

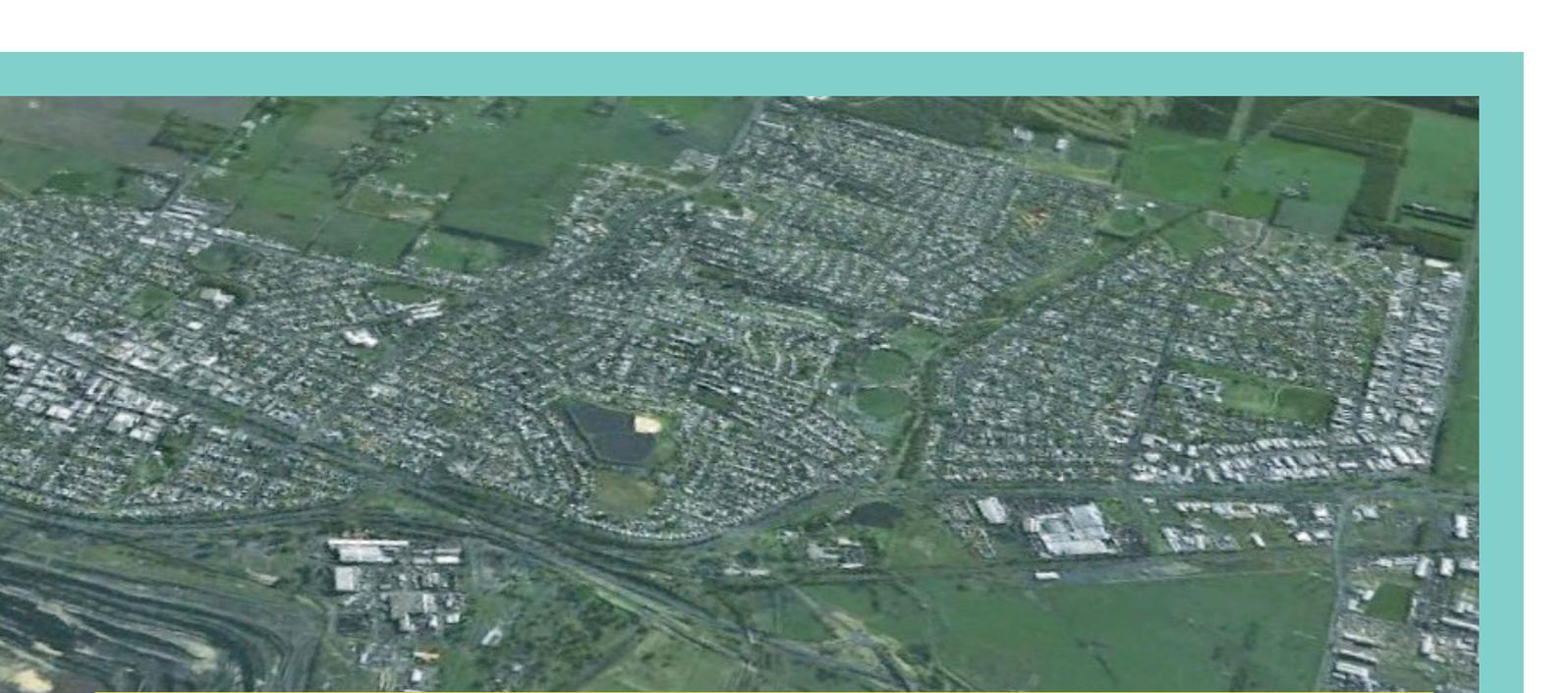
**2014**



# PREVENTING THE PREVENTABLE

Policy Options for Accelerating Coal Mine  
Rehabilitation and Creating Jobs in the  
Latrobe Valley





# EXECUTIVE SUMMARY

The 2014 Hazelwood mine fire was one of the worst environmental and public health disasters in Victoria's history. The fire had serious social, environmental and economic implications. The total financial cost of the fire was estimated by the Hazelwood Mine Fire Inquiry to be over \$100 million. The Inquiry found the fire was entirely preventable, and heard evidence that mine rehabilitation is the most effective way of preventing coal mine fires.

Progressive rehabilitation of coal mines protects communities from the risk of catastrophic mine fires while also reducing the community health impacts of mining operations.

Unrehabilitated mines also represent a significant financial risk to Victorian taxpayers should mine operators fail to fulfil their rehabilitation responsibilities, leaving the state government to bear the cost of making the site safe.

Works involved in mine rehabilitation across the Latrobe Valley would create around 450 long-lasting skilled and unskilled jobs, providing a billion-dollar economic stimulus to a region in need of a more diverse economy.

The carrying out of rehabilitation works by mine operators is already a condition of all coal mining licenses, but these works are not happening with sufficient urgency. These delays leave the community exposed to fire and health risks and the broader public exposed to the on-going financial and environmental risks.

Existing rehabilitation bonds for all Victorian coal mines are too low to provide sufficient incentive for mine operators to fulfil their obligations, and the Victorian Government has exerted no regulatory pressure to accelerate rehabilitation.

In this report, we identify the three steps required to address this issue:

1. Determining the scale of the rehabilitation task
2. Accelerating rehabilitation of worked-out coal faces to reduce fire and health risks
3. Ensure rehabilitation bonds match the rehabilitation liability to reduce the public financial risk

To a large extent, the legislative and regulatory powers to achieve these already exist. Two key policy solutions include:

1. Increasing rehabilitation bonds to appropriate levels. These bonds should be received as cash bonds (currently they are bank guarantees), with the government using the interest payments on the bonds to support regional development and transition initiatives in the Latrobe Valley and the wider Gippsland region.
2. Raise the rate of coal royalties, with the additional royalties from each mine being put into separate funds. These funds can then be drawn on by mine operators to recoup money spent on progressive rehabilitation works.

Full details on these policy proposals can be found within the report.

Environment Victoria is seeking both a clear commitment to accelerate rehabilitation efforts and the views of all candidates standing at the 2014 State election in the seat of Morwell on the policy measures recommended within this report.

## 1. Overview of the Hazelwood mine fire and the benefits of mine rehabilitation

The fire in the Hazelwood coal mine in early 2014 covered the town of Morwell and the surrounding area in toxic coal ash for 45 days. It cost the Victorian Government over \$32 million to bring the fire under control (not taking into account the volunteer labour of the CFA), and the overall cost of fire to the Government, the community and to mine operator GDF Suez has been estimated at over \$100 million.<sup>1</sup> The additional cost to the long-term health of the community will, tragically, not be known for many years to come.

The only sections of Hazelwood's northern batters that did not burn during the mine fire are those that had been rehabilitated between 2008 and 2012.<sup>2</sup> This was a powerful demonstration of the role that mine rehabilitation can play in protecting communities from dangerous mine fires.

The benefits of rehabilitation extend beyond reducing the risk of fire. There are significant co-benefits to the mining community, through job creation and the reduction of toxic coal dust, and to the wider public and government, through a reduced financial risk to the public purse in the event of mine operators failing to complete their rehabilitation obligations.

Unfortunately, the Hazelwood Mine Fire Inquiry made no recommendations on mine rehabilitation despite hearing extensive evidence of its benefits.

However, there is still an onus on the state government to act in the public interest and deliver improvements to mine rehabilitation policy to ensure mining communities are protected and that they are receiving the benefits of accelerated rehabilitation.

## 2. What is mine rehabilitation?

At its simplest, mine rehabilitation is the process of repairing the damage caused by mining activity. This can involve simply making the site safe and stable, but global best-practice strives to create a landscape that can support future uses of the land – whether that is returning it to an agricultural landscape or identifying new beneficial uses.<sup>3</sup>

At a practical level, coal mine rehabilitation typically involves flattening the steep sides of the mine, covering exposed coal with soil and clay and re-vegetating the area with trees and grasses.

Community consultation is a key aspect of rehabilitation. As they are the most likely future users of the land, it is essential that the community be involved in decisions about how the land is rehabilitated and for what final purpose.

## 3. How is rehabilitation regulated currently in Victoria?

Rehabilitation of Victorian coal mines (and other mines) is primarily regulated by Part 7 of the Mineral Resources (Sustainable Development) Act 1990 ("the MRSD Act"), in conjunction with the conditions of each operator's mining licence.

Key sections of the MRSD Act include:

- Mine rehabilitation needs to be carried out in accordance with the conditions of the mining licence (s78(2))
- Mine operators need an approved rehabilitation plan (ss78(1) and 79)
- The Minister can require mine operators to assess their rehabilitation liability (s79A)



- A rehabilitation bond is required (s80(1)) and the Minister may require an additional bond if the existing one is deemed insufficient (s80(4))
- If the mine operator refuses to carry out rehabilitation works, the Minister may engage others to carry out the works ss83(1)-(3) and then recover costs later s83(4)

Coal mines in Victoria are required by their mining licences to have a plan for “final rehabilitation” (i.e. once the mine is no longer operational), as well as to conduct “progressive rehabilitation” while the mine is still active. In addition to the work specified in the rehabilitation plans, further work must be carried out if the operator is directed to do so by the Department or a Mines Inspector.

Neither the legislation nor the associated regulations set any more specific timelines for when rehabilitation should happen. It is left to mine operators to propose timelines in their Rehabilitation Plans (which form part of the broader Work Plan), which are then approved by Government regulators.

Unlike the other two major mines in the Latrobe Valley, the operators of the Yallourn mine are required by their

mining licence to publicly report on the annual progress of their rehabilitation work.<sup>4</sup> Because public confidence in rehabilitation is critical, this requirement for public reporting should be extended to all other coal mines in Victoria.

Mine operators are also required to lodge a “rehabilitation bond” with the Government. This bond serves as an incentive for mine operators to carry out progressive rehabilitation, and to provide financial security that the public will not bear the cost of an abandoned unrehabilitated site. If the site is not ultimately left adequately rehabilitated post-mining, the bond is forfeited by the mine operator and kept by the Government.

Rehabilitation bonds for each of the three Latrobe Valley mines were set in the 1990s at “interim” amounts of \$15 million. The bond amounts have not been revised since being set, despite significant expansion of the mines, and a commensurate increase in the total rehabilitation liability, over the past 20 years.

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1 Report of the Hazelwood Mine Fire Inquiry, p.222

2 Report of the Hazelwood Mine Fire Inquiry, p.188

3 Australian Government Department of Industry, Tourism and Resources, “Mine rehabilitation: Leading practice sustainable development program for the mining industry,” 2006, p.2.

4 Mining Licence 5003, Schedule of Conditions, cl 18(3), registered 25 January 2002.

## 4. The benefits of coal mine rehabilitation

A recent survey conducted by the CSIRO on attitudes to mining amongst the Australian public, including mining communities, found strong agreement that mine rehabilitation is important.<sup>5</sup> In addition to ultimately returning a mine to safe, stable and usable landform, mine rehabilitation confers many benefits on both the local mining community and the broader public.

### 4.1 Fire prevention

For coal mine fires, as with most undesirable outcomes, prevention is better than cure. During the public hearings of the Hazelwood Mine Fire Inquiry, experts agreed that the most effective way of preventing mine fires is to properly rehabilitate the area.

Professor David Cliff said during his evidence that rehabilitation is “the only way of ensuring that such events cannot occur”<sup>6</sup> and that “if the coal can’t be exposed to air, it can’t burn; it’s as simple as that.”<sup>7</sup>

GDF Suez’s Technical Services Manager indicated that the best solution for fire prevention is rehabilitation, combined with a fire sprinkler system in areas that can’t be rehabilitated.<sup>8</sup>

Fire expert Roderic Incoll said in his report to the Hazelwood Inquiry that:

*“Anything less than 100% spray coverage availability during hot dry windy conditions, or full earth covering of the Northern Batters is inviting a recurrence of the incident with similar outcomes. For this reason, the situation must be permanently remedied.”*<sup>9</sup>

As a fire prevention measure, rehabilitation has important benefits over alternatives such as water sprays. Once completed, rehabilitation does not rely on decisions by people to activate it, nor does it rely

on the supply of electricity or water which may fail at crucial moments.

A CSIRO and Bushfire Cooperative Research Centre report into future bushfire danger in south-eastern Australia shows that the number of days with a Fire Danger Index of 50+ is set to increase by as much as 70% by 2050, with more than 40 days per year.<sup>10</sup> Measures taken now to reduce the risks of future fires in the Latrobe Valley mines should be a community safety priority.

### 4.2 Job creation and broader economic benefits

Mine rehabilitation is a labour-intensive process, meaning there is great potential for a wide range of skilled and unskilled long-term jobs to be created. With the vast scale of the three Latrobe Valley mines, full rehabilitation of the open cuts could provide decades of employment.

The US Department of Interior’s Office of Surface Mining Reclamation and Enforcement has a comprehensive program for dealing with abandoned mine land. The Office estimated that approximately \$USD 370 million (\$AUD 411 million) spent on mine rehabilitation in 2010 created over 8500 jobs in that year alone.<sup>11</sup> The broader additional economic activity flowing from this work amounted to \$USD 1.06 billion.<sup>12</sup>

Extrapolating these employment figures to the Victorian rehabilitation task requires an approximation of the likely cost of rehabilitating the three large coal mines in the Latrobe Valley. During the Hazelwood inquiry, GDF Suez gave evidence that they have budgeted \$81 million for their final rehabilitation works.<sup>13</sup> It is not clear whether this is intended to include rehabilitation of the mine and the power station or just the mine. It should also be noted that this \$81 million for Hazelwood involves only partial rehabilitation of the land, with the majority of the pit to be flooded and converted over decades into a lake. For this reason, and because

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5 K Moffatt, A Zhang, N Boughen, “Australian attitudes toward mining: Citizen survey – 2014 results”, CSIRO (2014), p6. EP 146276

6 Hazelwood Mine Fire Inquiry, Transcript of Evidence, Day 13, p.2110.

7 Hazelwood Mine Fire Inquiry, Transcript of Evidence, Day 13, p.2111.

8 Hazelwood Mine Fire Inquiry, Transcript of Evidence, Day 13, pp.1981 & 2021.

9 Report of the Hazelwood Mine Fire Inquiry, p202.

10 CSIRO/Bushfire CRC and Australian Bureau of Meteorology, “Climate change impacts on fire-weather in south-east Australia”, pp.5 & 26.

# Table 1: Job creation & wider economic benefits of mine rehabilitation

	USA†	Latrobe Valley low-cost case ‡	Latrobe Valley medium-cost case ‡	Latrobe Valley high-cost case ‡
<b>Expenditure</b> * millions of AUD	\$411m	\$243m	\$421m	\$600m
<b>Total job years created</b>	8578	5076	8789	12523
<b>Jobs per year</b> Over 20 years	429	254	439	626
<b>Economic benefit</b> Billions of AUD	\$1.18b	\$0.70b	\$1.21b	\$1.72b

\* Using an exchange rate of \$0.90 † Actual expenditure and job creation ‡ Projected expenditure and job creation

mining companies regularly downplay their likely rehabilitation costs, we will treat \$81m as a low-cost case. Across three mines of comparable size, that equates to a minimum of \$243 million.

Figures used by the Queensland Government estimate the cost of reshaping and capping high risk material (such as coal) at \$136,000/hectare.<sup>14</sup> This cost does not include the cost of accessing any externally sourced topsoil or other materials, nor does it include revegetation works. For a pit roughly 1000 hectares in size, this leads to an estimate of \$136 million. Additional works to rehabilitate other areas around the mine pit, such as overburden dumps, and to complete revegetation works could lead to estimates around \$200 million per mine, or \$600 million across the Latrobe Valley. We will treat this as the high-cost case. A medium-cost case is taken as the mid-point between high and low – total expenditure of \$421 million.

Table 1 shows how this level of expenditure could affect the economy of the Latrobe Valley.

Assuming comparable levels of job creation per dollar as observed in the USA and spreading the work over a twenty year period, this equates in the medium-cost case to 439 direct jobs that last for two decades with

total economic impact in the region of \$1.21 billion. The high-cost case shows the potential for over 600 jobs and \$1.7 billion in economic impact.

Exact rehabilitation requirements can vary vastly from site to site, but this analysis confirms that rehabilitation of the Latrobe Valley mines is likely to create significant employment in the local area. As part of supporting a just transition for workers in the Latrobe Valley, as many as possible of these jobs should be reserved for local residents, rather than contractors from elsewhere.

The types of jobs that are typically involved directly in coal mine rehabilitation include:

- Environmental and technical managers
- Engineers
- Geologists
- Biologists
- Technicians
- Surveyors
- Heavy equipment operators
- General labourers.<sup>15</sup>

11 US Department of Interior, Economic Contributions, 21 June 2011, p.26.

12 US Department of Interior, Economic Contributions, 21 June 2011, p.26.

13 Report of the Hazelwood Mine Fire Inquiry, p190.

14 Rehabilitation Cost Calculator, Queensland Government. Available here: <http://www.business.qld.gov.au/business/running/environment/licences-permits/financial-assurance-rehabilitation/financial-assurance-security-deposit>

15 Office of Surface Mining Reclamation and Enforcement, "Annual Report 2010-11: Reclaiming Oversight, Reclaiming Communities"

### 4.3 Improved health for communities

There has been little quantification in Victoria of the health consequences of living next to coal mines and power stations, but a 1996 study by the Victorian Department of Health revealed that the Latrobe Valley had worse health outcomes than other parts of the state.<sup>16</sup>

Latrobe Valley coal mines currently have large surface areas of exposed coal. This exposed coal is responsible for the high levels of fine particulate matter that emanates from coal mines. National Pollutant Inventory data shows that coal mining and coal power stations are the two largest point source contributors to PM2.5 pollution in Victoria.<sup>17</sup>

Speeding up rehabilitation efforts will reduce the total surface area of exposed coal, therefore reducing the toxic fine particulate matter that affects residents in the towns of the Latrobe Valley. The National Pollutant Inventory notes that, for these particulates, “there is no threshold at which health effects do not occur.”<sup>18</sup>

In the US, the Office of Surface Mining Reclamation and Enforcement have estimated that 80,000 hectares of unrehabilitated mine land is creating \$USD 3.9 billion in health and safety problems.<sup>19</sup> An extrapolation of these figures, across the approximately 3000 hectares of deep open cut mines in the Latrobe Valley, equates to health and safety impacts of almost \$150 million. The state government bears many of these costs through increased hospital bills and reduced economic activity.

### 4.4 Avoids public exposure to financial liability

In addition to missing out on the economic and health benefits listed above, a failure to accelerate progressive rehabilitation could expose the public to significant financial liability if a mining company does not deliver on its rehabilitation obligations.

Rehabilitation bonds, lodged by the company with the Government, are intended to cover the likely costs of full rehabilitation,<sup>20</sup> but existing bonds are likely to

be an order of magnitude too low.<sup>21</sup> As noted above, rehabilitation of the Hazelwood mine could cost between \$80-200 million, yet the bond is only \$15 million. This creates little incentive for the mine operator to conduct progressive rehabilitation.

Financially, it could make more sense for the company to sacrifice its bond and abandon the mine without carrying out rehabilitation works. This leaves the community and state government with a potentially massive financial burden of cleaning up the site to ensure it is safe and able to contribute to the future prosperity of the community.

While the legislation allows for the state government to try to recover any costs it incurs in carrying out rehabilitation (s80(4)), in practice it will be very difficult. The risk of recovery is shifted to the state government, who must bring legal action to find company assets in the jurisdiction that can be claimed against.

The only guarantee for the state to avoid public expense is to ensure that rehabilitation bonds match the assessed rehabilitation liability for each mine.

## 5. Is rehabilitation happening now?

During the Hazelwood Mine Fire Inquiry, it was revealed that GDF Suez proposes to undertake only very limited progressive rehabilitation at the Hazelwood mine between now and 2028<sup>22</sup> – just four years before the scheduled closure of the mine and power station in 2032. This is unacceptably slow and provides no comfort to a community that is rightly concerned about whether future fires or health impacts will be avoided.

In the past five years, only around five hectares of land has been rehabilitated per year at Hazelwood,<sup>23</sup> although GDF Suez has committed to rehabilitating an additional 20 hectares of the northern batters as a response to the fire.<sup>24</sup> 20 hectares represents only about 2% of the total area of the open cut.

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16 Report of the Hazelwood Mine Fire Inquiry, p250-251.

17 Business Spectator, “New data reveals coal’s health pollutant risk”, 3 June 2014. Available here: <http://www.businessspectator.com.au/news/2014/6/3/science-environment/new-data-reveals-coals-health-pollutant-risk>. Note that in the National Pollutant Inventory for PM2.5, there is no disaggregation of the relative contributions of coal mining and coal burning in Victoria. It is only provided as a combined total of each mine and its associated power station.

18 National Pollutant Inventory, Fact Sheet for Particulate Matter (PM10 and PM2.5). Available here: <http://www.npi.gov.au/resource/particulate-matter-pm10-and-pm25>

19 US Department of Interior, Economic Contributions, 21 June 2011, p.26.



In Loy Yang's only publicly available work plan, targets for annual rehabilitation are only for 3-5 hectares of the mine per year.<sup>25</sup>

At Yallourn mine, 70 hectares were rehabilitated in 2012, but the majority of this was overburden dumps rather than exposed coal faces.<sup>26</sup>

To the extent that rehabilitation has taken place at the Latrobe Valley open cuts, it has largely been outside the mine pits themselves, with the exception of the Yallourn Town Field. This fails to address the fire risk, the health risk and the financial risk to the public. The limited scope of the rehabilitation means the vast majority of jobs in rehabilitation have not yet been created.

Further, the longer rehabilitation of exposed coal faces is delayed, the greater the risk that it will not happen at all.

As noted by mine rehabilitation experts at Environmental Earth Sciences, "in the mining industry, there is a need for a stronger focus on closure during the years when the mine is most profitable"<sup>27</sup> – that is, while the power station is still operating and generating revenue.

## 6. Why is extensive rehabilitation not taking place?

Only small amounts of rehabilitation work are happening, for two main reasons:

1. The rehabilitation bonds are too low, so mine operators have little incentive to meet their rehabilitation obligations ahead of closure; and
2. The Government is exerting no regulatory pressure to accelerate rehabilitation, primarily because it has not fully accounted for the costs of delayed rehabilitation.

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20 "Establishment and management of rehabilitation bonds for the mining and extractive industries", Department of State Development, Business and Innovation (2014). Available here: <http://www.energyandresources.vic.gov.au/earth-resources/licensing-and-approvals/minerals/guidelines-and-codes-of-practice/exploration-and-rehabilitation-of-mineral-exploration-sites>

21 Report of the Hazelwood Mine Fire Inquiry, p190.

22 Report of the Hazelwood Mine Fire Inquiry, p186.

23 Report of the Hazelwood Mine Fire Inquiry, p189. The majority of rehabilitation work that has been completed has been the "easy wins" of flat areas outside the mine's pit (see page 188).

24 Report of the Hazelwood Mine Fire Inquiry, p228.

25 Loy Yang Power Ltd, "Mining Licence Application – Work Plan Submission, Part 2: Rehabilitation Plan". Victorian Government Gazette, 8 May 1997, No s53, p35.

26 EnergyAustralia Yallourn, "Social and Environmental Performance Summary 2012".

27 Environmental Earth Sciences, "Mine Closure and Waste: Responsibilities and Liabilities", Discussion Paper, September 2012, Philip Mulvey, Alan Baker and Peter Scott, p.6.

## 7. What does the Government need to do?

Mine fire risk and rehabilitation has become a pressing public policy issue.

Environment Victoria is seeking a commitment from all parties and candidates contesting the 2014 State Election to release a policy that will:

1. Determine the scale of the rehabilitation task
2. Act to urgently accelerate rehabilitation of exposed coal faces in worked-out areas of all coal mines in the state, creating hundreds of long term jobs and reducing risks to the community;
3. Ensure adequate provisions are in place to guarantee Victorian taxpayers are not burdened by uncompleted rehabilitation works.

## 8. Policy solutions for accelerating coal mine rehabilitation

There are a number of mechanisms by which the Victorian Government can address this situation.

The Mining Licences for each mine allow the Inspector of Mines or the Department to direct mine operators to carry out any rehabilitation work that the Inspector or Department thinks is necessary. This can be over and above the operator's commitments in their rehabilitation plans.

The Victorian Government could consider (through the Department or Inspector of Mines) directing coal mine operators to complete the rehabilitation of all worked-out coal faces in the next five years, starting in the next 12 months with areas within 2 km of residential areas.

While this approach could be relied on in specific circumstances, more sophisticated policy options are available.

### 8.1 Increasing the rehabilitation bond to create an appropriate incentive

The Department of State Development, Business & Innovation are explicit in stating that the purpose of the rehabilitation bond is to cover the full rehabilitation liability for a given mine. To create an appropriate incentive for mine operators to meet their rehabilitation obligations, these bonds need to be increased to reflect the actual likely costs of full rehabilitation.

The Minister has the power under s.79A of the MRSD Act to ask operators to estimate their rehabilitation liability. This request should be made immediately. Simultaneously, DSDBI needs to fast-track its review of bond calculation methodology, and then conduct its own assessment of likely mine rehabilitation costs. Both the private and public assessments must be accompanied by an independent mine auditor's report verifying the accuracy of each assessment. This process should be completed within 12 months.

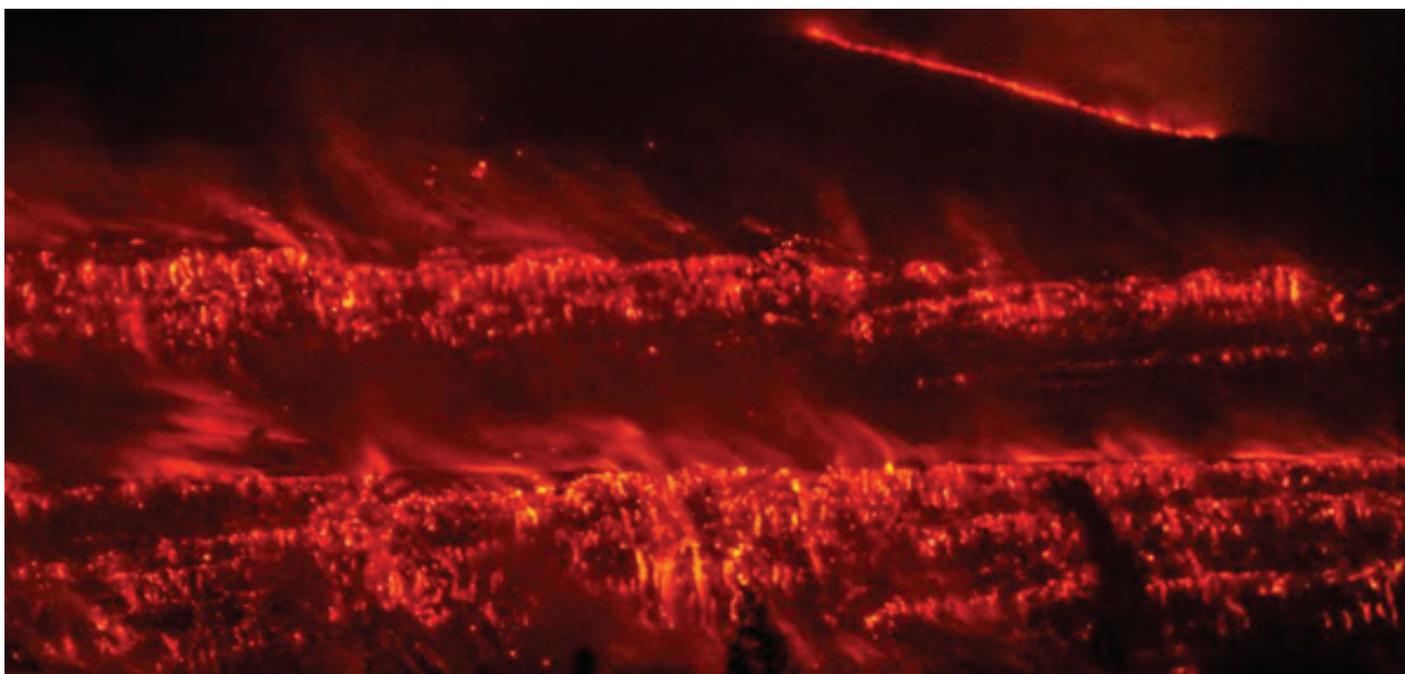
Upon completion of this process, additional bonds should be required of each mine operator (as permitted under s.80(4) of the MRSD Act) to bring the total amount held by the Government up to the level of the assessed liability. For example, if the calculated liability is \$150 million and the current bond is \$15 million, an additional bond of \$135 million should be lodged immediately.

The additional bonds should be required as cash bonds, not as bank guarantees as currently used.

This means the Government would hold the cash amount of the bonds. The interest on these amounts should be used to drive regional development and economic transition programs in the Latrobe Valley and the wider Gippsland region.

Bonds should be reviewed every five years. This ensures that, as rehabilitation progresses, there is eventually an opportunity for bonds to be lowered and returned to the operator as the remaining liability declines.

➔ **ACTION ASSOCIATED WITH THIS APPROACH:** Review the rehabilitation bonds of



existing coal mines, and require additional cash bonds to be lodged to cover the full rehabilitation liability of each mine. Interest received by the Government on these bonds is to be used to support economic diversification of the Latrobe Valley.

## **8.2 Create a mine-specific rehabilitation fund based on increased coal royalties**

Royalties currently received by the Victorian Government for extracted coal is relatively low by comparison to other Australian states. Evidence given by the Department at the Hazelwood Inquiry indicated that the Government receives \$50-60 million annually in combined royalties from the three Latrobe Valley mines.<sup>28</sup> Exact royalty rates are based on the energy content of the coal, but equate to approximately \$1 per tonne.

We propose a mechanism by which each mine has its royalty rate increased. The additional money raised from this new royalty should be put into a dedicated, mine-specific rehabilitation fund. If rehabilitation works are completed in a given year, the operator can apply to recover the costs of that rehabilitation work from the fund. If no rehabilitation works are completed, the fund continues to accumulate with the additional royalties.

For example, if the fund for one mine receives \$7 million per year in additional royalties, and the operator completes \$5 million worth of rehabilitation, the operator can apply to recover \$5 million from the \$7 million that is in the fund. If the work is not completed,

the full amount of the additional royalty remains held by the government as a kind of bond.

Each mine's fund, if not drawn upon, would continue to grow until it reaches the estimated remaining rehabilitation liability. Beyond that amount, the additional royalties should be diverted towards regional development and economic diversification programs in the Latrobe Valley. For example, if the total cost of a mine's rehabilitation is estimated to be \$100 million, once the additional royalties have boosted the fund to that amount, the money would then go to benefit the region in other ways.

If works are carried out, the fire, health and financial risks are all reduced. If the works are not carried out and the fund is allowed to grow, the public financial risk is reduced, but the community remains exposed to the fire and health risks. In that situation, to ensure the fire and health risks are also mitigated, the Government could periodically use its power to compel mine operators to carry out specific rehabilitation projects (as noted above).

Alternatively, to create an incentive for mine operators to actually carry out rehabilitation works (thus reducing the fire and health risks to communities), the rate of additional royalties could be reviewed on regular 5-yearly cycles. If rehabilitation works have not been conducted, the royalty rate could increase further. If rehabilitation works have been conducted, the additional royalty rate could decrease, acknowledging the efforts the operator has made to reduce risks to the public.

We propose that the initial increased royalty rate be

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<sup>28</sup> Hazelwood Mine Fire Inquiry, Transcript of Evidence, Day 11, p.1585.

set so that ten years of accumulation would result in a fund commensurate in size with a revised rehabilitation liability.

For example, if a mine's current bond is \$15 million and its calculated rehabilitation liability is \$100 million, the rate of additional royalties should be set to accumulate the outstanding \$85 million within ten years – an additional \$8.5 million per year. For a mine extracting 20 million tonnes per year (roughly equivalent to \$20 million in existing royalties to Government), this would correspond to a 42.5% increase in royalties.

It should be emphasised that the amount of additional royalties is effectively recoverable by the mine operator if they choose to carry out rehabilitation works that they are legally required to perform.

#### → ACTION ASSOCIATED WITH THIS

**APPROACH:** Increase the royalties from brown coal to rates that would accumulate to match a revised bond within 10 years. Establish separate funds to receive the royalties from each individual mine and establish a methodology for auditing rehabilitation works and for returning paid royalties to the mine operators after the completion of works. The Department should also develop criteria for assessing success of any rehabilitation works, to be reviewed at five-yearly intervals. Methodology should also be determined for adjusting the additional royalty rate on the basis of the extent and success of rehabilitation works.

- The remit of the existing Technical Review Board should be expanded to include general mine rehabilitation, rather than limiting it to rehabilitation that deals with mine stability.
- Each mine operator should publicly disclose the amount it has budgeted for progressive and final rehabilitation works, to give the community confidence that the work will take place.
- Over the next five years, each mine operator should engage in in-depth community engagement to discuss possible future land uses of the mines, to allow final rehabilitation plans to reflect community aspirations for the future of the area.

## 9. Additional initiatives to boost community confidence

The following measures would provide further assurances to local communities that rehabilitation is being progressively implemented to an appropriate standard:

- Mining licences for all coal mines should be amended to require clear annual public reporting of rehabilitation works.



## 10. Conclusion

Since the Hazelwood mine fire, it has been clear that there can be no more “business as usual” in how coal mining is regulated in Victoria. The risks are simply too great.

Accelerating mine rehabilitation has the the potential to address the fire, health and financial risks associated with the state’s brown coal mines, creating a significant local economic stimulus, in the form of hundreds of long-lasting and diverse jobs.

With both mine safety and employment opportunities emerging as key issues in the key seat of Morwell at the 2014 Victorian election, strong policies on mine rehabilitation represent a win-win opportunity.

Within the context of the existing regulatory and legislative framework, we have identified two practical,

effective and flexible policy solutions that will reduce the risks of coal mining and create hundreds of jobs while providing new streams of support to the community of the Latrobe Valley.

We encourage all parties and candidates contesting the 2014 State Election to take this opportunity.



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