



Environmental Protection Act 1986

**Hon Donna Faragher JP MLC**  
**Minister for Environment**

## **MINISTER'S APPEAL DETERMINATION**

### **FIMISTON PLANT AND TAILINGS DISPOSAL MINING TENEMENT NUMBER M26/46, KALGOORLIE, KALGOORLIE CONSOLIDATED GOLD MINES PTY LTD (KCGM)**

#### **Purpose of this document**

This document sets out the Minister's decision on appeals lodged under section 102 of the *Environmental Protection Act 1986* in relation to the conditions of a licence issued by the Department of Environment and Conservation. This document is produced by the Office of the Appeals Convenor for the Minister but is not the Appeals Convenor's own report, which can be downloaded from the Appeals Convenor's website at [www.appealsconvenor.wa.gov.au](http://www.appealsconvenor.wa.gov.au)

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<b>Appellants:</b>	Mr R D Jones; Mr Steve Kean; Mr Lawrence Mills.
<b>Licence holder:</b>	Kalgoorlie Consolidated Gold Mines Pty Ltd
<b>Proposal description:</b>	Fimiston Plant and Tailings Disposal, Mining Tenement Number M26/46
<b>Minister's Decision:</b>	The Minister allowed the appeals in part.
<b>Date of Decision:</b>	4 November 2009

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#### **REASONS FOR MINISTER'S DECISION**

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Appeals were lodged against the:

- Conditions of licence number L6240/1988/10;
- Conditions of works approval number W4478/2008/1, relating to a three metre raise to the Fimiston II tailings storage facility (TSF); and
- Conditions of works approval number W4515/2008/1, relating to a 2.5 metre raise to the Fimiston I TSF.

Given that the appeals against licence number L6240/1988/10 and works approval numbers W4478/2008/1 and W4515/2008/1 raised a number of common issues, particularly in relation to groundwater, the Minister for

Environment addressed all of the appeals in her determination, which is outlined below.

The Minister also noted that a number of the concerns raised have been comprehensively addressed through previous appeals and inquiries relating to this site.

Pursuant to section 106 of the *Environmental Protection Act 1986* (the Act), the Minister obtained reports from the Department of Environment and Conservation (DEC) on the matters raised in the appeals. The Minister also received a report from the Appeals Convenor which sets out the background and other matters relevant to the appeals.

The Appeals Convenor held discussions with appellants in order to obtain a thorough understanding of the concerns raised. As well, the Minister was advised that Kalgoorlie Consolidated Gold Mines Pty Ltd (KCGM) was provided with an opportunity to respond to the matters raised in the appeals.

The grounds of appeal are comprehensively addressed in the Appeals Convenor's report, and are summarised under the following headings:

1. Seepage and Groundwater Management Plan (SGMP);
2. Environmental harm caused by seepage;
3. Groundwater quality targets;
4. Term of licence number L6240/1988/10;
5. The Tailings Storage Facility (TSF) "operating area" - Fimiston I and II;
6. Condition 12 of Licence L6240/1988/10 is inconsistent with the Act;
7. Condition G1 of works approval number W4478/2008/1 is ambiguous and unenforceable; and
8. Environmental Assessment Report (EAR) supporting works approval number W4478/2008/1.

The Minister's decision against each ground of appeal is outlined in the attachment to this decision report. The Minister's consideration of the central issues is detailed below.

## **APPEALS CONSIDERATION**

The Appeals Convenor reported that a number of aspects of KCGM's operations have been the subject of appeals. The Minister was advised that the key concerns raised in these appeals and previous appeals are that seepage from the TSFs has caused pollution and elevated water tables and that both the ongoing operation and proposals to raise these TSFs will exacerbate existing impacts and cause damage to native vegetation and affect adjacent landholdings. Appellants were of the view that the conditions applied to works approvals and licences issued by the DEC are deficient and do not adequately protect the environment from impacts from seepage.

The Minister was aware that a number of reviews have been completed in this regard. As a consequence of these reviews and appeals, the Appeals Convenor reported that an overarching strategy was established to manage the impacts of the existing TSF on the surrounding environment. The Minister was advised by the Appeals Convenor that as part of this strategy KCGM was required to prepare and implement a SGMP to manage and control groundwater around the Fimiston I and Fimiston II TSFs. The Minister understood that the Plan was initially developed with the following objectives:

- Estimate historic groundwater levels;
- Minimise the normal operating supernatant pool area on the TSFs;
- Maximise the performance of the Eastern Borefield;
- Construct additional groundwater monitoring bores;
- Increase the frequency of monitoring groundwater levels;
- Increase the frequency and scope of monitoring groundwater quality; and
- Continue vegetation monitoring.

The Appeals Convenor reported that the Plan establishes performance tools and targets for the long-term management of TSF seepage and incorporates the recommendations of the reviews undertaken, and the outcomes of previous appeals and audits against various aspects of KCGM's operations.

The Minister was advised that KCGM has developed a SGMP in consultation with stakeholders. The Minister noted that the primary aim of the Plan is to ensure that groundwater levels resulting from seepages from the TSFs do not adversely impact on vegetation. The overall long-term objective of the Plan is to decrease groundwater levels to historical levels.

Both the DEC and KCGM advised the Minister that historic groundwater levels have now been established and accepted by both the DEC and Department of Water (DoW) as a reasonable estimation of groundwater depths in the area prior to the commencement of tailings deposition by KCGM. The Minister considered that the establishment of agreed historic levels will assist in the identification of appropriate management options and for agreed groundwater reduction targets to be defined.

The Appeals Convenor advised the Minister that the current SGMP sets a groundwater level limit of four metres and a target of six metres below ground surface. From the information provided by the DEC, these levels have been demonstrated to be effective in ensuring that vegetation in the vicinity of the TSF's are not adversely impacted by seepage from the TSFs which could cause rises in groundwater levels.

The DEC advised that it has also incorporated the groundwater level reduction targets into the conditions of the operating licence for the site. Conditions 1 and 2 of the licence require a minimum depth to groundwater below ground level of four metres and a target of six metres.

The DEC further advised that groundwater monitoring has been increased in response to the reviews and inquiries relating to the site. As a result, the Minister understood that the monitoring program required through the licence focuses on the identified key aspects relating to seepages from the TSFs and includes regular monitoring of a range of key parameters including groundwater level. The Minister was advised that monitoring of vegetation is also undertaken to determine whether management actions and groundwater levels are adequate to ensure no adverse impacts on the surrounding environment.

The Appeals Convenor reported that the SGMP will continue to be adapted and expanded over time and that the plan is subject to an annual independent audit, the results of which are made available to the public. However, the Appeals Convenor advised that during the investigation of the appeals it was evident from the concerns raised by appellants that there was an expectation the SGMP would also include staged targets towards meeting historical groundwater levels.

The Minister noted that the reduction of groundwater levels to historic levels will require the removal of large volumes of groundwater over time. While the establishment of limits and targets, through both the SGMP and the licence, will ensure that groundwater levels continue to be managed by KCGM, the Minister agreed with the Appeals Convenor that KCGM should be required to demonstrate continuous improvement in its long-term objective of achieving historic groundwater levels.

In response to this issue, the Minister was advised that KCGM has recently provided a copy of its draft revised SGMP which outlines the goal for the coming year (2010) to achieve an initial staged groundwater level target of greater than six metres in all Compliance Monitor Bores and that staged targets beyond this time will be determined within the next 12 months.

## **APPEALS DETERMINATION**

Overall, after having considered these appeals, advice from the DEC and KCGM and the Appeals Convenor's Report, the Minister for Environment formed the view that the conditions set within licence number L6240/1988/10 and works approval numbers W4478/2008/1 and W4515/2008/1 are reasonable and are consistent with previous appeals, reviews and investigations.

While the Minister noted that the development of staged targets for groundwater level reductions has been included as an action within the draft SGMP, it was the Minister's expectation that this process should involve appropriate stakeholder consultation, including the DEC, the Community Reference Group, DoW and other interested parties, to ensure that the development of the staged targets occurs through an open and transparent process. In this regard, the Minister has specifically written to the Minister for Water requesting the DoW's involvement in this process. The Minister has also written to the DEC outlining her expectation that the licence would be amended as appropriate to ensure that the limits and targets relating to groundwater levels are progressively updated in line with the agreed staged targets.

The Minister also upheld appeals to the extent that:

1. Attachment 1 of licence number L6240/1988/10 be reviewed to ensure that the footprint of the TSFs (including integral components) and the “operational area” are clearly delineated at the next review/amendment of the licence and associated SGMP.
2. Condition G1 of works approval number W4478/2008/1 be modified in accordance with the following intent:

The works approval holder shall construct the works in accordance with the works approval application form dated 12 September 2008 and the ‘Addendum to Notice of Intent: Proposed Increase in the Storage Capacity of the Fimiston II Tailings Storage Facility at KCGM’, Golder Associates, September 2005.

On the works approvals pertaining to the next staged lifts of Fimiston I and Fimiston II, the Minister acknowledged that progressive raises of TSFs are subject to KCGM demonstrating that groundwater levels are being managed in accordance with the agreed targets within the SGMP. The information contained within the 2008 annual audit and the advice from the DEC indicate that KCGM continues to make progress in the implementation of the Plan and that the measures taken are generally effective in managing groundwater levels. On this basis, the Minister dismissed the appeals against the conditions of works approval.

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Note: this decision is published pursuant to the terms of section 110 of the *Environmental Protection Act 1986* and regulation 8 of the *Environmental Protection Regulations 1987*.

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## **Attachment 1 Summary of Decision**

	<b>APPEAL GROUND</b>	<b>DETERMINATION</b>	<b>PAGE OF AC REPORT</b>
1	<b>Seepage and Groundwater Management Plan</b>	Allow in part	9
2	<b>Environmental harm caused by seepage</b>	Dismiss	14
3	<b>Groundwater quality targets</b>	Dismiss	18
4	<b>Term of licence number L6240/1988/10</b>	Dismiss	19
5	<b>The TSF “operating area” - Fimiston I and II</b>	Allow	20
6	<b>Condition 12 of Licence L6240/1988/10 is inconsistent with the Act</b>	Dismiss	21
7	<b>Condition G1 of works approval number W4478/2008/1 is ambiguous and unenforceable</b>	Allow	22
8	<b>Environmental Assessment Report (EAR) supporting works approval number W4478/2008/1</b>	Dismiss	24

\* The DEC should also rectify the typographical errors identified within licence number L6240/1988/10 and works approval number W4515/2008/1 in accordance with the amendment provisions of the Act.