



Environmental Protection Authority

Ms Michelle Berryman
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KALGOORLIE WA 6433

Your Ref:
Our Ref: CMS14284
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Dear Ms Berryman

NOTICE UNDER SECTION 39A(3) *Environmental Protection Act 1986*

PROPOSAL: KCGM Hidden Secret Project
LOCATION: City of Kalgoorlie-Boulder
PROPOSER: KCGM
DECISION: Not Assessed: Public Advice Given

The Environmental Protection Authority (EPA) understands that you wish to undertake the above proposal which has been referred to the EPA for consideration of its potential environmental impact.

This proposal raises a number of environmental issues. However, the overall environmental impact of the proposal is not so significant as to require assessment by the EPA, and the subsequent setting of formal conditions by the Minister for Environment under Part IV of the *Environmental Protection Act 1986*. Accordingly, the EPA has determined not to assess this proposal.

Nevertheless, the EPA has provided the attached advice to you as the proponent, and other relevant authorities, on the environmental aspects of the proposal.

The EPA's decision to not assess the proposal is open to appeal. There is a 14-day period, closing 13 April 2015, during which, on payment of the appeal fee, an appellant may ask the Minister to consider directing the EPA to reconsider this decision or conduct a formal assessment.

Information on the outcome of the appeals process is available through the Appeals Convenor's website, www.appealsconvenor.wa.gov.au, or by telephoning 6467 5190 after the closing date of appeals.

Yours sincerely



Anthony Sutton
Director
Assessment and Compliance Division

For the Chairman of the Environmental Protection Authority
Under Notice of Delegation No. 33 dated 6 December 2013

30 March 2015

Encl: Public Advice

**PUBLIC ADVICE UNDER SECTION 39A(7)
ENVIRONMENTAL PROTECTION ACT 1986**

KCGM HIDDEN SECRET PROJECT

Summary

The proposal referred to the Environmental Protection Authority (EPA) is the Hidden Secret underground Mine.

Kalgoorlie Consolidated Gold Mines Pty Ltd (KCGM) proposes to mine for gold at the Hidden Secret ore body. Hidden secret is an underground ore body located east of Williamstown, 350 metres east of the Mt Charlotte underground mine. The Mt Charlotte Underground Mine is operated by KCGM and is located adjacent to the City of Kalgoorlie-Boulder, approximately 600 kilometres east of Perth.

Mining at Hidden Secret will be occurring between 215 and 440 metres below surface, with deeper operations located under some residential properties in Williamstown. The proposal is estimated to contain 665,000 tonnes of ore and is expected to increase the life of the Mt Charlotte Underground Mine by two years. The proponent will be utilising existing infrastructure from the Mt Charlotte operations for this proposal including the decline portal to haul material to the Mt Charlotte processing facilities, the mine ventilation system and existing mining equipment with the addition of a haul pak. In relation to the underground mining operations, KCGM is effectively maximising the use of its existing fleet.

The proposal was advertised for public comment and the EPA notes that seven public comments were received, of which five comments preferred a level of assessment at Public Environmental Review and two comments preferred Assessment on Proponent Information – Category B. The main issues raised during the public comment period included the following:

- significant reserves exist in the project vicinity and this proposal should be considered in the full scope of the development, not just a limited expansion;
- health and safety concerns from potentially toxic fumes from the vent fans;
- increase in noise and vibration disturbances;
- property damage exacerbated from underground blasting;
- underground mining disasters, such as collapsing; and
- impacts to residents at Williamstown.

The EPA has considered the proposal in accordance with the requirements of the *Environmental Protection Act 1986* (EP Act) and the *Environmental Impact Assessment Administrative Procedures 2012*. In making its decision on whether to assess the proposal, the EPA considered the 10 aspects of the significance test as set out in clause 7 of the *Environmental Impact Assessment Administrative Procedures 2012*:

1. values, sensitivity and quality of the environment which is likely to be impacted;
2. extent (intensity, duration, magnitude and geographic footprint) of the likely impacts;

3. consequence of the likely impacts (or change);
4. resilience of the environment to cope with the impacts or change;
5. cumulative impacts with other projects;
6. level of confidence in the prediction of impacts and the success of proposed mitigation;
7. objects of the Act, policies, guidelines, procedures and standards against which a proposal can be assessed;
8. presence of strategic planning policy framework;
9. presence of other statutory decision-making processes which regulate the mitigation of the potential effects on the environment to meet the EPA's objectives and principles for EIA; and
10. public concern about the likely effects of the proposal, if implemented, on the environment.

In considering the potential impacts of the Hidden Secret proposal on Air Quality and Atmospheric Gases, and vibration impacts on Amenity, the EPA has had particular regard to:

- Underground mining operations already occur at the existing Mt Charlotte underground mine. The Hidden Secret proposal will utilise existing infrastructure and underground mining equipment. The Hidden Secret proposal is likely to result in a small incremental increase in the potential impacts on Air Quality and Atmospheric Gases, and noise and vibration impacts on Amenity.
- The proponent has in place a Noise and Vibration Monitoring and Management Plan that specifies accepted standards, monitoring and reporting requirements for the existing Mt Charlotte underground mine. The Plan will be updated to include the Hidden Secret proposal.
- The advice of the Department of Mines and Petroleum (DMP) that the air quality in the underground operations and the potential vibration impacts from blasting can be managed and regulated under the *Mining Act 1978* and the *Mines Safety and Inspection Act 1994*
- The advice of the Department of Environment Regulation (DER) that the existing Mt Charlotte ventilation fans will need to meet the requirements of the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations) and consequently the Hidden Secret proposal, if subsequently implemented, will also need to meet the requirements of the Noise Regulations.

In summary, although the proposal raises environmental issues, the EPA's objectives for Air Quality and Atmospheric Gases, and noise and vibration impacts on Amenity, can be met. This is primarily on the basis that the Hidden Secret proposal will result in a small incremental increase in the potential impacts from the existing Mt Charlotte underground mining operations. The existing ventilation fans that will be used for the duration of the Hidden Secret proposal are expected to meet the Noise Regulations. The air exhausted from the mining operations through the ventilation fans is air that is of a quality for workers to operate in. In relation to vibration, given the smaller blast area size compared to the existing Mt Charlotte mining operations, it is expected to contribute to only a small incremental increase in the generation of blasting fumes and dust. Air quality aspects, including dust and atmospheric contaminants from the

proposed Hidden Secret underground operations are expected to meet the Mining Proposal provisions of the *Mining Act 1978* and the *Mines Safety and Inspection Act 1994*.

As a result, the EPA considers the potential impacts are not so significant as to warrant formal assessment. In addition, the EPA is also of the view that the potential impacts can be effectively dealt with through other Statutory decision – making processes. These include the *Environmental Protection (Noise) Regulations 1997*, the *Mining Act 1978* and the *Mines Safety and Inspection Act 1994*.

1. Environmental Factors

The EPA has identified the following preliminary environmental factors relevant to this proposal:

- a) Amenity - the potential impacts of noise from operations and vibration from blasting; and
- b) Air Quality and Atmospheric Gases - the exhausting of air from the underground operations through ventilation fans.

There were no factors that were determined to be key environmental factors that would require formal assessment under Part IV of the EP Act.

2. Advice and Recommendations regarding Environmental Issues

The EPA notes that the proposal referred to the EPA is the Hidden Secret underground mine. Mining will occur below ground level (between 214 and 440 metres) and will be utilising existing infrastructure from the adjoining Mt Charlotte underground mine. The EPA has therefore considered the likely incremental and cumulative impacts of the Hidden Secret proposal.

a. Amenity (Noise and Vibration)

Noise

There are three existing surface ventilation fans for the Mt Charlotte Underground Mine. The ventilation fans will be used for the ventilation of Hidden Secret to draw in and exhaust air for underground operations. One of the ventilation fans that is part of the existing Mt Charlotte underground operations attracts a small number of localised noise complaints. This ventilation fan known as the Southern Ore Body (SOB) ventilation fan has been in operation since 1985. The EPA notes that due to existing community concerns, KCGM has significantly reduced noise levels from this fan by up to 37 decibels through a major upgrade of the ventilation fan. The EPA also notes that KCGM is proposing to continue to monitor the SOB fan and, if necessary, identify additional measures to mitigate the potential noise impacts to meet the requirements of the Noise Regulations. The EPA is of the view that the Hidden Secret proposal has potential to extend the length of time that the fan will operate for the life of mine but it will not in itself cause an increase in noise emissions. As also noted in the description of the proposal, the use of the existing underground fleet will be maximised rather than being significantly increased and, therefore, it is unlikely to cause a significant increase in noise.

The proponent has an existing Noise and Vibration Monitoring and Management Plan for its operations that identify standards, protocols management and monitoring of noise. This plan will be updated and implemented for the Hidden Secret proposal.

The Hidden Secret proposal will need to meet the requirements of the Noise Regulations.

Vibration

The proposal may also potentially impact on Amenity through vibration caused from blasting activities.

The DMP has also provided advice in relation to vibration and considers that blasting activities can be adequately managed via the Mining Proposal provisions of the *Mining Act 1978* and under the *Mines Safety and Inspection Act 1994*. Controlled blasting and seismic monitoring will be used by the proponent to manage vibration and seismicity for the proposal. The EPA notes that blast vibration modelling has indicated that vibration levels will be below 2.5 mm/s, which is well below the regulatory limits that 90% of blasts should not exceed 5 mm/s and no blasts should exceed 10 mm/s. Given the above management measures, and in view of the low vibration levels predicted in the modelling, the EPA considers that the proposal would meet the EPA's objectives for vibration impacts on Amenity.

The proponent has committed to review, update and implement the Noise and Vibration Monitoring and Management Plan. The proposal is subject to the requirements of the *Mining Act 1978* and the *Mines Safety and Inspection Act 1994*.

b. Air Quality and Atmospheric Gases

The Mt Charlotte ventilation fans will be used for the ventilation of the Hidden Secret proposal to draw in and exhaust air for underground operations. Effectively, the air drawn in and which is then exhausted, is air that the workforce operates in. Blasting events being an exception. The surface release of blast fumes is managed by switching off the vent fan until the blast fumes have had adequate time to dissipate within the mine. Switching off the vent fan also results in reversing the flow in the raise bore, such that the blast fumes and dust are not released on the surface from the SOB vent fan located near Williamstown. The proponent has in place existing strategies, monitoring and management to ensure blasting is managed to the requirements of the DMP.

The DMP has provided advice that given the smaller blast area size compared to the existing Mt Charlotte mining operations, it is expected to contribute to only a small increment in the generation of blasting fumes and dust. The DMP also advised that the air quality aspects, including dust and atmospheric contaminants from the proposed underground operations can be adequately managed via the Mining Proposal provisions of the *Mining Act 1978* and under the *Mines Safety and Inspection Act 1994*.

Given the above management measures and that underground mining operations need to meet air quality requirements that allow workers to safely operate underground, the proposal is expected to meet the EPA's objectives for Air Quality and Atmospheric Gases.