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Please find attached the Minerals Council of Australia, Victorian Division's submission to Terms of Reference 8-10 (Mine Rehabilitation) of the Board of Inquiry into the Hazelwood Mine Fire.

Regards

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# MINERALS COUNCIL OF AUSTRALIA VICTORIAN DIVISION

SUBMISSION TO HAZELWOOD MINE FIRE INQUIRY  
(REOPENED)

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24 AUGUST 2015

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## 1. EXECUTIVE SUMMARY

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The Minerals Council of Australia Victorian Division (MCA) is pleased to present its submission to the 2015 Hazelwood Mine Fire Inquiry.

This submission highlights the minerals industry's high level policy and regulatory objectives on risk management and rehabilitation while leaving the technical discussion and options for rehabilitation and mine closure to mine operators and specialist engineering firms. The submission makes no comment on the specific mine fire.

The minerals industry is committed to sustainable development and strives for continuous improvement attuned with environmental and community expectations. The industry has developed a number of policy positions and leading practice guidance that address life of mine impacts.

Mining operations, both small and large, are complex, dynamic, technically advanced and must continually respond to market and regulatory conditions. Policy and regulatory settings must be cognisant of this and allow for flexibility in achieving regulatory objectives.

The minerals industry supports the 2014 Board of Inquiry report into the Mine Fire, namely that the "State:

- bring forward the commencement date of s.16 of the Mineral Resources (Sustainable Development) Amendment Act 2014 (Vic), to facilitate the requirement that approved work plans specifically address fire prevention, mitigation and suppression
- acquire the expertise necessary to monitor and enforce compliance with fire risk measures adopted by the Victorian coal mining industry under both the mine licensing and occupational health and safety regimes".

The MCA urges the 2015 Board of Inquiry to carefully consider any specific recommendations around rehabilitation and ensure that they are based on international leading practice methods and suitable to the underlying geological and landscape conditions.

Rehabilitation is a complex issue that is considered prior to mineral extraction and further evolves over time with mine development. Each site has unique attributes and a 'one-size-fits-all' approach is not possible.

The minerals industry therefore continues to advocate that:

- risk management underpin all policy and regulatory settings
- these settings acknowledge that each mine has a unique set of circumstances and risks that require holistic, rather than individual, risk management
- economic, social and environmental considerations be weighted to acknowledge the significant contribution mining makes to regional economic development
- consistent and aligned regulatory practice with risk management expertise recruited into regulatory agencies is essential
- rehabilitation bond models that are efficient and effective be applied in a consistent manner across all sites, encourage progressive rehabilitation and do not assume all sites will default.

## 2. INTRODUCTION

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### The Minerals Council of Australia

The Minerals Council of Australia is the peak industry organisation representing Australia's exploration, mining and minerals processing industry, nationally and internationally, in its contribution to sustainable development and society. The MCA's strategic objective is to advocate public policy and operational practice for a world-class industry that is safe, profitable, innovative, and environmentally and socially responsible attuned to its communities' needs and expectations.

The Victorian division of the MCA represents the interests of member companies operating, exploring and providing services to the industry in Victoria. Policy positions of the Victorian industry are one and the same as the entire Australian minerals industry. The MCA operates on a platform of national consistency and therefore considers that minerals operations in all jurisdictions should be subject to the same policies and legislative frameworks.

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### The Victorian minerals industry

The Victorian minerals industry has traditionally been an important contributor to Victoria's economy, particularly in regional and rural Victoria.

The Victorian minerals industry is often separated into the coal sector and the metalliferous sector. The metalliferous sector is dominated by four operating gold mines and a mineral sands processing operation. Mining is one of the oldest sectors of Victoria's (and indeed Australia's) economy, operating continuously for the last 160 years.

The coal mining sector is predominately based in the east of the state, in the Latrobe Valley. The resource is well defined: 33 billion tonnes of lignite (brown coal) has been identified as economically recoverable<sup>1</sup>. This represents a massive resource able to meet Victoria's, and indeed Australia's energy needs into the future while also providing for the potential development of the coal resource for non-energy uses. Current estimates of Victoria's recoverable lignite resources are approximately 465 years of production.<sup>2</sup>

Australia's world class brown coal deposit, predominately located in the Gippsland Basin, is the second largest deposit in the world (following Russia) and represents 23 per cent of the world's total brown coal resources<sup>3</sup> - a valuable endowment for the people of Victoria. Victoria's lignite royalties were \$36 million in 2013-14 and are projected to sum to \$179 million in the five years to 2018-19.<sup>4</sup>

Victoria's brown coal contains low ash and sulphur and is readily mined at low cost. The three Latrobe Valley coal mines (Loy Yang, Hazelwood and Yallourn) collectively constitute the largest brown coal mining operation in the southern hemisphere. The mines delivered nearly 58 million tonnes of coal in 2013-14<sup>5</sup> to the four power stations. In addition, the Anglesea mine to the west of Melbourne has supplied brown coal to Alcoa's Anglesea Power Station but will close in August 2015.

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<sup>1</sup> State Government of Victoria, [Lignite/Brown Coal](#), 2015

<sup>2</sup> A. F. Britt *et al.*, [Australia's Identified Mineral Resources 2014](#), Geoscience Australia, Canberra, p. 4

<sup>3</sup> Geoscience Australia, [Australian atlas of mineral resources, mines and processing centres](#), 2012

<sup>4</sup> Victorian Government, [Victorian Budget 2015-16, Budget Paper 5: Statement of Finances](#), p. 185

<sup>5</sup> State Government of Victoria, [Lignite/Brown Coal](#), 2015, <http://www.energyandresources.vic.gov.au/earth-resources/victorias-earth-resources/coal>

Lignite fuels 86 per cent of Victoria's grid electricity generation (22 per cent of national generation), providing reliable and affordable electricity for businesses and households.<sup>6</sup>

It is clear that for the foreseeable future, coal and other fossil fuels will continue to play a significant role in meeting growing global and Australian energy demands, providing energy security, and in Victoria's case, generating significant energy, employment and investment.

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<sup>6</sup> Electricity Supply Association of Australia, [Electricity Gas Australia 2015](#)

### 3. MINERALS INDUSTRY COMMITMENT TO SUSTAINABLE DEVELOPMENT

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Members of the MCA have a long-standing commitment to sustainable development including the responsible stewardship of natural resources.

*Enduring Value - The Australian Minerals Industry Framework for Sustainable Development*<sup>7</sup> puts the minerals industry's commitment to sustainable development into practice. In the mining and metals sector, sustainable development means that minerals projects should be safe, financially profitable, technically appropriate and environmentally and socially responsible.

*Enduring Value* was developed by the minerals industry and launched in 2006 as an articulation of the industry's commitment to sustainable development. Since its adoption by MCA member companies it has been recognised internationally as a leading industry model. The influence of the *Enduring Value* framework is evident in a wide range of legislation, tools and guidance materials applicable to extractive industries in Australia and the region.

*Enduring Value* has been recently updated to reflect emerging global initiatives in the areas of human rights and materials stewardship. It also been simplified to reflect the extent to which the principles of sustainable development have been integrated into company practices.

Industry and external stakeholders were engaged in the update to test the relevance, focus and approach of the *Enduring Value* framework. This affirmed its value as a tool for continuous improvement in sustainability over and above legislative requirements.

The *Enduring Value* framework drives continuous improvement of the industry's performance on the social, safety and environmental aspects of its activities in three ways:

- it is a condition of membership of the MCA that companies accept the principles of *Enduring Value*
- it assists the industry to operate in a manner that is attuned to the expectations of the community and which seeks to maximise the long-term benefits to society that can be achieved through the effective management of Australia's natural resources
- it provides practical guidance to companies on how to translate the ten principles of *Enduring Value* into practices that support their sustainable development goals.

#### Rehabilitation and Mine Closure Policy

While mining is a temporary land use, the minerals industry acknowledges its responsibility to contribute towards sustainable land use outcomes.

Principle 6 of *Enduring Value*: Seek continual improvement of our environmental performance - specifically describes commitments for rehabilitation, mine closure and cumulative impacts.

At a national level, the minerals industry's 'footprint' in the landscape is relatively small. While granted mining leases account for around 0.6 per cent<sup>8</sup> of the Australian land mass, the minerals industry 'footprint' (including waste) occupies less than 0.3 per cent.<sup>9</sup> The minerals industry can be a significant land manager at a regional level and non-operational land managed by the industry can be significantly larger than the mining footprint. This land may be managed under existing or alternative land uses.

The minerals industry recognises that while some previously mined areas are rehabilitated to pre-existing condition or better, other mined areas result in substantial transformation of the landscape. It is the minerals industry's goal to ensure that this land is available for beneficial post-mining land use, including economic activities, conservation or community use.

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<sup>7</sup> Minerals Council of Australia, [Enduring Value](#), 2015

<sup>8</sup> SNL Metals & Mining (formerly Intierra RMG)- Mining and Minerals database, December 2012.

<sup>9</sup> ACLUMP (2009); *Land Use Summary Australia, Australian Collaborative Land Use and Management Program*, 19 October

Mining activities will aim to minimise disturbance, and provide for ongoing progressive rehabilitation, directed at achieving an agreed final land use that is both stable and self-sustaining. Both operational and non-operational land should further be managed responsibly considering adjacent and future land uses.

The post-mining land use should be considered at the mine design stage and defined through an ongoing consultation process with regulators and relevant stakeholders. Closure design should aim to facilitate beneficial post-mining land use; this may include future economic activity, conservation or social use.

### **Cumulative Impact Industry Guide**

Cumulative impact assessment (CIA) is an approach to environmental impact assessment that aims to consider the effects of multiple actions or impacts on the environment. CIAs are conducted across the actual and potential impacts of a number of activities or projects that may combine over time and/or space with appropriate limitations by reference to the action being assessed and its foreseeable impacts. In areas of multiple existing or proposed operations, the understanding of the combined effects of activities on the environment is vital to delivering well-planned, well-managed and sustainable development. The concept of cumulative environmental impact assessment is not new; however, the requirements and expectations for project proponents to undertake cumulative impact assessments continue to evolve.

Accordingly, the MCA, in July 2015, released an industry guide<sup>10</sup> to assist individual proponents/companies in conducting well-designed, leading practice cumulative environmental impact assessments. The guide is intended primarily for mining industry environmental planners and their consultants who are responsible for preparing environmental impact assessment documentation.

The key findings and recommendations in the guide are:

- the assessment of cumulative impacts should not be an automatic requirement for all projects. Cumulative impact assessments should be undertaken only where there is a likelihood of significant impacts on identified environmental values from more than one activity
- no single approach to cumulative impact assessment can satisfy the unique circumstances faced by all projects. Cumulative impact assessments should be 'fit for purpose' and avoid overly prescriptive processes
- cumulative impact assessments can and should be applied at different scales with different aims, methodologies and governance. The approach taken should be rigorous but adapted to suit the specific circumstances faced. It should be risk-based and consider only those factors that are materially affected
- data sharing requirements should be proportionate and material to the regulatory need, and commercial in confidence should be preserved. There is a role for governments to facilitate data access, including the disclosure of data where it is not commercially sensitive
- When accounting/forecasting the impacts of third party activities, proponents should only be required to consider impacts where sufficient information is publicly available to inform the assessment or to enable robust assumptions to be made. Only the following should be included in the assessment:
  - certain projects (existing or confirmed) – these include those in operation, those that have commenced construction or have made a financial announcement
  - reasonably foreseeable projects – these include those projects where financial forecast are positive and which have been approved and commencement announced or are under assessment and full documentation is available.

Speculative projects should not be included. This includes projects which have been referred and/or announced but are not under assessment.

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<sup>10</sup> Minerals Council of Australia, [Cumulative Environmental Impact Assessment – Industry Guide](#) 2015.

## 4. POLICY AND REGULATORY ISSUES

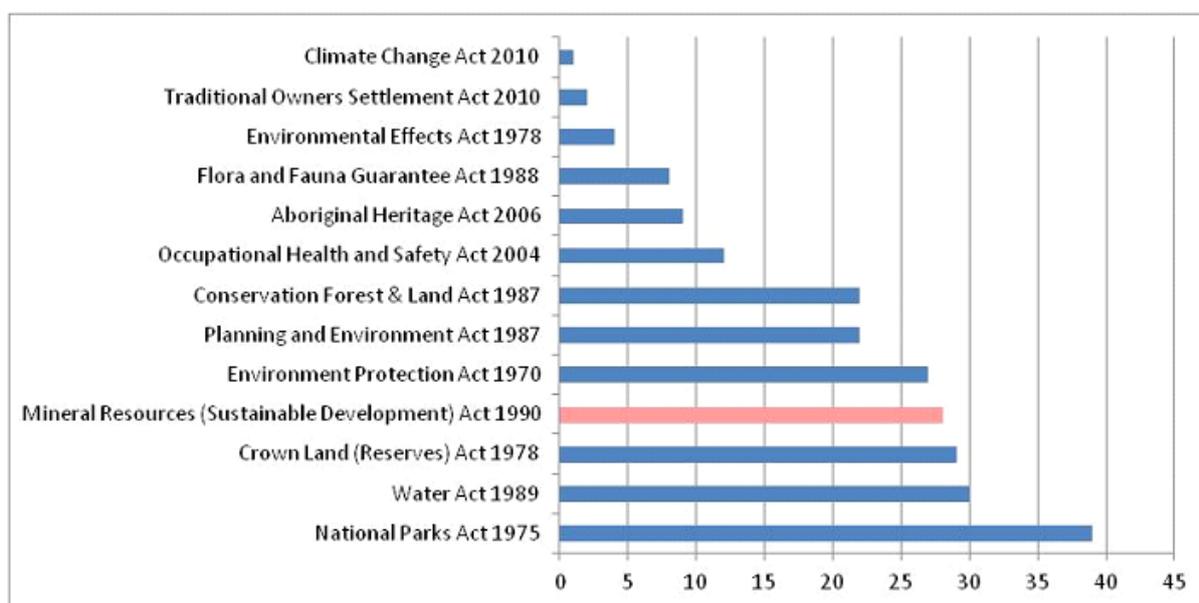
Mining operations, regardless of size are complex, dynamic, technically advanced and must continually respond to market and regulatory conditions. Policy and regulatory settings must therefore be cognisant of this and allow for flexibility in achieving regulatory objectives.

### Risk Management

The Board of Inquiry into the Hazelwood Mine Fire (2014) received numerous submissions specifically focusing on mine management. The board's report to the former government therefore made a number of observations and recommendations regarding the policy and regulatory environment governing both operating and non-operational mining land.

The first Victorian Government submission to the Inquiry described the range of regulatory instruments applying to mines in Victoria and comprehensively articulated the approvals process and compliance regime, therefore this submission does not seek to restate this. One area to note however is the urgent need for the *Mineral Resources (Sustainable Development) Act 1990* (MR(SD)A) to move to a risk based regulatory framework. The minerals industry has long advocated for this approach as well as closer alignment between the regulatory approaches of the earth resources regulator and Worksafe Victoria.

Regulatory reform is a frustratingly slow process and is often undertaken in a piecemeal fashion with amendments to discrete sections of Acts and regulations and numerous administrative and technical tweaking. A review undertaken by KPMG for the MCA in 2011 identified that the MR(SD)A was amended 27 times between 2004 and 2011 (Figure 6). Over that time, the volume of pages increased by 49 percent from 192 to 286 pages. The incorporation of matters relating to extractive industries in 2010 (see below) added approximately 35 pages to the Act. Other Acts regulating the minerals industry also went through numerous amendments.<sup>11</sup>



In the 4 years since this report was produced, there have been at least annual amendments progressing through Parliament.

<sup>11</sup> KPMG, *A review of regulatory change affecting Victoria's mining sector*, 2011.

This continued piecemeal reform only serves to confuse both the regulator and the industries being regulated. Furthermore there are often policy and regulatory inconsistencies either within the one Act or between related Acts. An issue also identified in the Board of Inquiry 2014 report.

The second and third government submissions identify areas for improvements to the regulatory regime governing mineral operations. The submissions confirm that primary obligation to manage risk at a site rests with the duty holder.

One statement stands out - *“Managing risks, their likelihood and impact is a dynamic process. Risk cannot be eliminated.”*<sup>12</sup> This is often misunderstood by legislative drafters and communities and legislation can often seek to prescribe a specific way to manage risk as though all risks are equal and manifest themselves identically in all circumstances.

Furthermore the submission acknowledges: *‘There is a potential risk that “when a crisis occurs, the response can revert too quickly to norms of increased enforcement and traditional prescriptive approaches, because the risk exposure for regulators is perceived to have become unacceptably high and consequently that risk-based regulation has failed”.*<sup>13</sup> A reactive approach can be amplified by public pressure *“reflecting disproportionate perceptions of risk beyond what an objective assessment would show”.*<sup>14</sup>

The minerals industry was pleased that the Board of Inquiry in their final report, rather than reacting to an incident and recommending further piecemeal regulatory reform, acknowledged the foundations of risk management and the responsibilities of the Duty Holder and Regulator and the improvements required. The board recommended that the “State:

- bring forward the commencement date of s.16 of the Mineral Resources (Sustainable Development) Amendment Act 2014 (Vic), to facilitate the requirement that approved work plans specifically address fire prevention, mitigation and suppression
- acquire the expertise necessary to monitor and enforce compliance with fire risk measures adopted by the Victorian coal mining industry under both the mine licensing and occupational health and safety regimes”.<sup>15</sup>

Whilst legislation for the first recommendation is now in place, the industry has seen no evidence that the required expertise has been acquired.

### **Mine Site Rehabilitation**

Rehabilitation is a complex issue that is considered prior to mineral extraction and further evolves over time with mine development. Given that mines can be very long lived, options for rehabilitation and final land form post mine closure will also evolve with operational requirements, expansion, community expectation, geological knowledge and government requirements. Each site has unique attributes and a ‘one-size-fits-all’ approach is not possible. The specific geology in the Latrobe Valley does not allow for rehabilitation techniques used for harder coals and metalliferous. Numerous ‘ideas’ for rehabilitation of these mines have been proposed by third parties over the years that would simply not work; such as repurposing the voids for townships or industrial landscapes.

It is important that discussion around rehabilitation is based on international leading practice methods and that are suitable to the underlying geological and landscape conditions. All recommendations regarding rehabilitation must be sensible, workable and economically feasible in the Australian context.

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<sup>12</sup> Victorian Government, *second submission to the Board of Inquiry*, June 2014, p42.

<sup>13</sup> D Peterson and S Fensling, *Risk-based regulation: good practice and lessons for the Victorian context*, paper presented at the Victorian Competition and Efficiency Commission Regulatory Conference, Melbourne, 1 April 2011.

<sup>14</sup> Better Regulation Commission, [Risk, responsibility and regulation – whose risk is it anyway?](#), 2006.

<sup>15</sup> [Hazelwood Mine Fire Inquiry Board of Inquiry Report](#), 2014

Some submissions to the 2014 Inquiry appeared to view rehabilitation as a simplistic, easily completed aspect of mine management and a tool that can be used in isolation to manage fire risk. Rehabilitation is just one risk management tool. It was pleasing therefore that the Board of Inquiry report stated:

*“While rehabilitation is a routine method of covering exposed coal that could be used as a fire prevention method, there are various factors that make progressive rehabilitation a complex, costly and time consuming exercise.”<sup>16</sup>*

Focusing on one risk management tool to manage a specific risk can have the undesirable effect of raising the risk profile in other aspects of a mining operation. Care must be taken to ensure that an operator can manage a suite of risks holistically and have systems in place that adapt to changes in risk profiles across an operation.

The MCA is currently developing a booklet of leading practice mine rehabilitation/closure case studies to improve community understanding of mine rehabilitation and demonstrate industry’s commitment and performance on rehabilitation and post mining land uses. This booklet will be provided to the Inquiry once finalised.

The minerals industry is working closely with the Australian Government on the update to the internationally successful Leading Practice Sustainable Development Program for the Mining Industry.<sup>17</sup> The leading practice handbooks produced under the program aim to assist industry professionals. The update includes both the mine rehabilitation and closure handbooks.

### **Rehabilitation Bonds**

Rehabilitation bonds or financial sureties are required under state law prior to the commencement of exploration or mining.

There are a range of models across Australia that provide this financial surety for mine closure and rehabilitation. Notwithstanding the assurance to the community that government monies will not be required to adequately rehabilitate a mine site, bonds result in companies taking on a significant financial burden upfront, long before any rehabilitation is required.

A bank guarantee entered into by a company is the most common method to ensure sufficient funds are available in the case of non-compliance, insolvency, financial difficulty or early closure, and the government is left with the rehabilitation burden. Bank guarantees are costly to maintain (2-3 per cent per annum), lock up capital and can impact on a company’s further borrowing capacity. In addition, whilst these funds are locked up, further funds are required to actually undertake the rehabilitation works. This is inefficient for the operator, as well as for the wider economy since assets are quarantined for the duration of the project rather than producing income. Premiums paid in bank guarantees are not refundable and do not contribute to tangible environmental benefits.<sup>18</sup>

A bond calculator was introduced in 2007 with costs imbedded in the calculator assuming rehabilitation would be undertaken by a third party (i.e. assuming a company would default on its requirements).

A review of rehabilitation bonds has been underway since 2009 with the release of an issues paper by the former Department of Primary Industries. Industry submitted that system assumes a 100 per cent failure rate and doesn’t acknowledge a company’s risk profile, assets, financial stability, management stability, historical record of rehabilitation and/or previous performance. Industry further submitted that alternatives to bank guarantees should be made available (company bonds, term deposits, security bonds, cash bonds).

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<sup>16</sup> Ibid, p21

<sup>17</sup> Australian Government, [Leading Practice Sustainable Development Program for the Mining Industry](#), Department of Industry and Science, 2006

<sup>18</sup> Victorian Government, *MR(SD)A Review 2 discussion paper 5 Rehab Bonds*, 2011.

In 2011 work commenced on designing a new rehabilitation bond model. Guiding Principles and a range of models were proposed. An assessment of financial surety options was undertaken.

This work fed in to the Economic Development and Infrastructure Committee of Parliament Inquiry into Greenfields Exploration and Mineral Development in Victoria (EDIC)<sup>19</sup> which made the following recommendation:

*Recommendation 15: That the Victorian Government reviews the current rehabilitation bond system in comparison with alternative existing mechanisms, taking into account the end-of-mine-life environmental legacies, whilst honouring obligations for rehabilitation of specific sites.*

The former Government subsequently legislated to:

- introduce a start-up bond scheme
- implement a cash bond system
- introduce a late bond lodgement penalty.

Further work to deliver on these initiatives is required but has unfortunately stalled.

The minerals industry continues to advocate that bonds:

- be applied in a consistent manner across all sites, irrespective of size or ability to pay
- be sufficient to cover the cost of rehabilitation to the agreed standard at any point in time, not final requirements
- be assessed on a site-by-site basis
- encourage progressive rehabilitation
- allow for unforeseen phenomena on a probabilistic basis
- be a secure financial instrument
- do not allow or cross subsidise poor performers.

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<sup>19</sup> Economic Development and Infrastructure Committee, [Inquiry into Greenfields Exploration and Mineral Development in Victoria](#), 2012.