NSW GOVERNMENT

Resources Regulator

FORM: FRM-207-2 v1.2

Our ref: MAAG0004294
LETT0003091

Elle Clementine
Planning and Assessment
Department of Planning, Industry and Environment Level 30, 320 Pitt Street
SYDNEY NSW 2001

Attn: Elle Clementine

McPhillamys Gold Project: Adequacy of Environmental Assessment

Dear Elle Clementine,

I refer to the correspondence dated 9 September 2019 inviting the Resources Regulator to provide advice regarding the adequacy of the McPhillamys Gold Project Environmental Impact Statement (dated 27 August 2019) for McPhillamys Gold Project.

Development Details

The McPhillamys Gold Project is a proposed gold mine located approximately 8 kilometres north-east of Blayney, NSW. The McPhillamys Gold Project proposes to:

1. Construct an open cut mining operation with a tailings storage facility (TSF), processing plant, waste rock emplacement (WRE) and ROM.
2. Construct a pipeline to enable the supply of water to the mine site from Lithgow.

The Resources Regulator has previously provided the following advice (Our Ref: MCV18/885, DOC18/586199) that:

a) The standard mining development rehabilitation SEARs be applied to this project.
b) The following SEARs be applied due to the identification of potential risk(s) as noted in the Project Details & Assessment section above:

i. A detailed options analysis of tailings disposal methods that provide low maintenance, safe stable non-polluting rehabilitation outcomes, with specific reference to long term seepage management.

ii. Assessment of TSF capping material concept design taking into account long term performance requirements and environmental risks.
iii. A detailed post closure site water balance with major consideration to TSF catchment, entrainment and seepage/discharge.

Environment and Rehabilitation

The Mining Act Inspectorate within the Resources Regulator has responsibility for providing strategic advice for environment issues pertaining to the proposed project in so far as they relate to or affect rehabilitation.

The Resources Regulator advises the Department of Planning, Industry & Environment – Resources Assessments that the SEARs for Rehabilitation have not been adequately addressed in the McPhillamys Gold Project Environmental Impact Statement (dated 27 August 2019) for Project McPhillamys Gold Project, dated 9 September 2019.

Issue 1: Conceptual Final Landform Design

Agency Requirement:

Conceptual final landform design:
Inclusion of a drawing at an appropriate scale identifying key attributes of the final landform, including final landform contours and the location of the proposed final land use(s)

Information required:

a) Figures provided in the EIS and Appendices do not provide an adequate level of detail for the TSF, WRE and ROM final landform. Provide drawings at an appropriate scale of the WRE and ROM final landform including, but not limited to, the following:

i. Plan view
ii. Section views, including reference to surrounding natural topography and any other proposed landforms or infrastructure.
iii. Contours including labels (where appropriate)
iv. Dimensions and slopes
v. Structures and materials

b) In support of the drawings requested above, provide an overview of the key characteristics of the final landform for the TSF, WRE and ROM. Based on the characterisation of materials, the overview should include a discussion on capping strategies; the source of associated capping material and associated volumes that may be required; and measures that will be implemented to ensure a sustainable post-mining landform that is commensurate with the surrounding natural areas is achieved.

Issue 2: Post-mining land uses

Agency Requirement:

(k) Description of how post-rehabilitation areas will be actively managed and maintained in accordance with the intended land use(s) in order to demonstrate progress towards meeting the rehabilitation objectives and completion criteria in a timely manner
(q) Where the intended land use is agriculture, demonstrate that the landscape, vegetation and soil will be returned to a condition capable of supporting this

Information required:

a) Grazing is identified as being part of the post mine land use. Additional information is required to demonstrate the land use will be effective and functional post-closure, including (but not limited to):

i. Assess the capacity of the final landform to sustain grazing, including assessment of potential impacts of grazing to the integrity of rehabilitated landforms.
ii. Outline measures that may be integrated into the final landform to support a functional grazing land use. Issues to address include accessibility to water (e.g. do dams need to be constructed), shelter for domestic stock and whether infrastructure may be required (e.g. fencing etc.) to support sustainable grazing practices.
iii. Provide consideration of other post mine land use options that will ensure the sustainability of the rehabilitated landform in the long term. Currently based on the lack of detail provided, the Regulator is concerned whether grazing practices can be achieved on the final landform without compromising the long term integrity of the rehabilitation.

b) Grass cover is proposed on the TSF but consideration of trees potentially naturally establishing on the TSF post-closure has not been provided. Provide an assessment of the TSF's ability to support tree establishment post-closure, including identification of potential impacts.

Issue 3: Progressive Rehabilitation

Agency Requirement:

(f) Mine layout and scheduling, including maximising opportunities for progressive final rehabilitation. The final rehabilitation schedule should be mapped against key production milestones (i.e. ROM tonnes) of the mine layout sequence before being translated to indicative timeframes throughout the mine life. The mine plan should maximise opportunities for progressive rehabilitation;

Information required:

a) An indicative project schedule and diagrammatic representation of rehabilitation progression is provided. However, further information is

required on the range of assumptions behind the life of mine rehabilitation schedule to determine whether opportunities for progressive rehabilitation have been maximised.

Issue 4: Tailings Management

Agency Requirement:

(s) i. provide a detailed options analysis of tailings treatment and disposal methods that may be applicable to the type of tailings generated from this project. This analysis must provide a clear justification of the preferred tailing treatment to demonstrate the feasibility of achieving low maintenance, safe stable non-polluting rehabilitation outcomes, with specific reference to long term seepage management.
iii. final capping material concept design, source of capping material and long term design considerations, taking into account the required performance of the capping material long term and likely environmental risks i.e. consolidation of underlying tailing materials.

*In*formation required:

a) an options analysis table for tailings treatment and disposal is provided, however is brief and unclear in nature. Clarity and detail regarding treatment, disposal methods and justification in relation to low maintenance rehabilitation outcomes and long term management of each option is required.

b) more detail regarding final capping design including how final landuse can be achieved with proposed capping and cover design since grass cover is proposed on the TSF but consideration of trees potentially naturally establishing on the TSF post-closure has not been provided.

It should be noted that this review does not represent the Resources Regulator's endorsement of the proposed rehabilitation methodologies as presented in the McPhillamys Gold Project Environmental Impact Statement (dated 27 August 2019). Under the conditions of a mining authority granted under the *Mining Act 1992*, the Resources Regulator, requires an authority holder to adopt a risk-based approach to achieving the required rehabilitation outcomes. The applicability of the controls to achieve effective and sustainable rehabilitation is to be determined based on the site specific risk assessments conducted by an authority holder. This risk assessment should be used to not only establish a basis for managing risk when planning an activity, but it should also be used and updated (as required) to continuously evaluate risk and the effectiveness of controls used to prevent or minimise impacts. An authority holder may also be directed by the Resources Regulator to implement further measures, where it is considered that a risk assessment and associated controls are unlikely to result in effective rehabilitation outcomes.

The Resources Regulator requests that provide information responding to the comments above.

Mine Safety

Mine Safety Operations within the Resource Regulator is responsible for ensuring mine operators manage the risk to worker health and safety though compliance with the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and the subordinate mining legislation. In particular the effective management of risk associated with the principal hazards as specified in the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*.

Mine Safety Operations have not identified any risk that would require comment in relation to this matter.

If you require additional information, please contact the Resources Regulator on 1300 814 609 (Option 2, then 5), or via email at nswresourcesregulator@service-now.com.

Yours sincerely

Christine Fawcett
Manager Environmental Operations
Resources Regulator
NSW Department of Planning, Industry & Environment

24 October 2019