Conditional Gateway Certificate
Caroona Coal Project

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

Pursuant to clause 17H of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007, we determine the application made by Coal Mines Australia Pty 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 not meet the following relevant criteria:
  - 17H(4)(a) (i),
  - 17H(4)(a) (ii),
  - 17H(4)(a) (iii),
  - 17H(4)(a) (iv),
  - 17H(4)(a) (v), and
  - 17H(4)(a) (vi).

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	George Gates	Ian Lavering
Chairperson	**Member of the Gateway Panel**	**Member of the Gateway Panel**

Date certificate issued: 7th July 2014

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

SCHEDULE 1

Site:
The site is located about 14 kilometres northwest of the township of Quirindi within the Gunnedah and Liverpool Plains Local Government Areas. The project is located on land subject to the New England and North West Strategic Regional Land Use Plan.

Development description:
The Caroona Coal Project proposes to undertake longwall and other associated mining activities on Doona Ridge and on Nicholas Ridge with production of approximately 260 million tonnes (Mt) of run-of-mine (ROM) coal over the mine life of approximately 30 years.

Applicant:
Coal Mines Australia Pty Ltd, a subsidiary of BHP Billiton.

SCHEDULE 2

Relevant criteria	Consideration	Recommendations
17H4(a)(i), (ii), (iii) (v)	Uncertainty in the subsidence model makes impact assessment difficult. Potentially significant impacts on BSAL include changes to soil water drainage, increased surface water ponding and potential inundation of subsoil with associated soil physical and chemical degradation issues.	1. Incorporate all geotechnical, geological and geophysical information into a comprehensive subsidence model. 2. Provide a detailed assessment of changes to runoff and potential subsoil inundation as a result of subsidence. 3. Provide a Subsidence Management Plan – a general mine plan and specific plan for each landholder including detailed mapping of present local topography. 4. Verify the location of all BSAL within the PAA.
17H4(a)(iv) (v)	Significant impacts to groundwater levels and impact on agricultural land use. Specific issues are: • Improvements required in groundwater modelling	1. Develop a more complex transient 3D numerical model for the EIS stage of the Development Application which includes improved time variant input data, more details on recharge, geological imperfections (dykes, sills & faults), fractures from subsidence, and a sensitivity/ uncertainty analysis. 2. Using the transient 3D groundwater flow model re-calculate the volumes of water to be taken from each water source and the impacts on nearby water assets. 3. The EIS should Include information on: • A strategy for accounting for any water taken beyond the life of the operation; • Quantification of any uncertainties in the groundwater modelling; • A plan for monitoring actual water take and how any changes from the predictions will be accounted for with water licences; and • A plan for mitigating impacts with trigger levels for action.
	• Groundwater data as provided is insufficient	4. Undertake more studies to establish baseline groundwater conditions. Including: • Completing bore census work; • water table monitoring in areas potentially affected by dryland salinity • Determining the likely effects of geological faulting on groundwater flow; • Determining the interaction between

	• Strategy for complying with Water Sharing Plan rules requires greater detail. • Potential for Groundwater Dependent Ecosystems has not been assessed • Potential for increased saline water inflow to aquifers and connected river systems requires better characterisation	surface water and groundwater between Caroona and Breeza; • Establishing the hydrochemistry of the groundwater in each modelled layer; and • Determine the age of groundwater in each modelled layer. 5. Undertake more detailed work on the height of fracturing above longwalls. 6. Ensure that sufficient water level and water quality monitoring is undertaken in all major rock units affected by the impacts of mining. 7. Provide a strategy for complying with the rules of the Water Sharing Plans.In particular the implication of reduced water access during times of drought 8. Supply a plan for monitoring actual water take and how any changes from the predictions will be accounted for with water licences and remediation. 9. Undertake a detailed assessment including field studies, on the potential impacts of mining on groundwater dependent ecosystems and report on mitigating options as necessary. 10. Undertake studies to better characterise the hydrochemistry of each model layer and predict changes in water quality in both the alluvial aquifers and surface streams, if any.
17H4(a)(vi)	Extent of verified BSAL has not been finalised.	11. Reassess soil drainage and soil pH classification for BSAL verification. 12. Undertake BSAL verification in the entire PAA to determine all possible areas of BSAL <20ha. 13. Identify the extent of BSAL outside the PAA which is contiguous with verified BSAL inside the PAA.

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