

## **Conditional Gateway Certificate Maxwell Coal Project**

Part 4AA, Division 4 of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

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Pursuant to clause 17H of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007, we determine the application made by Malabar Coal Ltd by issuing this certificate.

We certify that in the opinion of the Mining and Petroleum Gateway Panel, with regards to the relevant criteria in clause 17H(4) of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007, the proposed development described in Schedule 1:

- does meet the following relevant BSAL criteria:
  - 17H(4)(a) (v).
- does not meet the following relevant BSAL criteria:
  - 17H(4)(a) (i),
  - 17H(4)(a) (ii),
  - 17H(4)(a) (iii),
  - 17H(4)(a) (iv), and
  - 17H(4)(a) (vi).
- does not include any CIC land in the Application area.

The reasons for forming the opinion on each of the relevant criteria, together with recommendations of the Gateway Panel, are contained in Schedule 2.

Brett Whelan  
**Chairperson**

George Gates  
**Member of the Gateway Panel**

Geoff Sharrock  
**Member of the Gateway Panel**

Date certificate issued: 20<sup>th</sup> December 2018.

**This certificate will remain current for 5 years from the date of issue.**

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### **SCHEDULE 1**

#### **Site:**

The site is located approximately 16 kilometres east-southeast of the township of Denman and 20km south-southwest of the township of Muswellbrook within the Muswellbrook Local Government Area. The project is located on land subject to the Upper Hunter Strategic Regional Land Use Plan.

#### **Development description:**

The Maxwell Coal Project proposes to undertake bord and pillar and longwall underground mining and other associated mining activities within EL5460 while utilising CL229, CL395 and ML1531. The Project will produce approximately 150 million tonnes (Mt) of run-of-mine (ROM) coal over the mine life of approximately 26 years.

#### **Applicant:**

Malabar Coal Ltd.

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## SCHEDULE 2

Relevant criteria	Consideration	Recommendations
17H4(a)(i), (ii), (iii), (vi)	<p>Uncertainty in the subsidence model makes assessment of impact on BSAL difficult.</p> <p>Potentially significant impacts on BSAL include changes to soil water drainage, surface and groundwater processes, soil bulk density and increased surface water ponding and potential inundation with associated soil physical and chemical degradation issues.</p>	<ol style="list-style-type: none"> <li>1. Incorporate all available geotechnical, geological and geophysical information into a comprehensive subsidence model.</li> <li>2. Provide a detailed assessment of changes to surface water movement and potential subsoil inundation as a result of subsidence.</li> <li>3. Provide a comprehensive Extraction Plan including subsidence and rehabilitation management plans</li> <li>4. Complete BSAL verification in the entire GCAA to determine all possible areas of BSAL &gt;20ha..</li> </ol>
17H4(a)(iv)	<p>The Gateway Panel recognises the limitations of the groundwater modelling work to date but nevertheless finds it adequate for a Gateway assessment. An upgraded model is required for an EIS</p> <p>More work is also required to establish baseline groundwater conditions. In particular the following is inadequately defined:</p> <ul style="list-style-type: none"> <li>• Potential effects of geological faulting, basalt flows and fracturing on groundwater movement;</li> <li>• The interaction between surface and groundwater near the Hunter River and Saddlers Creek;</li> <li>• The water transmitting capacity of the weathered zone beneath the Hunter River alluvium;</li> <li>• Hydraulic parameters of model layers.</li> <li>• Groundwater dependent ecosystems.</li> </ul>	<ol style="list-style-type: none"> <li>1. Using a calibrated transient 3D model re-quantify the impacts on nearby water assets (bores/wells and GDEs).  This updated modelling and reporting should: <ul style="list-style-type: none"> <li>• Capture the hydrogeological complexity of the site;</li> <li>• Use temporal input data;</li> <li>• Have distributed input parameters;</li> <li>• Quantify any uncertainties in the groundwater /surface water connection;</li> <li>• Undertake both sensitivity and uncertainty analysis and have the model independently peer reviewed.</li> </ul> </li> <li>2. Undertake more studies to establish baseline groundwater conditions.</li> <li>3. Monitor and report actual mine water inflows and develop a strategy for complying with Water Sharing Plan rules.</li> <li>4. Complete studies on groundwater dependent ecosystems.</li> </ol>
17H4(a)(vi)	Extent of verified BSAL has not been finalised.	<ol style="list-style-type: none"> <li>1. Reassess validity of soil sampling scheme density within the area of the 2018 survey and reassess soil sampling and analysis in Soil Unit 2.</li> <li>2. Complete BSAL verification in the entire GCAA to determine all possible areas of BSAL &gt;20ha.</li> </ol>

Note: Further information on the Gateway Panel's reasoning in relation to the relevant criteria is contained in the Gateway Panel Report available at: [www.mpgp.nsw.gov.au](http://www.mpgp.nsw.gov.au)