government guidelines and policy statements; and 	<p>The Modification area has been surveyed extensively as part of previous flora and fauna surveys conducted for the Wambo Coal Mine. Details of the methodologies of the surveys for the Modification are provided in Section 3 of the Flora Assessment (Appendix D) and Section 2 of the Fauna Assessment (Appendix E).</p> <p>The fauna field surveys for the Modification were informed by the <i>Survey Guidelines for Australia's threatened birds</i> (Department of Environment, Water, Heritage and the Arts, 2010).</p> <p>The Regent Honeyeater was not recorded during the fauna field surveys for the Modification or during previous assessments and/or ongoing monitoring at the Wambo Coal Mine. The closest record of this species is approximately 5 km east of the Modification area. Notwithstanding, the assessments in the Fauna Assessment conservatively assumed the Regent Honeyeater was present.</p>
<ul style="list-style-type: none"> - description of the impacts of the action having regard to the full national extent of the species or community's range. 	<p>An assessment of impacts on the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community is provided in Section 7.5 of the Flora Assessment (Appendix D).</p> <p>An assessment of impacts on the Regent Honeyeater is provided in Appendices C and D of the Fauna Assessment (Appendix E).</p>

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

Assessment Requirement	Environmental Assessment Reference
<p>For each of the relevant EPBC Act listed threatened species and communities likely to be significantly impacted by the development the EIS must provide:</p> <ul style="list-style-type: none"> - details of how the current published NSW Framework for Biodiversity Assessment (FBA) has been applied in accordance with the objects of the EPBC Act to offset significant residual adverse impacts; - identification of significant residual adverse impacts likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account; and - details of the offset package to compensate for significant residual impacts including details of the credit profiles required to offset the development in accordance with the FBA and/or mapping and descriptions of the extent and condition of the relevant habitat and/or threatened communities occurring on proposed offset sites. 	<p>The NSW Framework for Biodiversity Assessment applies to State Significant Development and does not apply to the Modification under section 75W of the EP&A Act.</p> <p>Sections 4.8 and 4.9 and Appendices D and E.</p> <p>Section 4.8 and Appendix D provide detail of the offset package. The NSW Framework for Biodiversity Assessment applies to State Significant Development and does not apply to the Modification under section 75W of the EP&A Act.</p>
<p>Any significant residual impacts not addressed by the FBA may need to be addressed in accordance with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offset Policy.</p>	<p>The impacts on the Central Hunter Valley Eucalypt Forest and Woodland Ecological Community and the Regent Honeyeater are not significant (Appendices D and E). Notwithstanding, residual impacts associated with the Action have been offset in accordance with the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offset Policy as described in Section 4.8 and Appendix D.</p>
<p>Key Issues - Water Resources</p>	
<p>The EIS should provide a description of the location, extent and ecological characteristics and values of the identified water resources potentially affected by the project.</p>	<p>Sections 4.4, 4.5, 4.8 and 4.9 and Appendices B to E.</p>
<p>The assessment of impacts should include information on:</p> <ul style="list-style-type: none"> - any substantial and measurable changes to the hydrological regime of the water resource, for example a substantial change to the volume, timing, duration or frequency of ground and surface water flows; - the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependent upon the water resource being seriously affected; and - substantial and measurable change in the water quality and quantity of the water resource – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland; or water temperature that may adversely impact on biodiversity, ecological integrity, social amenity or human health. 	<p>Section 4.4 and Appendix B.</p> <p>No substantial changes to the hydrological regime of surface water flows or highly productive groundwater are predicted.</p> <p>No substantial changes to the hydrological regime of surface water flows or highly productive groundwater are predicted.</p> <p>No native species are reliant on less productive groundwater associated with the Permian coal measures.</p> <p>Sections 4.4 and 4.5 and Appendices B and C.</p> <p>No substantial or measurable changes are predicted that may adversely impact on biodiversity, ecological integrity, social amenity or human health.</p>

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

Assessment Requirement	Environmental Assessment Reference
<p>The EIS must provide adequate information to allow the project to be reviewed by the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, as outlined in the <i>Information Guidelines for Independent Expert Scientific Committee advice on coal seam gas and large coal mining development proposals (2015)</i>.</p>	<p>WCPL considers the Groundwater Assessment (Appendix B) and the Surface Water Assessment (Appendix C) provide an adequate evidence-based determination of potential impacts to water resources and water dependent assets. These conclusions are supported by modelling, including conceptual and numerical modelling.</p> <p>The proposed mitigation measures to manage risks to water resources are outlined in Sections 4.4 and 4.5 and Appendices B and C.</p>
<p>Environmental Record of Person Proposing to Take the Action</p>	
<p>The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the person proposing to take the action; and for an action for which a person has applied for a permit, the person making the application.</p>	<p>WCPL has a strong record of compliance with its environmental obligations for its underground mining operations under Development Consent DA 305-7-2003 (as modified). WCPL has established and is committed to continuing open and constructive dialogue with the local community and stakeholders regarding environmental management as part of their operations.</p> <p>The Annual Environmental Management Reports are available on the Wambo Coal Mine website (http://www.peabodyenergy.com/content/422/australia-mining/new-south-wales/wambo-mine/approvals-plans-and-reports-wambo-mine).</p> <p>The environmental monitoring program results over recent years have shown that WCPL's management of underground operations at the Wambo Coal Mine provides effective management of potential impacts from the mine's operations and achieves compliance with the subsidence impact performance measures in the Development Consent (DA 305-7-2003).</p> <p>On 1 August 2014, WCPL was convicted in the Singleton Local Court for an offensive odour offence under section 129(1) of the NSW <i>Protection of the Environment Operations Act, 1997</i> for a blast fume incident associated with the open cut mining operations which occurred on 24 July 2012. WCPL was ordered to pay a fine of \$13,000 and the NSW Environment Protection Authority's costs in the amount of \$24,000.</p> <p>WCPL also pleaded guilty to an offensive odour offence under section 129(1) of the <i>Protection of the Environment Operations Act, 1997</i> for a blast fume incident associated with the open cut mining operations which occurred on 14 May 2014. The proceedings in respect of this offence were brought by the NSW Environment Protection Authority in the Land and Environment Court of NSW. A sentencing hearing was held on 17 December 2015, and the Court has reserved its judgment in respect of the matter.</p> <p>No approval under environmental protection legislation has been revoked or suspended in the 5 years immediately prior to this application being made.</p>

Table A5-1 (Continued)
Reference Summary of Assessment Requirements Relevant to the EPBC Act

Assessment Requirement	Environmental Assessment Reference
<p>If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.</p>	<p>The Action would be undertaken in accordance with the Wambo Coal Mine environmental management system (Section 2.14) and Peabody Energy Australia Pty Limited's values as articulated in its Mission Statement:</p> <ul style="list-style-type: none"> • Safety: We commit to safety and health as a way of life. • Customer Focus: We provide customers with quality products and excellent service. • Leadership: We have the courage to lead, and do so through inspiration, innovation, collaboration and execution. • People: We offer an inclusive work environment and engage, recognize and develop employees. • Excellence: We are accountable for our own success. We operate cost-competitive mines by applying continuous improvement and technology-driven solutions. • Integrity: We act in an honest and ethical manner. • Sustainability: We take responsibility for the environment, benefit our communities and restore the land for generations that follow.