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MINING, EXPLORATION & GEOSCIENCE ADVICE RESPONSE

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Dear Philip

Project: Cowal Gold Operations – Underground Project Stage: Advice on Environmental Impact Statement and provide Resource and Economic Assessment Development Application: SSD 10367

I refer to your recent correspondence inviting the Department of Regional NSW – Mining, Exploration & Geoscience (MEG) to provide comments on the Cowal Gold Operations – Underground Project (Cowal Gold Project or the Proposal) submitted by Evolution Mining Pty Ltd (Evolution or the Proponent).

The relevant units internal to MEG have been consulted in generating this advice. The Department of Planning, Industry and Environment – Energy, Resources & Compliance Division and the Proponent should be aware that matters concerning subsidence, subsidence management, mine operator, safety, rehabilitation and environmental impacts of final landform design are not assessed by MEG and advice should be sought from the Resources Regulator.

Advice overview

MEG has determined that Proposal will:

- establish an underground mine extension to support continued operations at Cowal Gold until 2040.
- extract up to 1.8 million ounces (Moz) of gold over the life of the Proposal.
- provide 230 full-time equivalent (FTE) jobs during operation and 160 FTE construction jobs.
- without the Proposal the existing Cowal Gold mine would cease operation in 2031.
- ensure an appropriate return to the NSW Government including;
 - \$124 million royalties (current dollars)
 - \$3.9 billion total revenue (current dollars)
 - In a typical year at full production the NSW Government would receive around \$8 to \$9 million in royalties from the Project.
- be an efficient use of resources.

Resource and Economic Assessment

The existing Cowal Gold Operations (CGO) open cut gold mine is located 35 kilometres from West Wyalong and has been operating since 2005. The Cowal Gold Project is a proposed underground extension with an expected operating life of 15 years.

The Cowal Gold Project resource is situated within the Ordovician Lake Cowal Volcanic Complex (LCVC), east of the Gilmore Fault Zone within the metallogenic province of the Lachlan Orogen. The LCVC is an assemblage of massive and stratified, nonwelded pyroclastic debris, overlying a partly brecciated lava sequence and volcanic conglomerate interbedded with siltstone and mudstone.

Within the LCVC are diorite and gabbro intrusions, one of which is intersected by the CGO open-cut pit. Within the ore body there are several north-south oriented, near-vertically dipping faults and fractured dykes.

Overlying the Ordovician host rock is a Tertiary age laterite, which averages approximately 20 metres and varies in thickness across the CGO site, from approximately 15 metres to 55 metres. Quaternary age sediments of predominantly lacustrine clay characteristically cover the Tertiary laterite. The depth of sediments across the CGO site and surrounds ranges from approximately 14 metres to 55 metres.

Gold mineralisation in the Proposal area is concentrated in a north-south orientated corridor hosted by second and third order structures marginal to and parallel to the Gilmore Suture. The gold deposits are hosted by a shallowing-upwards sequence of semi-conformable sedimentary, volcaniclastic, and volcanic rocks of trachydacitic and trachyandesitic composition that have been intruded by a diorite sill, andesite dome, and various dykes. The sequence strikes northeast– southwest and dips moderately 30° to 40° to the northwest.

In view of the constraints outlined in the Proponent's EIS and based on the information currently available, MEG considers the Cowal Gold Project satisfies section 3A objects of the *Mining Act 1992* and the requirements of clause 15 of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. The Proposal represents an efficient development and utilisation of minerals resources which will foster significant social and economic benefits.

The proposed mine design and site layout have evolved during the study stages of the Proposal but should achieve satisfactory resource extraction. The proposed mine site infrastructure is not expected to significantly sterilise any resources. MEG is satisfied that, should the operational outcomes be achieved, the proposed mine design and mining method submissions adequately recover resources and will provide an appropriate return to the state.

The resource utilisation, recovery and economic benefits assessment undertaken by MEG is addressed in Attachment A.

The requirement for a mining authorisation and royalty liability

Gold and Silver are prescribed minerals under the *Mining Act 1992*. The Proponent is required to hold appropriate mining title(s) allowing for mineral extraction, such as a mining lease, from MEG to undertake mining.

MEG notes that the Proposal, as it currently stands, is located within the existing operations area of Mining Lease 1535 (Act 1992) and Mining Lease 1791 (Act 1992). Based on current information the proponent holds the appropriate titles for mining operations as required for mineral extraction satisfying the requirements of sections 5 and 73 of the Act. Proposal operations are allowable within existing surface exceptions and/or depth restrictions.

For ancillary mining activities carried out in connection with and in the immediate vicinity of a mining lease (in respect of a mineral), a proponent is required to hold a Mining Lease for ancillary mining activities or an 'off title' designated ancillary mining activity as defined by clause 7 of the Mining Regulation 2016 (the Regulation). This applies where the activities move beyond the scope of section 73 (Rights under mining lease) and/or section 81 (Surface activities in relation to subsurface leases) of the Act.

The holder of a mining lease is also liable to pay royalty for both publicly and privately-owned minerals (refer to section 282-285 of the Act).

Application of section 65 of the *Mining Act* 1992 – development consents under the *Environmental Planning and Assessment Act* 1979

A development application under the *Environmental Planning and Assessment Act 1979* must be approved before a mining lease can be granted. A mining lease will only be granted for activities specified in the development consent.

Section 65 states:

The Minister must not grant a mining lease over land if development consent is required for activities to be carried out under the lease unless an appropriate development consent is in force in respect of the carrying out of those activities on the land.

Biodiversity offset assessment

MEG requests that the Proponent consider potential resource sterilisation should any future biodiversity offset areas be considered. The Proponent must consult with MEG and any holders of existing mining or exploration authorities that could be potentially affected by the proposed creation of any such biodiversity offsets, prior to creation occurring. This will ensure there is no consequent reduction in access to prospective land for mineral exploration or potential for the sterilisation of mineral and extractive resources.

Summary of review

MEG has determined that should the project be approved; efficient and optimised resource outcomes can be achieved, and any identified risks or opportunities can be effectively regulated through the conditions of mining authorities issued under the *Mining Act 1992*.

MEG requests to review the draft conditions of approval before finalisation and any granting of development consent.

For further enquiries and advice in relation to this matter, please contact Scott Anson, Manager Assessment Coordination – Resource Assessments on 02 4063 6972 or <u>scott.anson@planning.nsw.gov.au</u>

Yours sincerely

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Stephen Wills **Executive Director Resource Operations Regional NSW – Mining, Exploration & Geoscience** 30 November 2020