Gippsland Critical Minerals

Fingerboards Critical Minerals Project
Study Briefs – Noise and Vibration Assessment

Overview

The noise and vibration assessment will involve characterising the existing noise and vibration conditions of the area surrounding the Project site, developing an understanding of the local meteorology and topography of the area and identification of nearby noise sensitive receivers and sensitive land uses that could be impacted by a change in the noise and vibration levels as a result of the Project.

On site monitoring will be carried out to characterise the existing noise and vibration conditions of the area and noise modelling will be undertaken to predict the potential noise emissions from construction, operation and closure of the Project.

The assessment will provide a scientific and evidence-based analysis of the Project's potential effects on the existing noise and vibration environment surrounding the Project and practical mitigation strategies to avoid, minimise and manage noise and vibration, protect the social amenity of the area and protect the health and wellbeing of residents and the local community.

Assessment Objectives

- Characterise the existing conditions of the area to establish existing noise and vibration levels, identify nearby sensitive receptors and land uses and develop an understanding of the local meteorology and topography of the area to determine the possible noise propagating conditions.
- Assess all potential noise and vibration impacts of the proposed mine across construction, operations and rehabilitation, focusing on how both noise and vibration might propagate in the area.
- Integrate findings and recommendations with project design to avoid noise and vibration impacts where possible.
- Develop additional mitigation measures to minimise and manage noise and vibration from the Project and protect community health, local amenity, natural environments and buildings and other structures of the surrounding area.
- Support engagement with the local community to ensure that their concerns over noise and vibration impacts are addressed in the assessment process and outcome reporting.
- Support informed decision-making by providing a robust and transparent assessment with practical mitigation strategies.

Preliminary Focus Areas

- **Baseline investigations -** review of relevant documentation and previous investigations and onsite monitoring to appropriately characterise the existing conditions of the area.
- **Noise criteria-** Development of project specific noise (and vibration) criteria in accordance with Victorian legislation to be used for the impact assessment.
- **Noise modelling -** Evaluation of the predicted noise and vibration levels from construction, operation and closure of the Project at nearby sensitive receivers using advanced modelling software (3D SoundPLAN)
- **Impact assessment-** Assessment of predicted noise and vibration levels from the Project against the relevant criteria to understand the potential change in noise and vibration levels as a result of the Project.
- **Mitigation and Compliance-** Identification of appropriate mitigation measures in response to the modelling and impact assessment to avoid, minimise and manage potential noise and vibration impacts.
- **Stakeholder engagement -**Support community meetings and transparent reporting, allowing the local community to provide feedback and understand the findings, including planned mitigation measures.

Specialist Consultant

AECOM Australia, the lead environmental consultant to GCM for the Project, will deliver the noise and vibration assessment. They are an internationally recognised infrastructure consulting firm with multidisciplinary teams that provide independent, science-based assessment and modelling across air quality, hydrology, ecology, noise and related disciplines. The local Melbourne noise and vibration team at AECOM has extensive experience leading noise and vibration assessments for Environment Effects Statements for major infrastructure project including major mining projects across Victoria and Australia. More information can be found at https://aecom.com/en-au/

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