

Mining and Petroleum Gateway Panel Conditional Gateway Certificate Cadia Continued Operations Project

Division 4 of State Environmental Planning Policy (Resources and Energy) 2021

Pursuant to section 2.31 of the *State Environmental Planning Policy (Resources and Energy) 2021*, we determine the application made by Cadia Holdings Pty Limited by issuing this certificate.

We certify that in the opinion of the Mining and Petroleum Gateway Panel (**Gateway Panel**), with regard to the relevant criteria in section 2.31 of *State Environmental Planning Policy* (*Resources and Energy*) 2021, the proposed development described in Schedule 1:

- does meet the following relevant criteria:
 - section 2.31(4)(a)(v)
 - section 2.31(4)(b)(i)
 - o section 2.31(4)(b)(ii)
 - section 2.31(4)(b)(iii)
 - section 2.31(4)(b)(iv)
 - section 2.31(4)(b)(v)
 - section 2.31(4)(b)(vi)
- does not meet the following relevant criteria:
 - section 2.31(4)(a)(i)
 - section 2.31(4)(a)(ii)
 - o section 2.31(4)(a)(iii)
 - section 2.31(4)(a)(iv)
 - section 2.31(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.

Neal Menzies

Member of the Gateway
Panel (Chair)

Clinton Foster PSM

Member of the Gateway

Panel

Hugh Middlemis

Member of the Gateway

Panel

Date certificate issued: 25 October 2024

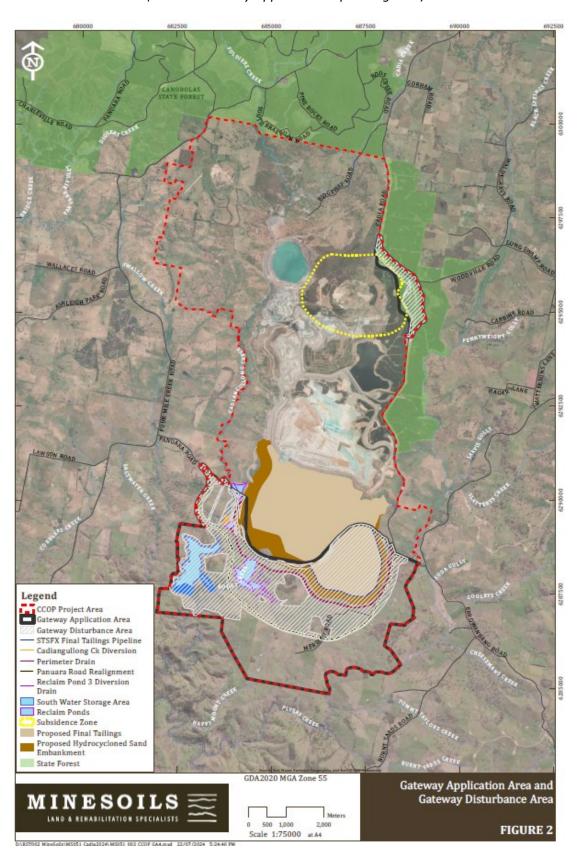
This certificate will remain current for 5 years after the date of issue.

SCHEDULE 1

Site:

The Gateway Certificate Application area is located approximately 25 kilometres south-south-west of Orange, in the Central West region of NSW and is associated with the existing Cadia mine. The site consists of parts of the Cadia Continued Operations Project (CCOP) area which represents a broad envelope or perimeter of the site, where new mining leases are required for the activities proposed. Areas that will be subject to direct ground disturbance by the CCOP within the Gateway Application area are referred to as the Gateway Disturbance Area and cover 1,253 ha. These areas are shown on Figure 1.

Figure 1 – Gateway Certificate Application Area (Source: Gateway Application Report: Figure 1)



Development description:

The CCOP is proposed to involve:

- Continuation of operations beyond 2031 (for a period of 25 years from the date of approval, nominally to 2050) using existing and approved but not constructed infrastructure and supporting site services.
- Continuation of and extension to underground mining within the Cadia East and Ridgeway mining areas, and associated changes in subsidence surface expression.
- The continued emplacement of tailings from ore processing over the life of the continued operations within existing approved storage facilities and an extension of the existing Southern Tailings Storage Facility (STSF)
- Development of an additional water storage on Cadiangullong Creek (known as the South Water Storage) to provide improved security of water supply.
- Realignment of portions of Panuara Road and Cadia Road to maintain public safety and account for the above project features.
- Changes to site infrastructure and facilities to enable ongoing mining operations.

A new development consent will be sought for CCOP, which will replace the existing Project Approval (PA 06_0295) and provide for a new and modern consent to govern future operations at Cadia.

Applicant:

Cadia Holdings Pty Limited.

SCHEDULE 2

Section 2.31(4) The relevant criteria are as follows -

• in relation to biophysical strategic agricultural land – that the proposed development will not significantly reduce the agricultural productivity of any biophysical strategic agricultural land, based on a consideration of the following:

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Relevant criteria	Opinion and reasons	Recommendations
(i) any impacts on the land through surface area disturbance and subsidence	 The Gateway Panel finds that 378 ha of verified BSAL land will be impacted: the majority of this area is agricultural land that will be buried under the Southern Tailings Storage Facility extension (STSFx). In this area, an Agricultural Impact Risk Ranking consequence value of 1 (Severe and/or permanent damage - Irreversible impacts) and probability of A (Almost certain) is appropriate. a smaller area of BSAL land currently used for forestry is located to the northeast of the mine and may be impacted by subsidence. There will be no direct ground disturbance in this area, and the impacts to existing forestry practices are expected to be negligible; an Agricultural Impact Risk Ranking consequence value of 4 (Minor damage and/or short-term impact to agricultural resources or industries - Can be managed as part of routine operations) and probability of B (Likely) is appropriate. 	 The Gateway Panel recommends that the EIS: gives consideration to the long-term monitoring and maintenance of the STSFx with respect to the potential for settling/subsidence to influence water flows, potentially causing water to concentrate in defined flow paths and reducing the overall stability of the landform; establishes a baseline to allow any subsidence in the northeastern area over the life of the Project to be determined; and considers opportunities for additional avoidance and reductions in impacts to BSAL.
(ii) any impacts on soil fertility, effective rooting depth or soil drainage	The Gateway Panel finds that construction of the STSFx will result in burial of the existing agricultural land surface. A new land surface consisting of tailings material will have altered soil fertility and soil drainage. Effective rooting depth cannot be estimated on the basis of existing information. It is anticipated that land in the tailings storage area (STSFx tailings area and	The Gateway Panel recommends that the EIS includes a management plan to ensure that the land proposed to be temporarily disturbed by the Application is rehabilitated to the highest practically achievable Land and Soil Capability (LSC) class appropriate for agriculture at the end of the Project.

	tailings embankment) will be permanently removed from agricultural land use.	
(iii) increases in land surface micro-relief, soil salinity, rock outcrop, slope and surface rockiness or significant changes to soil pH	The Gateway Panel finds that construction of the STSFx will result in the existing land surface being buried and a new surface consisting of tailings material being created. This new surface is likely to have reduced micro-relief and reduced surface rockiness without rock outcrops. Levels of soil salinity and soil pH cannot be estimated on the basis of existing information.	The Gateway Panel recommends that the EIS addresses the matters identified in section 2.31(4)(a)(i) and (ii).
(iv) any impacts on highly productive groundwater (within the meaning of the Aquifer Interference Policy)	The Gateway Panel finds that the Gateway Disturbance Area directly overlies mapped areas of the Orange Basalt Groundwater Source, which is classified as a highly productive aquifer. Although there is evidence to indicate that the Orange Basalt may be discontinuous in these areas, and may potentially not meet the high yield criterion (>5 L/s), the Panel notes advice from DCCEEW-Water Group that the highly productive categorisation applies to a whole groundwater resource as defined in a water sharing plan, not to the specific groundwater conditions that may be able to be mapped at a particular location. The Panel finds that the Gateway Report does not provide an assessment of potential groundwater impacts consistent with AIP requirements, as required by the SEPP, although it reports that such an assessment is in progress.	 The Gateway Panel recommends that the EIS: demonstrates an improved understanding of surface water and groundwater resources, surface water-groundwater interactions and groundwater dependent ecosystems (GDEs), including: relevant baseline information on water quality, hydrological connectivity and flow regimes; the results of site-specific investigations to confirm the presence and groundwater-dependence of aquatic, terrestrial and/or subterranean GDEs in and near the Project area; describes proposed Project activities in more detail so that potential impact pathways to water resources can be determined with greater certainty; includes an impact pathway diagram to refine and communicate understanding of how and where the Project may impact water resources;

- identifies and quantifies potential surface and groundwater impacts, including:
 - the likely extent and magnitude of groundwater level and water quality changes from underground mining, tailings deposition and water management infrastructure, including construction and operation of the STSFx, water storage and creek diversion;
 - changes to hydraulic connection between aquifers, especially in the subsidence zones;
 - additional water take requirements during and post mining;
 - impacts to GDEs, landholder bores and licensed water users;
 - demonstrates the ability to obtain additional water entitlements where required;
 - assesses the Project against the minimal impact considerations of the AIP for highly productive aquifers including drawdown and water quality impacts to high priority GDEs, high priority culturally significant sites and water supply works;
 - sets out proposed impact avoidance and mitigation measures
 - includes a detailed description of a monitoring program to assess the effectiveness of the avoidance and

		mitigation strategies and detect any residual impacts; and includes a cumulative impact assessment that explicitly considers the existing Cadia Valley Operations project and other relevant land and water uses in and near the Project area.
(v) any fragmentation of agricultural land uses	The Gateway Panel finds that the Application will not result in the fragmentation of agricultural land uses as there will be a permanent 378 ha reduction in the area of verified/assumed BSAL land bounding the existing mine. The Application therefore meets the criterion and no recommendations have been made.	Not applicable.
(vi) any reduction in the area of biophysical strategic agricultural land	The Gateway Panel finds that the Application will result in a permanent 378 ha reduction in the area of verified/assumed BSAL land.	The Gateway Panel recommends that the EIS addresses the matters identified in section 2.31(4)(a)(i), (ii) and (iv).

Section 2.31(4) The relevant criteria are as follows -

(b) in relation to critical industry cluster land – that the proposed development will not have a significant impact on the relevant critical industry based on a consideration of the following:

Relevant criteria	Opinion and reasons	Recommendations
(i) any impacts on the land through surface area disturbance and subsidence	The Gateway Application Report states that there is no Critical Industry Cluster land within the Gateway Application Area. The Gateway Panel accepts this finding and therefore finds that the proposed development will not have a significant impact on any critical industry.	Not applicable.
(ii) reduced access to, or impacts on, water resources and agricultural resources	As above.	Not applicable.

(iii) reduced access to support services and infrastructure	As above.	Not applicable.
(iv) reduced access to transport routes	As above.	Not applicable.
(v) the loss of scenic and landscape values	As above.	Not applicable.

Section 2.31(5) In forming an opinion as to whether a proposed development meets the relevant criteria, the Gateway Panel is to have regard to:

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Consideration	Opinion and reasons	Recommendations
(a) the duration of any impact referred to in subsection (4)	 The Gateway Panel finds that the impacts on BSAL: will be permanent and severe in the STSFx area to the south of the existing mine; and 	The Gateway Panel recommends that the EIS addresses the matters identified in section 2.31(4)(a)(i), (ii) and (iv).
	 will be permanent in the area to the north-east of the existing mine, and while they are unlikely to substantially alter the forestry production system, they will very likely permanently impact the highly productive Orange Basalt Groundwater Source, as mapped by the former NSW Department of Primary Industries (Office of Water) in Groundwater Productivity in NSW – 2013. 	
(b) any proposed avoidance, mitigation, offset or rehabilitation measures in respect of any such impac	No mitigation measures are proposed for the STSFx area. In other areas soil stripping and reuse will be implemented to mitigate impacts.	 The Gateway Panel recommends that the EIS: includes a management plan to ensure that the land proposed to be temporarily disturbed by the Application is rehabilitated to a Land and Soil Capability (LSC) class appropriate for agriculture at the end of the Project. includes management/mitigation plans for groundwater and connected surface water

	systems consistent with Aquifer
	Interference Policy requirements.

Note: Further information on the Gateway Panel's reasoning in relation to the relevant criteria is contained in the Conditional Gateway Certificate Report available at: https://www.ipcn.nsw.gov.au/cases/2024/08/cadia-continued-operations-project