

PART NINE
ALTERNATIVE FINANCIAL
ASSURANCE MECHANISMS

PART 9 ALTERNATIVE FINANCIAL ASSURANCE MECHANISMS

9.1 OVERVIEW

Term of Reference 10(c) requires the Board to inquire into, report on and make any recommendations it considers appropriate:

Having regard to the rehabilitation liability assessments that have been or will be reported in 2015 by the operators of each of the Hazelwood mine, the Yallourn mine, and the Loy Yang mine, as required by the *Mineral Resources (Sustainable Development) Act 1990* (Vic), and to the outcome of the Rehabilitation Bond Review Project (Bond Review Project):

- c. any practical, sustainable, efficient and effective alternative mechanisms to ensure rehabilitation of the mines as required by the *Mineral Resources (Sustainable Development) Act 1990* (Vic).

The Board heard that the bond system has been repeatedly questioned and considered. The Mining Regulator and the Department of Economic Development, Jobs, Transport and Resources (DEDJTR), have obtained expert opinions about the system and reforms have been proposed. The Board heard evidence from the Environment Protection Authority (EPA) about assurance mechanisms implemented under the *Environment Protection Act 1970* (Vic) (Environment Protection Act).

The Board retained experts from Accent Environmental to provide opinions on whether there are alternative financial assurance mechanisms that could be employed to ensure that the Latrobe Valley mines are rehabilitated pursuant to the *Mineral Resources (Sustainable Development) Act 1990* (Vic) (Mineral Resources Act). Accent Environmental provided a report to the Board titled *Hazelwood Mine Fire Inquiry: High-level assessment of alternative rehabilitation financial mechanisms* (Accent Environmental report). AGL Loy Yang retained Dr Robert Gillespie, Principal of Gillespie Economics, to provide his opinion on alternative financial assurance mechanisms.

This Part considers what alternative financial assurance mechanisms might be employed to ensure rehabilitation is carried out as required under the Mineral Resources Act.

9.2 STATE CONSIDERATION OF ALTERNATIVE FINANCIAL ASSURANCE MECHANISMS

In 2000, the Department of Natural Resources and Environment (as DEDJTR was then known) reviewed the rehabilitation bond policy in light of concerns about the commercial impact of bonds on industry (the cost of providing financial assurances was estimated as being between 0.37 per cent and 1.5 per cent of the face value of the bond), and the cost to government of setting and reviewing bonds. The review sought to identify new approaches that reduced the costs to industry and government wherever possible, while still guaranteeing the rehabilitation of mines and quarries.¹ It included the release of a 'discussion paper', dated April 2002, seeking stakeholder views on the type, setting and reviewing of rehabilitation bonds.²

In 2002, following consideration of submissions received in response to the discussion paper, analysis of departmental needs and state policy, the Department of Primary Industries (DPI, as DEDJTR was then known) released a 'position paper' articulating its conclusions.³ The position paper identified a number of principles that should inform policies on rehabilitation bonds, including that bonds:

- ensure that the cost of rehabilitation is borne by the mine operator
- cover the actual and foreseeable liability based on the works required by the approved work plan
- are reviewed as appropriate to ensure their adequacy
- encourage good environmental performance and progressive rehabilitation
- are secure, easily retrievable and applied consistently
- are assessed on a site-by-site basis
- are consistent with other interstate jurisdictions wherever practical.⁴

After releasing its position paper, DPI decided to develop new guidelines for the establishment of rehabilitation bonds, as well as a schedule of requirements for assessors. DPI also decided to establish an initial bond for proposed mining or extractive industry operations, to act as a starting point for later assessments. DPI's position was that the full rehabilitation liability should always be covered by the bond and be assessed on a case-by-case basis. In addition, mine operators should provide their annual rehabilitation liability using an independent assessor in accordance with the guidelines (except in the case of small mines), and costing should not be unnecessarily complex.⁵

In 2011, DPI again investigated alternative options for the bond system as part of its broader review of the Mineral Resources Act. It commissioned KPMG to conduct a review to identify the principles of a successful financial assurance model that provides security in the event that a mine operator fails to rehabilitate its land.⁶

KPMG identified 10 principles for a good security model:

- The system should reflect the fact that it is unlikely that all mine operators will fail to achieve their rehabilitation obligations.
- The system should avoid creating moral hazard (for example, the mine operator avoiding discharging rehabilitation obligations without penalty).
- The system should reward past good behaviour.
- The system should encourage future good behaviour and discourage future bad behaviour.
- The system should be based on risk management principles.
- The system should avoid cross subsidies (for example, exposing mine operators to the risk that they may not receive the full amount of their bond back, even where they have met their rehabilitation obligations).
- The system should attempt to avoid large and uncertain increases in the amount of financial assurance.
- The government should seek to manage its financial risks to minimise any budgetary impact.
- Any new model should, where possible, not materially increase the administrative burden for the State.
- Financial assurance should be readily converted into cash, as opposed to security being provided by personal property or operating equipment.⁷

KPMG stated that not all attributes will be met in any one model but that '[b]y changing the models slightly or using a combination, [DPI] and stakeholders can determine which system is appropriate for their purposes.'⁸

KPMG investigated six models that could be used in Victoria:

1. The current system—a rehabilitation bond.
2. Discounted performance bond system—a rehabilitation bond discounted to reflect past performance.
3. Government-owned site rehabilitation sinking fund system—a discounted rehabilitation bond that is refunded upon satisfactory compliance with rehabilitation obligations, together with non-refundable contributions into a statewide government rehabilitation sinking fund in an amount proportional to the operator's liability.
4. Industry-owned site rehabilitation bond pool system—a discounted rehabilitation bond that is refunded upon satisfactory compliance with rehabilitation obligations, together with refundable contributions into a statewide industry rehabilitation bond pool in the form of a performance bond as opposed to cash.
5. Predefined liability proportion performance bond system—a rehabilitation bond, with contributions to the bond made over the life of the mine based on two tracks. Where performance is in line with expectations, the contributions are smaller (track 1); however, if performance deviates from that expectation, contributions are immediately increased (track 2).
6. Insurance-based system—all mine operators are required to take out an insurance policy against the risk of default on their respective rehabilitation liabilities.⁹

KPMG described a 'common sinking fund' as one where all mine operators contribute to one fund, but which may bring about a cross-subsidy risk resulting in responsible mine operators 'footing the bill for those who have not met their rehabilitation obligations.'¹⁰ KPMG noted the benefit of a pooled fund is that there is unlikely to be a situation where all mine operators fail to rehabilitate and so the amount contributed to the fund will be less than the full amount of the rehabilitation costs.¹¹

KPMG measured each of the models against the 10 principles that it had identified for a good security model. None of the models satisfied all of the 10 principles. The models that satisfied the least number of principles were the discounted performance bond system and the insurance-based system.¹²

In 2012, the Victorian Parliament's Economic Development and Infrastructure Committee (EDIC) conducted an inquiry into greenfields mineral exploration and project development, which included consideration of rehabilitation bond levels. The final report of the inquiry states:

A commonly held view in submissions, particularly those from the extractives industry, was that rehabilitation bonds are considered deterrents to investment in mineral and extractive developments in Victoria.

...

In contrast, Environment Victoria's (EV) submission...strongly supported a review of mining and exploration rehabilitation bonds to ensure they accurately reflect rehabilitation costs.¹³

The EDIC inquiry report recommended that the State 'review 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.'¹⁴

In 2014, the Mining Regulator prepared a rehabilitation bond policy reform package, which recommends the introduction of a two-track bond model and cash bond model. The reform package does not apply to the Latrobe Valley mines.¹⁵

As noted in Part 8 of this report, Mr Luke Wilson, Lead Deputy Secretary of Agriculture, Energy and Resources at DEDJTR, told the Board that DEDJTR is obtaining advice from NERA Economic Consulting about potential bond systems; however that advice has been delayed.¹⁶

9.3 OPTIONS FOR ALTERNATIVE FINANCIAL ASSURANCE MECHANISMS

The Accent Environmental report states that 'the primary purpose of financial assurance for mining projects is to provide a high degree of certainty that adequate funding will be available to undertake final rehabilitation in the event of default by the operator.'¹⁷

In its report to the Board, Accent Environmental explains that a financial assurance mechanism is 'the system by which governments manage risks associated with rehabilitation liability, including determining the required amounts of financial assurance, regulating the provision of financial assurance and encouraging progressive rehabilitation.'¹⁸ A financial instrument is 'the means by which the agreed amount of financial assurance is guaranteed to be available.'¹⁹

The Accent Environmental report highlights a number of issues that have emerged in relation to traditional financial assurance mechanisms. These include the underestimation of rehabilitation liability; difficulties in meeting requirements for completed rehabilitation; and problems faced by regulators in encouraging progressive rehabilitation.²⁰

Accent Environmental found that in recent years, other jurisdictions have increased their focus on the risks involved with post-closure and unplanned events. There has been an increase in the use of trust funds to fund post-closure monitoring and maintenance (which typically fall outside the scope of a rehabilitation bond), including funds that can be used in perpetuity.²¹ Accent Environmental found that there has also been a trend towards rewarding good performance and encouraging progressive rehabilitation through the adoption of discount bond systems.²²

Accent Environmental also considers the financial assurances and instruments administered by the EPA.²³ Under s. 67B of the Environment Protection Act, the EPA has a range of financial assurance mechanisms available to it. The evidence before the Board is that despite this, the EPA has almost invariably sought bonds in the form of bank guarantees.²⁴ Mr Christopher Webb, Executive Director, Regulatory Practice and Strategy at the EPA, agreed that this is primarily because of the high level of security that bank guarantees provide.²⁵ However, the EPA is currently expanding the forms of financial assurances (and instruments) that it will accept.²⁶ According to Mr Webb, this is because establishing bank guarantees is sometimes problematic for operators, and an expanded range of financial instruments will allow for greater flexibility, while still minimising the risk to the State.²⁷

The Accent Environmental report assesses a range of financial mechanisms that meet the requirements of the Mineral Resources Act and have the potential to ensure that action is taken to rehabilitate the Latrobe Valley mines. These options are:

- Single-step increase—a single-step increase of existing rehabilitation bonds to achieve full financial assurance coverage.
- Multi-step increase—a pre-defined schedule of bond increases to progressively achieve full financial assurance coverage.
- Bond discount—the single-step or multi-step increase options with additional bond discount.
- Trust fund for rehabilitation—using a trust fund to provide supplementary financial assurance coverage.
- Insurance-based coverage—using insurance to provide supplementary financial assurance coverage.
- Pooled fund coverage—using a pooled fund to provide supplementary financial assurance coverage.
- Unplanned events insurance—using insurance to mitigate the risk of unplanned post-closure costs.
- Unplanned events fund—using a trust fund to provide funds for unplanned post-closure costs.
- Post-closure trust fund—using a trust fund to cover the costs of post-closure management, maintenance and monitoring of the sites.²⁸

The report states that:

Financial assurance systems have commonly been criticized for under-estimating actual mine closure costs. The only way to ensure a bond does not fall short is to develop a system that can accurately calculate the cost of mine closure and for this to be annually reviewed and adjusted reflecting performance milestones or non-compliance with any incremental mine closure requirements.²⁹

The alternative financial assurance mechanisms identified by Accent Environmental are detailed below.

9.3.1 SINGLE-STEP AND MULTI-STEP BOND INCREASES

The implementation of the two bond increase options would require the current rehabilitation bonds of the Latrobe Valley mines to be increased in either a single step or multiple steps to a level that is equal to their current rehabilitation liability. Reviews of the bond amount could occur and the bonds would be reset based on recalculations of rehabilitation liabilities.³⁰

Accent Environmental identifies the advantages of this approach as:

- covering the State for 100 per cent of the agreed rehabilitation liability, either immediately, or after the multiple steps are complete
- maintaining consistency with the current administration of the bond system
- potentially providing financial incentives for operators to undertake progressive rehabilitation in order to reduce the rehabilitation liability assessment, leading to a reduction in the bond.³¹

Accent Environmental identifies the disadvantages as:

- for the single-step increase, obliging the operators to provide a large one-off increase to the bond which could potentially create financial hardship depending on the gap
- putting the operators in the position in which the costs of progressive rehabilitation to reduce the bond are likely to be greater than the financial benefits that come from having a reduced bond.³²

9.3.2 BOND DISCOUNT

A bond discount mechanism would require each of the Latrobe Valley mines to increase their current rehabilitation bond in a single or multiple steps, to equal a discounted current rehabilitation liability tied to performance. Accent Environmental suggests that a 25 per cent discount could apply to the Latrobe Valley mine bonds, but that if the mine operators fail to reach performance criteria, the discount would be forfeited.³³

Accent Environmental identifies the advantage of this option as reducing the financial hardship on mine operators. The disadvantages include exposing the State to rehabilitation liability during the period when the discount applies; and that the costs of rehabilitation to reduce the bond and achieve eligibility for the discount are likely to be greater than the financial benefits that come from having a reduced bond.³⁴ Dr Gillespie states that 'it is not obvious what the rationale for a maximum of 25% discount on bond levels would be' and suggested that discounts should reflect individual risk reviews of the mine operator, and that 'where there is negligible risk there is an economic efficiency argument for exclusion from the bond system.'³⁵

9.3.3 TRUST FUND FOR REHABILITATION

Accent Environmental reports that a trust fund could be established to supplement the use of rehabilitation bonds.³⁶ A trust fund 'if established appropriately, sits towards the secure end of the spectrum of risk.'³⁷ Accent Environmental identifies the following advantages:

- If established correctly, the funds would be protected even in the event of one of the signatories becoming insolvent.
- Demonstrates operator commitment.
- Increases the level of assurance that funds will be available to undertake site rehabilitation.
- Can be used to supplement other financial assurance instruments, such as rehabilitation bonds.
- As funds can only be used for rehabilitation, this option provides incentive for progressive rehabilitation to be undertaken.³⁸

While acknowledging that there are some disadvantages associated with trust funds—such as opportunity costs because funds are held in trust and cannot be put to alternative use; additional financial imposition on the operator; and additional administrative burden for the regulator and the operator—Accent Environmental advises that at least some of these disadvantages could be ameliorated if the trust is properly established.³⁹ Accent Environmental refers to the Loy Yang Complex Agreement as an example of this mechanism.

The Loy Yang Complex Agreement is a 1997 tripartite agreement between the operators of the Loy Yang A power station (AGL Loy Yang), Loy Yang B power station (Engie SA, the ultimate holding company of the Hazelwood mine and power station), and the State.⁴⁰ Part 5 of the Loy Yang Complex Agreement (Site Rehabilitation) provides that rehabilitation costs for the Loy Yang mine are to be proportionally met by users of the coal (the power stations) and paid into a trust fund. It states that ‘Site Rehabilitation Expenses shall be met by each of the Parties in proportion to the amounts of Coal used by the Parties during the life of the Loy Yang Mine. The Parties may draw on the Fund to meet the Site Rehabilitation Expenses.’⁴¹

The Loy Yang Complex Agreement requires the parties to open a joint bank account with a trading bank. The parties must then proportionally pay into the account one-tenth of the Loy Yang site’s rehabilitation expenses on an annual basis for a 10 year period, from June 2023 to 2032. Any interest, dividends or other proceeds earned on the fund are to be paid into the fund.⁴²

As the entity responsible for the rehabilitation of the Loy Yang mine, AGL Loy Yang is entitled to use the fund to pay for rehabilitation activities as required.⁴³

Mr Stephen Rieniets, General Manager of AGL Loy Yang, informed the Board that ‘this obligation is unique amongst all other brown coal mines in Victoria and provides an additional financial assurance instrument to the State to ensure that rehabilitation will be completed.’⁴⁴

The Loy Yang Complex Agreement does not specify how the rehabilitation liability is to be calculated in 2023. Evidence before the Board suggests that the State is yet to consider how it will establish and administer the Loy Yang Complex Agreement, given that the obligation to contribute to the fund does not start until 2023.⁴⁵

Counsel Assisting submitted that a trust fund mechanism is worthy of consideration as an appropriate alternative to the current bond system, such as an extension to the Loy Yang Complex Agreement involving the three mines.⁴⁶ However Counsel Assisting also cautioned the Board against ‘recommending change for change’s sake.’⁴⁷

EnergyAustralia submitted that adopting such a mechanism without further detailed consideration is premature.⁴⁸

GDF Suez submitted that there is not sufficient evidence to support the establishment of a trust fund applying to the Latrobe Valley mines, as either an extension of the Loy Yang Complex Agreement, or a pooled trust fund (discussed below).⁴⁹ GDF Suez referred to KPMG’s principle that a good mechanism avoids cross-subsidies.⁵⁰ GDF Suez agreed with Accent Environmental’s comments that this mechanism would present an opportunity cost to the mine operators, as it affects their ability to use funds for other purposes.⁵¹

AGL Loy Yang submitted that a common trust fund would not ‘incentivise the mines to perform because underlying that method is an assumption that one mine may need to foot the bill of the defaulting mine.’⁵²

9.3.4 INSURANCE-BASED COVERAGE

Accent Environmental identifies that insurance coverage could replace or supplement the use of bonds. Accent Environmental lists the advantages of insurance as providing the State with funds to carry out rehabilitation in circumstances where the mine operator defaults on its rehabilitation obligations.⁵³

The disadvantages include:

- no incentive for progressive rehabilitation
- insurance products may not be available, and where they are, premiums may be expensive and subject to fluctuation
- potential legal costs related to making a claim on the insurance policy
- potential for moral hazard—namely, that the mines may default on their rehabilitation obligations as a less expensive option given the coverage provided by the insurer.⁵⁴

9.3.5 POOLED FUND COVERAGE

Under this mechanism, the three mine operators would pay an annual levy into a government-owned rehabilitation fund. The State could use the fund to carry out rehabilitation works in the event that any of the mines default on their rehabilitation obligations.⁵⁵ Accent Environmental describes the mechanism that operates in the Northern Territory where the operators pay one per cent of their rehabilitation bond as an annual levy and are provided with a 10 per cent discount on their bond as compensation.⁵⁶ Accent Environmental notes that this option is only viable where there are multiple operators; otherwise the levy amount will be too high and create too great a financial burden on the operators, unless the discount on the bond is significant. Such a discount would leave the State exposed.

9.3.6 POST-CLOSURE TRUST FUND

Accent Environmental advises that a post-closure trust fund could provide long-term coverage of costs, including any in perpetuity management, maintenance and monitoring costs, which 'will almost certainly be required' in the Latrobe Valley.⁵⁷ Mine operators could be required to maintain a bond to guarantee the availability of funds for the post-closure trust fund. Once rehabilitation was completed, the mine operator would provide funds to pay to the post-closure fund and the bond would be returned.⁵⁸

Post-closure community funds can also be established to fund programs that meet the future needs of the community, which can assist to minimise the social and economic impacts of mine closure.⁵⁹ Mr Michael Cramer, Director of Accent Environmental, explained that these funds can be used to address issues such as unemployment.⁶⁰

The advantages of post-closure trust funds include minimising risk for the State with respect to post-closure costs, and enabling the mine operators to relinquish the site after their rehabilitations obligations are fulfilled. The disadvantages include greater financial burden on the mine operators, and greater administrative burden on the Mining Regulator and the mine operators.⁶¹

Environment Victoria submitted that the use of post-closure trust funds 'is a sensible and indeed necessary mechanism in circumstances in which rehabilitation and monitoring will be required long after the licensees have ceased operating the mines', but it did not agree that a single trust account should be used for the three mines to avoid cross-subsidies.⁶²

9.4 PRACTICALITY, SUSTAINABILITY, EFFICIENCY AND EFFECTIVENESS OF ALTERNATIVE FINANCIAL ASSURANCE MECHANISMS

In addressing the practicality, sustainability, efficiency and effectiveness of alternative financial assurance mechanisms, the Board heard consistent themes about what should be considered, including the incentive to undertake progressive rehabilitation, the risk of mine operators defaulting on their rehabilitation obligations, and the financial impediments to the State and the mine operators.

9.4.1 INCENTIVE TO CARRY OUT PROGRESSIVE REHABILITATION

Mr James Faithful, Technical Services Manager – Mine, GDF Suez, told the Board that the current system does not provide incentives for progressive rehabilitation.⁶³ Mr Ronald Mether, Mine Manager at EnergyAustralia, agreed.⁶⁴ Mr Faithful indicated that a system that provided bonuses for completing progressive rehabilitation would be desirable.⁶⁵ Mr Rieniets agreed that a good system would 'factor in progressive rehabilitation and take that into account when reviewing the bond.'⁶⁶

The Accent Environmental report states that it is not clear whether the financial mechanisms assessed would provide a strong financial incentive for undertaking significant progressive rehabilitation.⁶⁷

However, the report concludes that '[t]here are inherent risks in leaving untested aspects of rehabilitation until the end of operations and it is important that such a situation is avoided in the Latrobe Valley.'⁶⁸

9.4.2 COSTS

Dr Gillespie notes that the current bond system has transactional costs to both the mine operators and the State. Those costs include the estimation of the rehabilitation liability (for example, using the Bond Calculator), documentation and administration, and establishing the bond with an appropriate financial institution.⁶⁹ Mr Rieniets gave evidence that bank fees of between 0.65 and 1 per cent were payable for the establishment and maintenance of the rehabilitation bonds.⁷⁰ Mr Rieniets also told the Board that an additional cost to the mine is the effect that the bank guarantee has on the company's ability to obtain further credit.⁷¹

In its submissions, EnergyAustralia acknowledged that rehabilitation bonds are intended to secure the performance of rehabilitation obligations, but that financial costs associated with large bonds can be significant, particularly when bonds are required over long periods of time. It argued that 'requiring large rehabilitation bonds can have a negative effect of actually consuming potentially substantial financial resources that could otherwise be used for direct active progressive rehabilitation.'⁷²

EnergyAustralia further submitted that its business is supported by the significant financial resources of its holding company, the EnergyAustralia Group, and therefore 'they will be capable of performing, and are appropriately incentivised to perform, their rehabilitation obligations.'⁷³

9.4.3 RISK OF DEFAULT

Each of the mine operators submitted that any system of financial assurance used by the Mining Regulator should be 'risk-based'.⁷⁴

GDF Suez submitted that the 'central question' that the Board should consider is 'what is the likelihood that the State will be required to bear any liability for rehabilitation of the three coal mines in the Latrobe Valley?'⁷⁵ According to GDF Suez, the risk of this occurring is 'very low'.⁷⁶

Accent Environmental acknowledges that it is necessary to consider both the likelihood and consequences of default.⁷⁷ However, Accent Environmental identifies that 'the future of brown coal as a source of energy is currently subject to a greater than usual degree of market uncertainty'⁷⁸ (as discussed in Part 2.3.5 of this report). According to Accent Environmental, these uncertainties mean that 'the risk of one or more of the three mines ending operations prior to the exhaustion of current [coal] reserves has to be taken into consideration when assessing financial mechanisms for rehabilitation.'⁷⁹ Accent Environmental also points out:

One of the major issues requiring management by industry and regulators is the issue of premature closure. An Australia-wide study of approximately 1000 sites that closed between 1981 and 2005 found that...around 75% of site closures were premature or unplanned. The potential consequence of this scenario is that liability may fall on the State if the sites are not rehabilitated effectively.⁸⁰

Dr Gillespie stated that a bond that is calculated by reference to risk management principles would be more economically efficient, but that the State may be left in a position of not having enough money in bonds to cover the costs of rehabilitation, should the worst case scenario take place.⁸¹ Dr Gillespie further states that measures such as reducing the bond as rehabilitation progresses, and setting bond amounts that reflect the risk of insolvency and non-compliance, would make the bond process more economically efficient.⁸²

Dr Gillespie identifies the factors that may impact on the likelihood of default as:

- the past conduct of the mine operator
- degree of financial stability of the mine operator
- assets held by a mine operator and its parent company
- other indications of good corporate governance
- legislative requirements for progressive rehabilitation and the quantum of rehabilitation costs at any point in time
- stability of demand for the product and other market conditions and hence probability of unplanned closure.⁸³

Dr Gillespie states that if the State is willing to adopt a risk-based approach, conducting periodic risk reviews to revise the rehabilitation bond would be preferable to single-step or multi-step increases in the bond amount. The risk reviews would need to take place frequently to ensure that the risk to the State is minimised.⁸⁴

Counsel for Environment Victoria raised potential issues in the practical application of risk reviews, particularly regarding the assessment of risk related to parent companies. Mr Wilson agreed that it could be difficult for the Mining Regulator to determine, in a transparent manner, the structure and assets of the mine operator's parent company.⁸⁵ The Mining Regulator would also require expertise (either internal or external) in understanding corporate structures and insolvency issues.⁸⁶ Counsel for Environment Victoria asked Mr Wilson if the Mining Regulator could potentially incur greater transaction costs in assessing and monitoring risks for international parent companies than would be incurred for Australian companies.⁸⁷ Mr Wilson stated that this is a valid consideration.⁸⁸

Accent Environmental concludes that '[a]ll financial assurance systems rely on the accurate estimation of rehabilitation liability',⁸⁹ and that in the interests of more accurately determining rehabilitation liability, there has been an increased use in other jurisdictions of more sophisticated liability calculation tools and probabilistic cost estimation methods.⁹⁰ This approach may be contrasted with the Mining Regulator's current 'deterministic' methodology, which accounts for any cost uncertainty in a contingency allowance.⁹¹

The Accent Environmental report suggests that probabilistic cost estimations linked to quantitative rehabilitation risk assessments could be adopted in rehabilitation liability calculations for the Latrobe Valley coal mines.⁹²

According to Accent Environmental, '[t]he greater the gap between the rehabilitation bond and the rehabilitation liability, the greater the risk taken on by the State.' In considering alternative financial mechanisms, it is therefore necessary for the State to decide what risk it is willing to bear, the likelihood of rehabilitation default, and the effects of the mechanism on the mine operator's commercial needs or interests.⁹³

AGL Loy Yang submitted to the Board that any revision to the existing bond system should account for progressive rehabilitation works already undertaken and the risk of default.⁹⁴ It submitted that there is no basis to conclude that an increase in the current bond provided by AGL Loy Yang is necessary to protect the State's interest.⁹⁵ AGL Loy Yang further submitted that the establishment of the Loy Yang Complex Agreement rehabilitation trust fund in 2023 will result in a dedicated fund covering the entire rehabilitation liability of the site by around 2031. AGL Loy Yang argued that, therefore, any change to the bond could only be justified if there was a plausible risk of permanent mine closure prior to 2023.⁹⁶ AGL Loy Yang submitted that as Victoria's largest energy generator, at a facility of national significance, and with the strength of its balance sheet, this outcome would be extremely unlikely.⁹⁷

GDF Suez submitted that ‘there is no evidence before the Board which suggests that the adoption of a new system for rehabilitation bonds is essential, let alone urgent, in order to protect the State’s interests.’⁹⁸ GDF Suez further submitted that, if the Board is minded to recommend a new bond system, then:

A robust risk assessment approach ought to be applied to setting and reviewing bonds and such assessment ought not be applied in a one size fits all manner. The requisite risk assessment must be conducted on a case by case basis, having regard to the size, financial strength and reputation of the mine operator and their ultimate parent companies.

Further, any new system ought to include a capacity for operators to access a bond discount model, based on satisfaction of criteria including:

- a. the degree of financial stability of the operator (together with its parent entities);
- b. the operator’s track record in relation to progressive rehabilitation of the mine; and
- c. whether there is demand for the mine’s “product”.⁹⁹

GDF Suez agreed that the 10 principles identified by KPMG in its 2011 report ‘provide reasonable guide to developing or refining the policy applicable to setting rehabilitation bonds’ and noted that one of those principles is ‘the system should be based on risk management principles.’¹⁰⁰

GDF Suez submitted that:

A bond system which permits eligibility for a discount to be accessed by reference to clear eligibility criteria including adherence to progressive rehabilitation targets is likely to provide precisely the right kind of “carrot and stick” mechanism to achieve the dual goals of: (a) ameliorating risk of liability to the State in a manner which properly recognises the real level of risk; and (b) encouraging progressive rehabilitation.¹⁰¹

9.5 BOARD’S DISCUSSION AND CONCLUSIONS

The Board is required to consider whether there are practical, sustainable, efficient and effective alternative financial assurance mechanisms that will ensure the mine operators will carry out the required rehabilitation of the mine sites. The Board is required to consider the Bond Review Project in its deliberations on this Term of Reference.

As has been noted in Parts 7 and 8 of this report, the Bond Review Project is incomplete. The Board notes that the Mining Regulator is also awaiting advice from NERA Economic Consulting about its policy review of the bond system. In the Board’s opinion, that work will provide the Mining Regulator with valuable assistance in its consideration of bonds. The Board affirms this important work, which should be completed as soon as possible.

9.5.1 PRINCIPLES FOR ALTERNATIVE FINANCIAL ASSURANCE MECHANISMS

Given this context, the Board can articulate the general principles that it considers should be part of any review of the current rehabilitation bond system. The Board is not in a position to make a finding that preferences one specific mechanism over another.

To the extent that it can provide its opinions on an alternative mechanism, the Board considers that any financial assurance mechanism must be based on a sound understanding of the likely costs of rehabilitation—without that, the mechanism will not adequately provide outcomes in line with the intentions of the Mineral Resources Act. In order to maintain the foundation of robust rehabilitation cost estimates, the mechanism must mandate periodic reviews of those costs and the progressive rehabilitation works within the mines.

The Board notes the general acceptance of the principles set out by KPMG in its 2011 report for a good security model. It also acknowledges KPMG's opinion that one mechanism is unlikely to satisfy all 10 principles. The Board does not consider that this is a reason not to adopt one or a combination of mechanisms to suit a particular set of circumstances—indeed, as KPMG states, the Mining Regulator and the mine operators need to consider the mechanism and determine what best suits their situation.

The Board is also cognisant of the relative uncertainty of the future of brown coal as a source of electricity across the world, and in Victoria. In that regard, the Board has considered the matters referred to in Part 2.3.5 of this report, which could increase the risk of early closure of one or all of the Latrobe Valley mines. As discussed in Part 8.4 of this report, there are also factors that reduce the likelihood of mine operators defaulting on their liabilities, such as their financial stability. In noting these factors, the Board is careful to state that it has not undertaken any risk assessment of the mine operators defaulting on their rehabilitation obligations.

However the Board considers that a risk-based financial assurance mechanism is appropriate for the Latrobe Valley mines. The Board accepts the submissions of GDF Suez that under the financial assurance mechanism, bonds should be established on a case-by-case basis. The mechanism itself should be consistent and transparent. The Board recommends that the Mining Regulator takes these factors into consideration when identifying the preferred financial assurance mechanism for the Latrobe Valley mines.

The Board has considered the conclusions reached by KPMG in its 2011 report and Accent Environmental's review of the various mechanisms as alternatives to the existing bond system. In line with the conclusions reached by KPMG and Accent Environmental, the Board considers that the alternative mechanisms that are more likely to be 'practical, sustainable, efficient and effective' are the bond discount mechanism and a post-closure trust fund.

9.5.2 BOND DISCOUNT MECHANISM

A bond discount mechanism adopting the KPMG two-track model, could address the financial opportunity costs faced by the mine operators, as well as providing the State with a greater sense of risk control. It recognises the past performance of the mine operators and the likelihood of default, while also providing a financial incentive to the mine operators to complete the identified performance steps, which would likely include progressive rehabilitation.

The Board notes that applying the bond discount mechanism would require, as its foundation:

- An agreed estimated rehabilitation liability assessment, undertaken in consultation with the Mining Regulator, upon which any further consideration of a discount would be based.
- An assessment of the risk factors that may impact on the likelihood of the mine operators defaulting on their rehabilitation obligations—in this respect, the Board accepts the list of factors identified by Dr Gillespie as relevant to this exercise.
- A detailed plan for performance, against which the compliance can be measured.

The Board considers that in order to achieve the agreed rehabilitation liability estimate, the procedures described in the recommendations in Part 8 of this report would need to be followed. The Board also considers that a risk assessment would need to be undertaken using a detailed risk assessment methodology, most likely set by an expert in this field. The complexity of the methodology must be matched by expertise and capacity available to the Mining Regulator, either internally or externally. Processes must be clear and transparent, and not overly onerous to the mine operators, or for the Mining Regulator to administer. Finally, the Board observes that ensuring that a detailed performance plan is documented may be challenging, having regard to the various current uncertainties about progressive and final rehabilitation discussed in this report. This may be more achievable once further research and planning is conducted, as discussed in Part 6 of this report.

9.5.3 TRUST FUNDS

The rehabilitation trust fund to be established under the Loy Yang Complex Agreement provides an alternative model to the State's existing rehabilitation bond system. If established and administered appropriately, such a fund could provide an alternative mechanism for each of the Latrobe Valley mines. The Board is attracted to the idea of such a fund because:

- The mine operators could directly draw down on the fund for rehabilitation (in contrast to locking up working capital via a rehabilitation bond).
- The funds will still be available even in the event of one of the signatories becoming insolvent.
- The ongoing contributions will demonstrate operator commitment to rehabilitation.
- It will increase the State's level of confidence that funds will be available to undertake rehabilitation.
- It can be used to supplement the rehabilitation bond.
- It provides incentive for progressive rehabilitation to be undertaken, as funds can only be used for rehabilitation.

The Board recognises that the mine operators do not support a trust fund that applies to all three mines, due to the potential for cross-subsidies and the risk that one mine operator defaulting would adversely impact the other mine operators. The Board rejects the submission of Counsel Assisting that a common trust fund would be an appropriate alternative to the current bond system.

However the Board accepts that a post-closure trust fund could have significant benefits for the Latrobe Valley, as it could mitigate the likely costs arising from ongoing monitoring, maintenance and management of the rehabilitated mine sites. A post-closure community fund could also have broader benefits for the Latrobe Valley, by mitigating likely impacts to the community that will occur as part of mine closure.

The Board recommends that the Mining Regulator establishes a post-closure trust fund for the Latrobe Valley mines. The Mining Regulator should also consider establishing a post-closure community fund.

The Board suggests that both the State and the mine operators contribute to the post-closure trust fund and community fund. The legacy of the decisions and actions of the State—such as the SECV's low levels of rehabilitation, and the decision to place the Princes Freeway close to Hazelwood mine (see Parts 2 and 6)—have affected the amount and type of rehabilitation the mine operators will need to undertake. This legacy will also impact the need for monitoring and maintenance in the medium and long-term—for example, the location of the Princes Freeway will mean that stability will be of greater importance at the Hazelwood mine, and may require extra monitoring and maintenance. The Board considers that the State cannot abdicate its responsibility for these legacy issues.

The Board notes that the State receives, and is likely to continue to receive, substantial income from the mine operators for rent and royalties, currently in excess of \$32 million per annum (as discussed in Part 3 of this report). Unless there is regulatory change, it can be expected that the State will continue to receive similar amounts over the coming decades, reducing as each mine closes.

Considering the income generated from the mines, and the legacy of State decisions and activity related to the mines, the Board considers that it is reasonable for the State to make contributions to the post-closure trust fund and community fund, if implemented. The mine operators should also make contributions as part of their responsibilities for ongoing monitoring and maintenance.

The Board recommends that the State include risk-based financial assurance mechanisms in the revised financial assurance system, as a method of encouraging progressive rehabilitation. The mechanisms should take into account the size, assets and ownership of the mine operator; the mine operator's history of compliance; demand for coal; and the nature of the mine operation. The mechanisms should also be consistent and transparent, with the level of the financial assurance assessed on a case-by-case basis.

The Board recommends that the State establish a post-closure trust fund to mitigate the likely costs arising from ongoing monitoring, maintenance and management of the rehabilitated mine sites after closure. The State should also consider establishing a post-closure community fund for the Latrobe Valley, to mitigate the likely social and economic impacts of mine closure. The mine operators and the State should contribute to both of these funds.



Hazelwood mine
(source: GDF Suez)



Hazelwood mine
(source: GDF Suez)

PART TEN
OUTSTANDING
ISSUES REQUIRING
RESOLUTION

PART 10 OUTSTANDING ISSUES REQUIRING RESOLUTION

10.1 OVERVIEW

Earlier in this report, the Board discussed and assessed whether the current regulatory framework (legislation, regulations, guidelines and policies), is effective for regulating the Latrobe Valley mines, and in particular, for regulating progressive and final rehabilitation. The Board found that the framework is adequate, however the Mining Regulator has inadequately applied aspects of the regulatory framework and the mine operators have inadequately implemented some of the framework's requirements. As a result, the framework's effectiveness has been compromised.

Therefore, this may reduce the likelihood of successful progressive and final rehabilitation of the three Latrobe Valley mines. To the extent that the Mining Regulator's and the mine operators' actions or omissions fall outside the scope of Terms of Reference 8, 9 and 10, these actions and omissions are reasonably incidental to those Terms of Reference, and therefore fall within the scope of Term of Reference 12.

This Part considers the following issues:

- The adequacy of the work plans and rehabilitation plans approved by the Mining Regulator.
- The consideration and action of the mine operators and the State to verify water availability for the purpose of rehabilitation.
- The Mining Regulator's application of expert advice in relation to work plans and rehabilitation plans.
- The adequacy of the mine operators' engagement with the Latrobe Valley community about final rehabilitation.

In relation to these issues, the Board makes several adverse findings against the Mining Regulator and the mine operators. As noted in Part 1 of this report, s. 76 of the *Inquiries Act 2014* (Vic) imposes a procedure which must be followed if adverse findings are proposed by a Board constituted under Part 3 of the Act. This is an important aspect of the requirements of procedural fairness. The Mining Regulator and the mine operators were provided with the opportunity to consider the Board's proposed adverse findings, and to provide responses for the Board's consideration, before the Board determined to make any adverse findings.¹ The Board considered the various responses provided to it pursuant to the Act, before making the adverse findings set out in this Part.² The Board did not receive any submissions from the State about the Board's proposed adverse findings against the Mining Regulator.

10.2 ADEQUACY OF WORK PLANS

Schedule 15(1) of the Mineral Resources (Sustainable Development)(Mineral Industries) Regulations 2013 (Vic) (Mineral Industries Regulations), prescribes the content and level of detail to be contained in a mine licensee's work plan, including its rehabilitation plan. The licensee must address the following in its rehabilitation plan:

- 'Concepts' for the end utilisation of the site.
- A 'proposal' for the progressive rehabilitation and stabilisation of extraction areas.
- 'Proposals' for final rehabilitation and closure of the site.³

In its evidence to the Board, the Technical Review Board was critical of the insubstantial technical detail contained in work plans.⁴ In its annual reports since 2011–12, the Technical Review Board has identified that there are areas of uncertainty and a number of assumptions contained in the mines' work plans and that 'considerable study, assessment, evaluation, implementation and ongoing monitoring with action plans are required' to test and monitor these uncertainties.⁵ In its 2011–12 Annual Report, the Technical Review Board advised that this will 'take time to develop and will be a costly process' and recommended that 'steps are taken immediately to begin an assessment of the issues.'⁶

In a letter to the Mining Regulator, dated 12 October 2015, regarding AGL Loy Yang's 2015 work plan variation application, the Technical Review Board raises its concerns about the lack of performance criteria (among other things) being set by the State:

[T]he application is highly conceptual and based heavily on descriptions of proposed activities and statements of intent. The underpinning technical information is scant and, furthermore, the reader is required to distil for [itself] the little technical information that there is from the appendices. In the main, performance criteria appear to have been set by the proponent rather than by an independent assessing body...A range of aspects critical to successful rehabilitation are not assessed or even discussed.

...

A fundamental problem appears to me to be that a detailed set of performance criteria are yet to be set by government. For example, the current performance criteria for rehabilitation batters is simply that they are required to be *safe and stable in the long-term*.⁷

Professor Jim Galvin, Chair of the Technical Review Board, told the Board that the Mining Regulator has not implemented performance measures for work plans:

Four years ago the [Technical Review Board] gave formal advice to the department when we were working with work plans that we considered the detail in them to be insufficient, inadequate. We thought that the information they were referring through to us had not been properly distilled and sorted through by the department before it ever got anywhere near us. We gave the department model approval conditions for mines recently approved, other open-cut mines...four years later...nothing had changed...there were things in that plan that should never have got through a regional office as part of the approval process, let alone come to a [Technical Review Board].⁸

The Technical Review Board has also been critical of the content and form of conditions set by the Mining Regulator in relation to work plan variations. In relation to the 2015 Loy Yang work plan variation, Professor Galvin noted that although the conditions attached to the approval are 'a big step in the right direction', they are convoluted and lack clarity.⁹ Many of the conditions in the current work plan require AGL Loy Yang to complete a report or take some other step 'to the satisfaction of the Department Head.'¹⁰ Professor Galvin told the Board that there is no guidance or criteria for determining the outcomes or outputs of the various risk assessments required of AGL Loy Yang in the approved work plan variation conditions.¹¹ When Mr Luke Wilson, Lead Deputy Secretary of Agriculture, Energy and Resources at the Department of Economic Development, Jobs, Transport and Resources (DEDJTR), was asked how the Mining Regulator would establish whether these conditions were met, he stated that 'there would be conversations with the proponent to talk through each condition and lay out what the expectations are...[I]f there are points where it is unclear, then we would work through those.'¹² Mr Stephen Rieniets, General Manager of AGL Loy Yang, stated that AGL Loy Yang planned to 'engage with [DEDJTR] to come to a resolution on those conditions.'¹³

Professor Galvin stated that the Mining Regulator currently has a reactive approach to responding to mine instability and rehabilitation issues. He told the Inquiry that the Technical Review Board believes that the Mining Regulator 'needs to be more proactive in adopting contemporary rehabilitation policies and practices, in promoting research and collaboration between all stakeholders, in conditioning work plan approvals, and in regulatory oversight of rehabilitation.'¹⁴

Professor Galvin further told the Inquiry that, in his opinion, 'Victoria is a decade behind practice in mine approval processes.'¹⁵ Professor Galvin produced an approved work plan for the 2012 Maules Creek Coal Project in New South Wales to demonstrate the required administrative, environmental performance and management, and reporting and auditing conditions that a new mining project in New South Wales requires.¹⁶ He stated that the New South Wales approach provides for greater clarity and allows the reader to easily find key information and navigate between relevant sections.¹⁷

Ms Corinne Unger, a member of the Technical Review Board, produced a copy of the *Western Australian guidelines for preparing mine closure plans 2015*, which she submitted contain principles worthy of review in the Victorian context.¹⁸ Some relevant features of the guidelines include state-established standards and frameworks for closure processes and closure plans; the requirement that all affected state agencies sign off closure plans; and the requirement that mine operators plan for mine closure upfront and review plans regularly.¹⁹

Counsel Assisting submitted that the issue with work plans is not that the mine operators have failed to meet their legal obligations; instead the problem is that ‘the legal obligations are so minimal. It is a minimal compliance regulatory scheme under which the mines do what they have to do.’²⁰ Counsel Assisting noted that this is in contrast to other regulatory regimes, such as that for occupational health and safety, under which:

a person has to do what is reasonably practicable, has to proactively manage risk rather than just doing what the regulator tells them they have to do. This is a very important aspect of the existing scheme. It shows that the scheme is quite out of date when measured against current and sound best-practice regulatory approaches.²¹

10.3 SOURCING WATER FOR REHABILITATION

An area of particular concern to the Board was the manner in which the plans to flood the Latrobe Valley mines have been assessed and regulated, in circumstances where there may not be sufficient water available and mine operators may not be entitled to their current water licensing arrangements.

The 2011 *Gippsland Region Sustainable Water Strategy* (Sustainable Water Strategy), a key state policy, states that the pit lake options for the mines are not ‘an entirely viable option any longer because there is insufficient water to fill most of the mines.’²² The Sustainable Water Strategy identifies a number of actions to be undertaken by key stakeholders to address water availability. Of particular relevance to this Inquiry is ‘Action 6.8 Open-cut coal mine closure and restoration strategies’, which provides that DEDJTR:

will review mine rehabilitation strategies, in consultation with [the Department of Environment, Land, Water and Planning], the Environment Protection Authority and companies that mine coal in the Latrobe Valley. The mine closure and restoration strategies will consider impacts on groundwater and surface water resources.²³

As discussed below, the Board heard that the Mining Regulator approved the rehabilitation plans without adequately consulting relevant stakeholders about water availability (that is, whether there will be enough water in the water system to flood the mines) and accessibility (that is, whether the mine operators can access that water under their existing water allocations). The Board also heard that the mine operators did not proactively follow up these issues with the Mining Regulator to ascertain whether their current rehabilitation plans were viable.

10.3.1 YALLOURN WORK PLAN VARIATION

In a letter dated 2 February 2011 about the 2011 Yallourn work plan variation application, the Technical Review Board advised the Minister that ‘[t]he current Yallourn Mine rehabilitation strategy of flooding the mine has been shown to be not feasible because of insufficient water.’²⁴ The Mining Regulator subsequently approved the Yallourn mine’s 2011 work plan variation with conditions.²⁵ One of the conditions (Condition 7) required EnergyAustralia to review the feasibility of the plan to flood the mine versus other rehabilitation options.²⁶ In response, EnergyAustralia prepared or commissioned four studies:

- *Yallourn mine—Final land rehabilitation lake filling model*, prepared by EnergyAustralia in April 2012.
- A peer review of that report, undertaken by expert consultants GHD in March 2012, titled *Yallourn mine—Lake filling model review: Findings of the model review*.
- *TRUenergy Yallourn: Report for Yallourn mine rehabilitation—Geotechnical assessment of flooding options*, prepared by GHD in May 2012.
- *Yallourn mine final rehabilitation—Review of the Morwell River Diversion*, prepared by expert consultants SMEC in May 2012.²⁷

The studies informed the development of a report titled *Review of the Yallourn mine rehabilitation master plan*, which was submitted to the Mining Regulator in 2012.²⁸ The report states:

In a major assessment of the potential development of the Latrobe Valley coal fields in this century (Latrobe Valley 2100 Coal Resource Project, GHD 2004), a range of issues were identified...It was put forward that “Using water for final rehabilitation is another possible solution, however fully flooding all mine areas is unlikely to be viable due to the magnitude of water required. Designs would need to identify the source of the water and demonstrate appropriate management of any environmental issues before flooding should proceed.”

...

[EnergyAustralia] has recently commenced further work to better quantify the geotechnical design requirements of our preferred fully flooded mine rehabilitation option. What remains critical for [EnergyAustralia] is ensuring that the currently approved [rehabilitation master plan] is re-affirmed by [DEDJTR] and that more certainty regarding our access to water resources can be gained...²⁹

Mr Wilson conceded that this was an indication that EnergyAustralia ‘was looking to [DEDJTR] for some certainty’ about access to water for the purpose of its rehabilitation plan.³⁰ Despite the ‘critical’ concerns raised in the letter from EnergyAustralia, the Mining Regulator did not formally respond.³¹ Mr Wilson indicated that there was informal contact between the Mining Regulator and EnergyAustralia; however he could not provide the Board with information about the nature and purpose of this contact.³²

10.3.2 LOY YANG WORK PLAN VARIATION

The issue of water availability was also raised during the approval process for the 2015 Loy Yang work plan variation. AGL Loy Yang’s application included a copy of a report it commissioned from GHD, titled *Report for AGL Loy Yang—Loy Yang mine rehabilitation: Mine lake water balance modelling*.³³ The GHD report states that:

the likelihood of accessing full Bulk Entitlement post mine closure is unknown at this stage and could potential [sic] be affected by actual climate sequences, in particular during drought periods so their [sic] is some uncertainty associated with relying on this allocation for mine closure planning.³⁴

The Mining Regulator referred the Loy Yang work plan variation to Southern Rural Water for comment. In reply, Southern Rural Water advised the Mining Regulator, in a letter dated 24 August 2015, that ‘[t]here are a significant number of risks related to the long-term availability of water for mine void filling’ which are not addressed in the Loy Yang work plan variation application.³⁵

The letter also notes that Southern Rural Water was advised by the Department of Environment, Land, Water and Planning (DELWP) that a meeting between it and DELWP to consider the work plan variation is ‘essential.’³⁶ Dr Sharon Davis, Executive Director of the Water Resourcing Division, Water and Catchments Group at DELWP, told the Board that she agreed that such a meeting was essential, and the same issue was raised on two earlier occasions.³⁷ As at 9 December 2015, the ‘essential’ meeting between Southern Rural Water and DELWP had not occurred; nor had it been scheduled.³⁸

Despite the correspondence from Southern Rural Water, the Mining Regulator approved the 2015 Loy Yang work plan variation but with conditions. Condition 7.1 of the Loy Yang work plan variation requires the mine operator to perform a ‘Water Resources Risk Assessment’, to be undertaken in accordance with Action 6.8 of the Sustainable Water Strategy (as discussed in Part 6).³⁹ Counsel Assisting questioned Mr Wilson on whether the Mining Regulator was delegating its responsibilities under Action 6.8 to AGL Loy Yang. Mr Wilson stated that Condition 7.1 was ‘not intended to be read that way’, and that responsibility remained with DEDJTR.⁴⁰

In response to questions about why the 2015 Loy Yang work plan variation was approved in light of the concerns raised by Southern Rural Water, Mr Ross McGowan, Executive Director of the Mining Regulator, stated that:

On the face of it, it would appear that they contradict each other, but over time application of water from particular water authorities and particular companies changes. So, at the end of mine life I would have thought there would have been conversations with respect to the use of water and the use of entitlements and perhaps the use of those entitlements for other matters, including mine flooding.⁴¹

10.3.3 LIAISON WITH KEY STAKEHOLDERS

The Board heard that DEDJTR has not yet consulted with DELWP or any of the mines to undertake Action 6.8 of the Sustainable Water Strategy.⁴² Further, DELWP (which has statutory responsibility for the Sustainable Water Strategy) has not progressed the issue with DEDJTR.⁴³ This is despite s. 22J of the *Water Act 1989* (Vic) (Water Act), which requires DELWP to comment on measures being taken to implement the State's current 'Sustainable Water Strategies' in its annual report. The State advised the Board that the failure by DELWP to report as required was because its annual reports are 'by necessity at a high level' due to the 'breadth of issues' that needed to be addressed.⁴⁴

The only evidence before the Board that the Mining Regulator has led some discussions about water availability for rehabilitation plans is the exchange between Southern Rural Water and the Mining Regulator (referring to advice from DELWP), in relation to the 2015 Loy Yang work plan variation.⁴⁵

The Mining Regulator has not otherwise had discussions about the availability of water (generally or through current allocations) with Dr Davis, Mr Clinton Rodda, Managing Director of Southern Rural Water, or Mr David Mawer, Managing Director of Gippsland Water. The Board heard:

- Dr Davis and Mr Rodda stated that it is not clear whether any or all of the mine operators would be able to use their existing water allocations to access the water they needed to fill their pits.⁴⁶
- Dr Davis and Mr Rodda have not been asked formally for their views on whether the mines will be able to use their present water allocations,⁴⁷ or be able to divert one or more rivers for the purpose of filling the lakes.⁴⁸
- Dr Davis, Mr Rodda and Mr Mawer were unaware of the volume of water that mine operators had proposed was required for each lake.⁴⁹
- Mr Rodda stated that it is difficult to speculate on the future available quantity of water, and accordingly, it is possible that the volume of water available to the mines could diminish as each allocation is a percentage, not a set amount.⁵⁰

Mr Wilson conceded to the Board that the issues identified throughout the Inquiry regarding water access are 'not new issues, they have been around for a number of years', but that they need to be resolved for rehabilitation plans to be implemented.⁵¹

Professor Rae Mackay, Director, Geotechnical and Hydrogeological Engineering Research Group (GHERG) at Federation University Australia, explained to the Board why it is crucial for agencies to work together on this question:

These mines will become fairly significant sinks for water in the sense that they will become open lakes and those lakes will have significant evaporation. That means that there will be a change in the hydrology of the area for a period of time. It may be that change in the hydrology will become a permanent feature of the region and that will have implications, both positive and negative, for the region's water users. The potential that the stability of the mines and the management and maintenance of the mines in their rehabilitated closed form will be a significant expense exists and therefore there will need to be some reconciliation of that.

So there is a whole series of reasons why all the stakeholders who are involved in the consideration of what closure will mean for the Valley should come together to actually address those issues.⁵²

10.3.4 MINE OPERATORS

The Board heard that, with the exception of EnergyAustralia, the mine operators have not initiated any formal conversations with DEDJTR or DELWP to obtain an assurance that water can be accessed under current allocations for rehabilitation purposes or that there is an adequate supply of water for each lake.⁵³

The Board notes that regardless of the Mining Regulator's failure to respond to EnergyAustralia's concerns about water availability in 2012,⁵⁴ EnergyAustralia has taken no further action to raise that issue again.⁵⁵ When Mr Ronald Mether, Mine Manager at EnergyAustralia, was asked if EnergyAustralia had sought to follow up this issue since then, during its many subsequent interactions and correspondence with the Mining Regulator, he said that 'it hasn't been front of mind at those discussions in the last three years.'⁵⁶ Mr Mether informed the Board that EnergyAustralia has not actively initiated discussion with the State due to 'other activities', such as the repair of the Morwell River Diversion after its failure in 2012.⁵⁷

Mr James Faithful, Technical Services Manager – Mine, GDF Suez, agreed that the current rehabilitation plans for Hazelwood mine assume access to its current water allocations.⁵⁸ Counsel Assisting asked Mr Faithful what steps had been taken by GDF Suez to confirm access to water sources for the purposes of rehabilitation. Mr Faithful told the Board that 'there has been no formal request of government officials to secure access to that water.'⁵⁹ He told the Board that he was aware of discussions between a colleague and a representative of Southern Rural Water at a recent Regional Groundwater Management Committee meeting about the licensing process for groundwater.⁶⁰ In additional evidence to the Board, Mr Faithful stated that his understanding was based on 'the discussion that we had or one of my colleagues had with Southern Rural Water which indicated that you could roll those water licences over for a period of 15 years.'⁶¹ Mr Faithful could not say whether the use of groundwater licence allocations was discussed.⁶²

In answer to a question from counsel for GDF Suez, Mr Faithful told the Inquiry that GDF Suez would 'of course' liaise with the water authorities or get some assurance regarding access to water if the Mining Regulator asked it to.⁶³ However, when asked by Counsel Assisting about the same matter, Mr Faithful accepted that GDF Suez did not have to 'wait until it is a condition of a work plan to ask the question.'⁶⁴

Mr Rieniets informed the Board that water from Loy Yang's current bulk entitlements and groundwater licence are 'more than sufficient' to fill the mine to achieve stability,⁶⁵ and that he assumed that Loy Yang mine 'will have access to that water.'⁶⁶ When asked if AGL Loy Yang had received any assurance from the administrators of its allocations in this regard, Mr Rieniets responded that AGL Loy Yang 'haven't had any official discussions with the government on that.'⁶⁷

In response to further questioning from Counsel Assisting regarding discussions with the State about accessing existing allocations, Mr Rieniets told the Board that AGL Loy Yang had not done so 'at this point.'⁶⁸ Mr Rieniets stated to the Board that it was a condition of the 2015 work plan variation that AGL Loy Yang engage with the regulators and other authorities about sourcing water but that obligation arises at the end of stage C of the rehabilitation plan, which is expected to be in 2023.⁶⁹ Mr Rieniets accepted that the level of proposed water in the Loy Yang mine pit might change in the future, depending on answers to questions about sourcing water.⁷⁰

Counsel Assisting submitted that the mine operators have not been sufficiently proactive in resolving the issue of sourcing water.⁷¹ In their closing submissions to the Inquiry, each of the mine operators advocated against the finding that they should be criticised by the Board for their failure to be more proactive in this regard.⁷²

EnergyAustralia rejected the submissions of Counsel Assisting that it was not proactive, in particular referring to its communications with the Mining Regulator about the studies completed under Condition 7 of its 2011 work plan variation.⁷³ EnergyAustralia submitted that it has undertaken a substantial body of work in relation to the identification of potential water sources and issues associated with flooding the mine, and has determined that there is sufficient water available to fill the Yallourn mine.⁷⁴ EnergyAustralia submitted that the substance of that work should reassure the Board that there will be sufficient water to flood the Yallourn mine at the end of mine life.⁷⁵

EnergyAustralia further submitted that it is not in a position to lead discussions with the Mining Regulator in relation to the management of the State's water resources.⁷⁶ EnergyAustralia stated there are too many unknown factors, which render holding detailed conversations about water availability and access premature, and that 'it is not practical to achieve a greater level of certainty at this point in time.'⁷⁷ It also submitted that 'there is no evidence before the Board to support the proposition that the issue of sourcing water should be any further advanced at this juncture.'⁷⁸

EnergyAustralia also stated that the Sustainable Water Strategy erroneously assumes that the Hazelwood and Loy Yang mines will be filled entirely with water, and it should not be relied upon as it implies that a greater volume of water is needed.⁷⁹

GDF Suez submitted that 'it is somewhat galling for the mine operators to be criticised for an alleged failure to discuss these matters with government.'⁸⁰ GDF Suez further submitted that it should not be criticised for using the Regional Groundwater Management Committee as an appropriate forum for discussing, on an informal basis, issues about water with Southern Rural Water.⁸¹

GDF Suez stated that its groundwater licence is granted 'for the purpose of achieving safe and stable conditions at the Hazelwood mine.'⁸² It further stated that filling the void after mining ceases is crucial to the long-term stability of the Hazelwood mine, and therefore the Board should accept that filling the mine is 'entirely consistent with the purpose for which the groundwater licence has been issued.'⁸³

GDF Suez submitted that '[t]he Water Act provides that on the application of the holder of a licence for renewal of the licence, the Minister must renew the licence unless there are good reasons not to do so.'⁸⁴ GDF Suez stated that it was Counsel Assisting who had sought 'to inject an element of uncertainty into the viability of the rehabilitation plans' by questioning whether the various current water allocations could be used after mining and power generation ceases.⁸⁵

In relation to the uncertainties highlighted in its 2015 work plan variation (including the source and quality of water to fill the pit), AGL Loy Yang stated that:

AGL readily agrees that there are uncertainties which remain which require further work, but there is no evidence to suggest that these issues will not be addressed or that they are incapable of resolution. AGL has made significant commitments, both within the body of the work plan variation 2015 and in allocating substantial resources to address these issues.⁸⁶

In acknowledging that uncertainties exist about using water entitlements for lake filling, AGL Loy Yang submitted that 'in a practical sense it seems to be an artificial concern for the reason that there is no alternative rehabilitation, other than to rehabilitate the mine voids in a manner that includes a lake in the mine void.'⁸⁷ AGL Loy Yang relies on the Jacobs Group (Australia) Pty Ltd options report commissioned by the Board of Inquiry (see Parts 5 and 6) as evidence that there is no alternative option.⁸⁸

AGL Loy Yang also submitted that 'at this stage AGL has not received any indication from the authorities that it will not be able to use at least some of the water currently available to the site by way of bulk entitlements or groundwater licence.'⁸⁹ It further submitted 'that it is entirely appropriate for it to put forward its preferred scenario for lake filling in its work plan and to work with the authorities to aim to achieve that outcome.'⁹⁰ AGL Loy Yang stated that 'there is no rational reason why the authorities would refuse to provide AGL with a continuing entitlement to fill its mine if it was in the net interests of the community of Victoria to provide access to that water.'⁹¹

AGL Loy Yang further stated that it is entitled to assume that water will be provided by the State, because the Loy Yang mine site, when originally designed and constructed by the State Electricity Commission of Victoria, proposed a lake at end of mine life. AGL Loy Yang contended that had obtaining water been considered a risk at that point in time, the mine would have been designed differently to reduce the requirement for water when the mine closed.⁹² AGL Loy Yang submitted that on the basis of this history, it is entitled to assume that water will be available to fill the mine pit.⁹³ AGL Loy Yang submitted that 'the question is really about the length of time [the mine pit] will take to fill' when considering climate change and other factors that may impact water availability over time, not whether water will ultimately be available.⁹⁴ AGL Loy Yang submitted that it will be able to access water from the Blue Rock Reservoir (which is a water source for the Latrobe Valley power stations) and the Traralgon Creek.⁹⁵

AGL Loy Yang submitted that as a result of this Inquiry, the information about mine closure plans ‘can now assist with the scheduling of water resources allocation whilst maintaining current environmental flows. AGL Loy Yang will work with the Government agency tasked with this scheduling and co-ordination activity.’⁹⁶ It submitted that ‘this context supports the making of assumptions about the availability of water to the Loy Yang site, and that the Board ought not to make findings that criticise AGL Loy Yang for making such assumptions.’⁹⁷

10.4 COMMUNITY ENGAGEMENT

A further matter raised with the Board relevant to the regulation and implementation of work plans, is the adequacy of community engagement plans and processes. Throughout the Inquiry process, a consistent theme raised was the desire for the community to be better informed of, and included in discussions about, rehabilitation of the Latrobe Valley mines.

Ms Sara Rhodes-Ward, General Manager of Community Services at Latrobe City Council, stated that ‘if it’s about us, you need to involve us.’⁹⁸ Mr David Langmore, Latrobe Valley resident, emphasised that work plan variations should be part of ‘clear, formal, public processes’ and ‘not a matter of striking a deal between a particular single department of the State Government and a particular private company.’⁹⁹

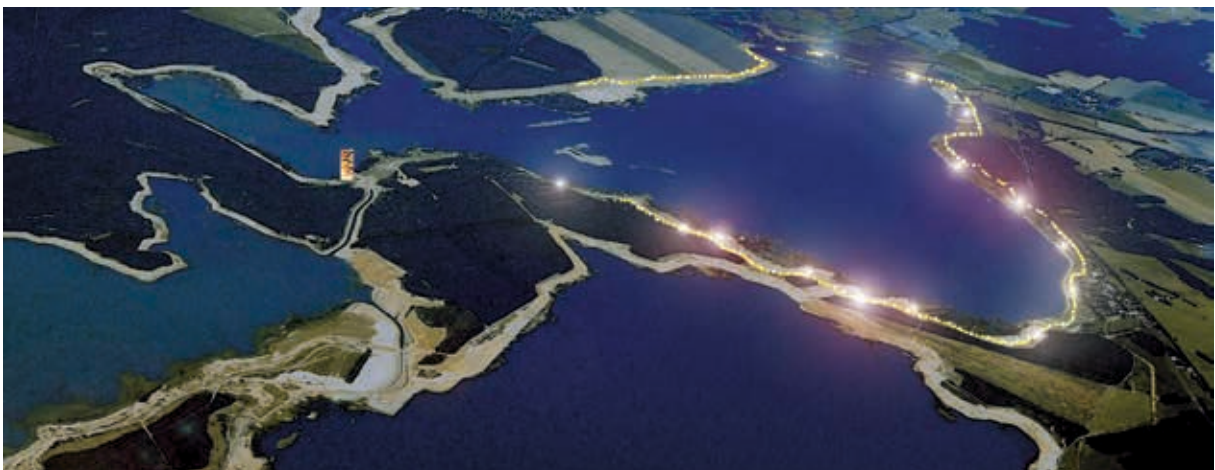
Environment Victoria submitted that ‘[e]ducating the community about what the rehabilitation options are, what is technically feasible and what the risks and opportunities are is the necessary first step to effective community engagement.’ In its submission, Environment Victoria states that the trust of the community is a prerequisite to successful community engagement, and refers to the evidence of Mr Craig Lapsley, Victoria’s Emergency Management Commissioner, that ‘trust is gained in these situations by developing an understanding of the community being engaged, and then having ongoing discussions.’¹⁰⁰

The Board heard about successful examples of community engagement in mine rehabilitation in Germany, outlined in the case study below.

Case study: Community engagement projects in Lusatia, Germany

In Germany, there has been a focus on integrating communities into the mine rehabilitation process. Several projects have been undertaken in the Lusatia region to help build residents’ connection with the new landscape. A number of choirs in the region joined to create a united choir, with around 500 singers performing a new anthem in the post-mining landscape. In another project, residents were invited to welcome the creation of the new pit lake by joining in a light show performance. Community members brought their own torches, which lit up the perimeter of the new lake (see Figure 29). Dr Friedrich von Bismarck, Head of the Joint-Governmental-Agency for Coal Mine Rehabilitation in Germany, told the Board that the majority of the population in the region now see rehabilitation as a ‘very positive development.’¹⁰¹

Figure 29. Pit lake in Lusatia, Germany, lit by torches as part of community engagement project



Source: IBA-See

10.4.1 REGULATORY REQUIREMENTS

As discussed in Part 3 of this report, the *Mineral Resources (Sustainable Development) Act 1990* (Vic) (Mineral Resources Act) requires that a work plan must include a ‘community engagement plan’.¹⁰³ Schedule 15 of the Mineral Industries Regulations requires that the community engagement plan:

- a. identifies any community likely to be affected by mine operations; and
- b. in relation to the mine operations, includes proposals for—
 - i. identifying community attitudes and expectations; and
 - ii. providing information to the community; and
 - iii. receiving feedback from the community; and
 - iv. analysing community feedback and considering community concerns or expectations;
- c. includes a proposal for registering, documenting and responding to complaints and other communications from members of the community in relation to the mine operations.¹⁰⁴

Further, a mine operator is required to share information with the community about ‘any activities authorised by the licence that may affect the community’, and give members of the community a ‘reasonable opportunity’ to express their views about those activities.¹⁰⁵ The mine operators’ licence conditions require the establishment of an ‘Environmental Review Committee’ constituted by representatives from the community and government, including DEDJTR, DELWP, the Environment Protection Authority (EPA), water authorities and Latrobe City Council. Each Environmental Review Committee receives reports on environmental monitoring and progressive rehabilitation undertaken by that mine operator.¹⁰⁶

Ms Rhodes-Ward highlighted that community members involved in committees and consultations were often expected to disseminate information through their networks.¹⁰⁷ She told the Board that this can be onerous for community members, and that ‘we need to potentially rethink the expectations that we place on those individuals, that we can’t somehow assume that their attendance at those meetings removes from us the obligation to more broadly engage and interact with the community.’¹⁰⁸

Mr Langmore stated that it is important that people ‘genuinely feel that they have some power in the process’, rather than having tokenistic involvement.¹⁰⁹ However, Mr Langmore also indicated to the Board that sometimes, community members can become overwhelmed by the number of consultations they are asked to participate in.¹¹⁰ He told the Board that it was important that consultation processes are well considered, structured and phased, and that participants ‘shouldn’t be overworked in the process.’¹¹¹ Ms Rhodes-Ward noted that there should be a range of options for community members to engage, so that they can participate at a time and in a format that suits them.¹¹²

10.4.2 COMMUNITY ENGAGEMENT MECHANISMS EMPLOYED BY THE MINE OPERATORS

The Board heard that the mine operators are engaged in various community engagement processes and activities, and have complied with the Mineral Resources Act by including a community engagement plan in their work plans. The mines have also each formed an active Environmental Review Committee.¹¹³

The 2015 Loy Yang revised community engagement plan details each of the requirements of the Mineral Industries Regulations, and highlights the Environmental Review Committee and an annual public engagement forum as the primary means of providing information to the community and receiving community feedback.¹¹⁴ AGL Loy Yang also undertakes an annual independent community perception survey to assess the ‘effectiveness of its stakeholder and community engagement.’¹¹⁵ Under the section ‘Providing information to the community’, the Loy Yang mine community engagement plan states:

AGL Loy Yang commits to on-going engagement with its community to identify attitudes, expectations and concerns about its operations. With the project being in the Loy Yang Mine's operational phase, most of the information generated by the project relates to routine and on-going matters such as environmental monitoring and reporting with occasional, minor changes to operational activities.¹¹⁶

When questioned by Counsel Assisting about the importance of communicating with the community, Mr Rieniets stated that '[w]e have an [Environmental Review Committee], as I mentioned. We also have public forums to talk about environmental matters every year. The whole community is invited. We get 50 to 60 people as a minimum turn up to those sessions each and every year.'¹¹⁷

GDF Suez informed the Board that it undertakes additional community engagement processes, such as its community briefings, which are aimed at updating the community 'on responses to the [2014 Hazelwood Mine Fire] Inquiry, fire management and preparedness and rehabilitation works.'¹¹⁸

Mr Mether told the Board that EnergyAustralia produces a voluntary Social and Environmental Performance Summary report annually, which provides the community with a description of its health, safety, environment and community activities, and includes a report from the independent chair of its Environmental Review Committee on the activities and considerations of that committee.¹¹⁹

The Board notes that in 2015 AGL Loy Yang did not consult with the community about a change to its final rehabilitation plan—namely, that it was no longer intended that the mine site would be accessible to the public at the end of mine life.

Mr Rieniets told the Board that he understood that the change to public access at the end of mine life was discussed with AGL Loy Yang's Environmental Review Committee.¹²⁰ When asked directly by Counsel Assisting if the proposed change had been conveyed to the community in the Latrobe Valley, Mr Rieniets replied 'I can't answer whether it has or hasn't'.¹²¹ Mr Rieniets accepted that if AGL Loy Yang wants to ensure that a message reaches the community, it has to take additional steps beyond 'having a conversation with two community members present' at an Environmental Review Committee meeting.¹²² He added that he assumed that the work plan variation would be a public document once it was approved.¹²³

Mr Rieniets referred to AGL Loy Yang's annual public forums as a consultation mechanism for the mine. He conceded that the change to planned final land use had not been raised at any of those sessions.¹²⁴

Mr Wilson was asked whether a significant change to final land use such as that contained in the 2015 Loy Yang work plan variation should be the subject of community engagement. He responded that it should, and that both the Mining Regulator and the mine operator have a responsibility in that regard.¹²⁵

Counsel Assisting submitted to the Board that there was 'a lack of community consultation or transparency' associated with the approval process concerning AGL Loy Yang's 2015 work plan variation.¹²⁶ Environment Victoria supported this submission and pointed out that because the variation had occurred very recently, it is an important part of the evidence about current practices by the mine operators and the Mining Regulator.¹²⁷

AGL Loy Yang submitted that the duty under s. 39A of the Mineral Resources Act to consult with the community only extends to activities undertaken during the licence period, and does not extend to a duty to consult 'about a change in the proposed end land use at the cessation of mining in a work plan variation which precedes the intended closure date of the mine by 32 years.'¹²⁸ It submitted that the meaning of the phrase 'mining activities authorised by the licence' does not include 'final land use at the cessation of mining.'¹²⁹ AGL Loy Yang accepted that as part of the closure planning process, the community should be consulted about potential end land uses, however it is currently many years from the closure planning phase.¹³⁰ AGL Loy Yang submitted that it 'anticipates that it will consult about post-closure land use as the proposed closure timing moves closer and its rehabilitation plans become more detailed and refined.'¹³¹

AGL Loy Yang also submitted that as there is no current regulatory requirement to consult the community about work plan variations, 'it was not required or requested by the Department to consult with the community about the 2015 [work plan variation]', but that it will do so now that it has been approved.¹³²

In submissions to the Board, AGL Loy Yang accepted that 'the right to mine is a social licence which entails a moral commitment...to engage in meaningful dialogue with the local community.'¹³³

GDF Suez acknowledged that the 'community has an earnest desire to be part of the conversation about rehabilitation at the Mine'; however it submitted that the purpose of any such engagement 'is not to seek 'agreement' as this will never be forthcoming.'¹³⁴ GDF Suez referred to the evidence of Dr Clint McCullough, Associate and Principal Environmental Scientist at Golder Associates, in support of this submission.¹³⁵ The Board notes that Dr McCullough stated that stakeholder agreement will never reach agreement on closure criteria because 'there will always be either poorly informed people or people with extreme views.'¹³⁶

In its closing submissions, GDF Suez urged the Board to recommend that the State develop a 'Strategic Action Plan' with a number of objectives, including to ensure that 'the coal mines engage with communities as an integral component of planning for mine rehabilitation.'¹³⁷

10.5 THE MINING REGULATOR'S 2015–16 ACTION PLAN

The Board heard that the State proposes to improve the way it addresses issues about regulatory processes and structures. This intention is outlined in the *Earth Resources Regulation 2015–16 Action Plan* (Mining Regulator's Action Plan).¹³⁸ The Action Plan includes a focus on:

- role clarity (including the establishment of a community advocate role)
- building capability and culture (including the engagement of expert advice)
- risk-based strategies (including risk-based work plans)
- clear and consistent regulatory activities
- stakeholder consultation and engagement
- timeliness of decision-making
- communication and transparency.¹³⁹

The Action Plan highlights 'transparency' as a 'compliance principle',¹⁴⁰ and recognises the need for assessment criteria, applications, reports submitted by mines, and regulatory decisions, to be published.¹⁴¹ The Action Plan further indicates that the Mining Regulator has committed to drafting a guideline that provides clear information to industry about requirements under risk-based work plans.¹⁴²

The Action Plan records that the Mining Regulator will take steps to lead and strengthen its relationship with DELWP and other regulators (for example, the EPA and WorkSafe), to ensure that information is shared, and that there is consistency and cooperation in carrying out regulatory functions.¹⁴³

Under the Action Plan, the Mining Regulator aims to build its operational technical capability by drawing on the Technical Review Board to provide more strategic technical advice.¹⁴⁴ The Mining Regulator will also establish an external technical expert panel, which will 'provide operational technical capability in areas such as mine stability and water and chemical risks, and also support development of staff skills in these areas.'¹⁴⁵

Under the Action Plan, greater emphasis will be placed on risk management through the development of a holistic risk management framework for all regulatory activities. This will be supported by the implementation of risk-based work plans, as required by recent changes to Mineral Resources Act and Mineral Industries Regulations.¹⁴⁶ The Action Plan flags the establishment of a work plan assessment taskforce to '[s]elect the highest risk sites (approximately 50 sites) to submit risk based work plans.'¹⁴⁷

The Mining Regulator will also investigate the introduction of a cash bonds system for rehabilitation, and has committed to consider '[o]ther options to tailor bonds to reflect risk, informed by the Hazelwood Mine Fire Inquiry' in 2016.¹⁴⁸

The Action Plan states that DEDJTR will clarify the roles of its separate regulatory, industry development and independent dispute settlement arms, to assist community and industry to better understand the distinct roles.¹⁴⁹ A Community Advocate's role will be established to '[s]upport informed community participation in earth resources regulatory decisions.'¹⁵⁰ Mr Wilson explained that this was in response to DEDJTR identifying that community input is 'something that we need to do better', and that the Community Advocate's role would generate, coordinate and test community input.¹⁵¹

Also detailed within the Action Plan are strategies to increase technical capabilities related to fire safety, as recommended by the 2014 Hazelwood Mine Fire Inquiry.¹⁵² One strategy is the establishment of a Mine Fire Safety Unit, the role of which is to 'lead regulatory, compliance and education activities related to fire safety, and to provide advice to [the Mining Regulator's] staff, industry and the public.'¹⁵³ The Unit will have a staff of six and an annual budget of \$1.6 million.¹⁵⁴ The Unit will contribute to the Mining Regulator's assessment of fire risk in the Risk Assessment and Management Plans submitted by the mine operators.¹⁵⁵ Risk and fire experts will support the Unit by advising on 'best practice in other Australian jurisdictions.'¹⁵⁶

10.6 BOARD'S DISCUSSION AND CONCLUSIONS

The current regulatory scheme encourages a formalistic 'minimal compliance' approach. There were several examples before the Board that demonstrate that the regulatory framework is inadequate. In other instances, the framework is adequate, however it has not been adequately applied by the Mining Regulator or effectively implemented by the mine operators.

There are also examples of inadequate communication between the Mining Regulator and other key stakeholders such as DELWP. The 2014 Hazelwood Mine Fire Inquiry Report examined in detail the lack of communication between the Mining Regulator and the Occupational Health and Safety Regulator in Victoria, concerning the management of fire risk at the Hazelwood mine.¹⁵⁷ It is disappointing to the Board to see parallels between that situation and the present situation. The Board finds that the Mining Regulator has at times acted in isolation from other relevant state agencies, to the detriment of the mining industry and ultimately the broader community. This must be addressed as a matter of priority and is considered further in Part 11.

10.6.1 ADEQUACY OF WORK PLANS AND REHABILITATION PLANS

The Board agrees with the opinions of the Technical Review Board that the mines' work plans are conceptual and lack detail. The Board considers that this is a consequence of the framework, rather than reflecting the level of planning and modelling that has been undertaken by the mine operators.

A clear and systemic process would provide obvious benefits to the Mining Regulator and the mine operators, and avoid, for example, the 'convoluted and unclear' 2015 Loy Yang work plan variation conditions. Mr Wilson's suggestion that the Mining Regulator would 'talk through' its expectations under the work plan variation conditions with AGL Loy Yang, shows that the conditions themselves should have been better crafted, or that the work plan variation should not have been approved in its current form. The approach to regulation reflected in the conditions does not ensure transparency, accountability, consistency or certainty for mine operators.

Another example of the 'minimal compliance' approach of the current regulatory scheme is the State's failure to carry out Action 6.8 of the Sustainable Water Strategy. The Board reiterates that DEDJTR, DELWP and the relevant water authorities, in consultation with the mine operators, need to address the issues of water availability and accessibility in the immediate short-term. The Mining Regulator must strengthen arrangements with key agencies to formalise the way in which work plan variations are referred to agencies for review and approval. This needs to be appropriately documented to ensure accountability.

Condition 7.1 of the Loy Yang work plan variation requires AGL Loy Yang to conduct a water resources risk assessment in accordance with Action 6.8 of the Sustainable Water Strategy. However Action 6.8 is the responsibility of DEDJTR. The Board considers the Mining Regulator's inclusion of Condition 7.1 in the Loy Yang work plan variation as an example of DEDJTR failing in its responsibility to itself undertake the steps required by Action 6.8.

The issue of water availability is of profound importance to the mine operators' ability to implement their approved plans, however the current regulatory scheme does not support good practice in this area. The mine operators are required under the existing law to submit a rehabilitation plan for approval. They have each done so and their plans assume the availability of large quantities of water for rehabilitation. The Mining Regulator has not taken adequate steps to assess the viability of those rehabilitation plans. It has not adequately consulted with any of the key stakeholders in relation to water availability or access.

The Mining Regulator does not require the mine operators to satisfy it that they have made any inquiries of the water authorities. As a result the mine operators have not done so. Each mine operator has informed the Board that it would make such an inquiry but only if it was required by the Mining Regulator. The Board acknowledges that in 2012, EnergyAustralia urged the Mining Regulator to consider issues around water availability for final rehabilitation. EnergyAustralia's inquiries went unanswered. As Mr Wilson indicated, the issues raised by EnergyAustralia were of critical importance to the viability of its rehabilitation plans. Its importance should have resulted in timely action by the Mining Regulator. Despite the lack of response, EnergyAustralia did not follow up this issue with the Mining Regulator. The Board considers that it would have been prudent for EnergyAustralia to follow up these inquiries with the Mining Regulator.

A further example of shortfalls in the current regulatory framework arises from the 2015 Loy Yang work plan variation approval process. The Mining Regulator referred the proposal to Southern Rural Water for comment. Southern Rural Water raised a number of fundamental concerns with the proposal. It requested that there be a meeting to discuss these concerns before the Mining Regulator corresponded further with AGL Loy Yang. Despite these concerns and this request, the Mining Regulator approved the proposal without any such meeting and without requiring AGL Loy Yang to address the concerns raised in the correspondence from Southern Rural Water. The Board notes that there is no mechanism under the current regulatory framework requiring the Mining Regulator to act on the concerns of an agency that it has sought comment from, such as Southern Rural Water.

10.6.2 ADEQUACY OF ACTIONS TAKEN BY MINE OPERATORS ABOUT WATER AVAILABILITY

The Board accepts that a representative of GDF Suez had an informal discussion with a representative of the water licence administrator through the Regional Groundwater Management Committee about access to water. However, the Board does not accept that this discussion was all that GDF Suez ought to have done to deal with concerns around sourcing water. Equally, the Board does not accept that renewal of the groundwater licences held by the mine operators will automatically occur when they expire. The Board notes that the process for renewing a groundwater licence is more complex than an automatic renewal, as discussed in Part 3.3 of this report.

Mr Rieniets' evidence that AGL Loy Yang had assumed water would be available through its current entitlements, despite no discussions with the State, is of concern to the Board. This is particularly the case in light of Southern Rural Water's very recent correspondence to the Mining Regulator stating that 'there are a significant number of risks relating to the long-term availability of water for mine void filling.' The Board considers that the assumptions about access to water inherent in each mine's plan are merely that—assumptions. This approach is inadequate considering the fundamental requirement for large volumes of water to achieve the rehabilitation plans.

The Board considers that, notwithstanding that EnergyAustralia has undertaken the various studies in relation to water availability and access, and sought feedback from the Mining Regulator, there remain significant uncertainties. These uncertainties warrant further discussion between EnergyAustralia and the regulating agencies (DEDJTR and DELWP). As discussed in Part 7.3, the Board has received evidence from AECOM Services Pty Ltd that contradicts the water modelling relied upon by EnergyAustralia. The Board does not find that EnergyAustralia's information is incorrect—it merely notes that the Board cannot conclude that the position on water availability and access is resolved sufficiently enough to entitle the mine operators to cease actively seeking certainty.

The Board accepts that EnergyAustralia genuinely sought to engage with the Mining Regulator about this important issue. However, it remains concerned that EnergyAustralia has made no attempt to follow up its request since it wrote to the Mining Regulator in 2012. The Board accepts EnergyAustralia's submission that the Mining Regulator has the primary obligation to lead and facilitate discussions with respect to water, which arises under Action 6.8 of the Sustainable Water Strategy. However, the Board considers that the mine operators have a responsibility to have conversations about matters such as this that significantly affect their rehabilitation plans.

The Board rejects EnergyAustralia's submission that there is a lack of evidence to support the proposition that the issue of sourcing water should be further advanced at this stage. The Board notes that EnergyAustralia itself wrote to the Mining Regulator on 5 June 2012 describing the 'critical' need to have more certainty regarding access to water resources. The Board agrees that this need was critical in 2012. It is even more so in 2016.

The Board finds that given the central importance of access to water to fulfil their rehabilitation plans, the mine operators should have discussions with the water authorities as part of preparing those plans for approval by the Mining Regulator. As noted above, it recommends that the Mining Regulator engages with the mine operators and other relevant authorities to complete Action 6.8 of the Sustainable Water Strategy as soon as possible, and at the very latest by 31 December 2016.

10.6.3 ADEQUACY OF COMMUNITY ENGAGEMENT

Under the current regulatory framework there is an obligation to consult with, and listen to responses from, the community in respect to any activity that is authorised under a mining licence that may affect the community. Considering this, the level of community engagement in relation to the 2015 Loy Yang work plan variation, which limits public access to the mine site post-closure, was inadequate.

The Board does not agree with the submission of AGL Loy Yang that rehabilitation plans (which have a determining effect on the use of the land post mine closure) do not fall within the ambit of s. 39A of the Mineral Resources Act. The Board considers that the change in the proposed final lake level is the reason for the change in end use of the mine site, and therefore should have been the subject of consultation. The Board rejects the submission of AGL Loy Yang that its obligation to consult with the community about the approved 2015 work plan variation arises only after its approval.

The Board does not consider that it is sufficient for a licensee to rely on an Environmental Review Committee to convey information about changes that will affect Latrobe Valley residents to the broader community. This is inadequate community consultation. It is contrary to the duty imposed by s. 39A of the Mineral Resources Act.

The Board notes the suggestion by GDF Suez that the State should develop a 'strategic action plan' that includes an objective to ensure that 'the coal mine operators engage with local communities as an integral component of planning for mine rehabilitation.' The Board is not convinced of the need for this. The existing law already imposes such a duty on the mine operators. What is needed is for the operators to comply meaningfully with their duty and for the Mining Regulator to enforce such compliance. The Board's recommendations at Part 10.6.6 reflect this.

10.6.4 APPLICATION OF INDEPENDENT ADVICE

Relevant to the concerns about communication between the Mining Regulator and other relevant agencies, the Board notes that it has benefited greatly from the evidence of Professor Galvin, the current Chair of the Technical Review Board, as well as that of its former Chair, Adjunct Professor Sullivan, and members Professor Mackay and Ms Unger. The Board commends the Technical Review Board for its important role in providing robust and independent advice to the Mining Regulator.

The Board finds that the Mining Regulator has not adequately accessed or used the technical expertise that is available to it. This includes failing to sufficiently heed advice, such as the Technical Review Board's ongoing advice regarding stability, and Professor Galvin's and Southern Rural Water's advice regarding the 2015 Loy Yang work plan variation.

The Board considers that an independent expert advisory board, such as the Technical Review Board, is of fundamental importance to the success of mine rehabilitation. Its expertise must be respected, valued and appropriately used. Rehabilitation expertise, as currently contributed by Ms Unger, must be embedded in the Technical Review Board, so that rehabilitation and closure issues are part of the independent strategic advice provided to the Mining Regulator. The Board recommends that the Mining Regulator provide appropriate and ongoing resources to the Technical Review Board, particularly for the purpose of providing strategic advice on mine stability and rehabilitation.

10.6.5 REVIEW OF THE REGULATORY SCHEME

Some of the examples set out above demonstrate to the Board that the current regulatory scheme is ill-suited to contemporary needs. The legislation should be more concerned with ensuring that relevant risks are addressed by mine operators. The Board notes that the licence requirement to prepare and submit a Risk Assessment and Management Plan may go some way to achieving this outcome. In addition, the legislation should require that the Mining Regulator must act on the concerns of a referral authority, such as Southern Rural Water.

The evidence suggests a degree of passivity on the part of the mine operators in relation to seeking out answers to important questions such as sourcing water. Any criticism of the mine operators in this regard must be tempered by an understanding of the existing regulatory system. The mine operators have not failed to comply with the legislation in relation to their rehabilitation obligations through their conduct regarding issues of sourcing water. While the mines may be complying with their obligations, there is more that must be done to ensure rehabilitation is successful, and the regulatory framework should reflect that. This is clearly an area the State must address.

The Board notes the Mining Regulator's Action Plan identifies that the legislative framework will be reviewed. The Board recommends that improvements to legislation and subordinate regulations should address issues that have been raised throughout the Inquiry, such as the need for:

- definitions and criteria for progressive and final rehabilitation
- definitions and criteria for closure
- improved transparency and stakeholder engagement, including processes for referrals of work plans and work plan variations to relevant State agencies and referral authorities
- effective community consultation and engagement
- clarity regarding the roles of mine operators and the State in ongoing post-closure monitoring and maintenance
- clarity regarding the role and required skills and expertise of auditors of rehabilitation liability assessments and relevant accreditation processes (see Part 8.5.3).

The Board affirms DEDJTR's commitment to establish a Mine Fire Safety Unit to provide advice and lead regulatory, compliance and education activities related to fire safety. The work of the Unit will be supported by risk and fire experts who will provide a conduit between the Mining Regulator and best practice in other Australian jurisdictions. These initiatives, arising out of the 2014 Inquiry's recommendations, are welcomed.

The Board also affirms the commitments contained in the Mining Regulator's Action Plan to:

- Lead and strengthen its relationship with DELWP and other regulators (for example, the EPA and WorkSafe) to ensure information is shared, and there is consistency and cooperation in carrying out regulatory functions.
- Draft a guideline for providing clear information to industry about requirements under risk-based work plans.
- Build its operational technical capability by drawing on the Technical Review Board to provide more strategic technical advice.

- Implement risk-based mining work plans as required by recent changes to the Mineral Resources Act and the Mineral Industries Regulations.
- Establish a work plan assessment taskforce to identify relevant high risk sites to submit risk-based work plans.

The Board supports the Mining Regulator's commitment to expanding its sources of expert advice. It is important that the Mining Regulator's external technical expert panel is not conflated with the Technical Review Board, as the Technical Review Board's independence and ability to provide strategic, high-level advice is of great importance to the State. The Board strongly supports the online publication of the Technical Review Board's annual reports.

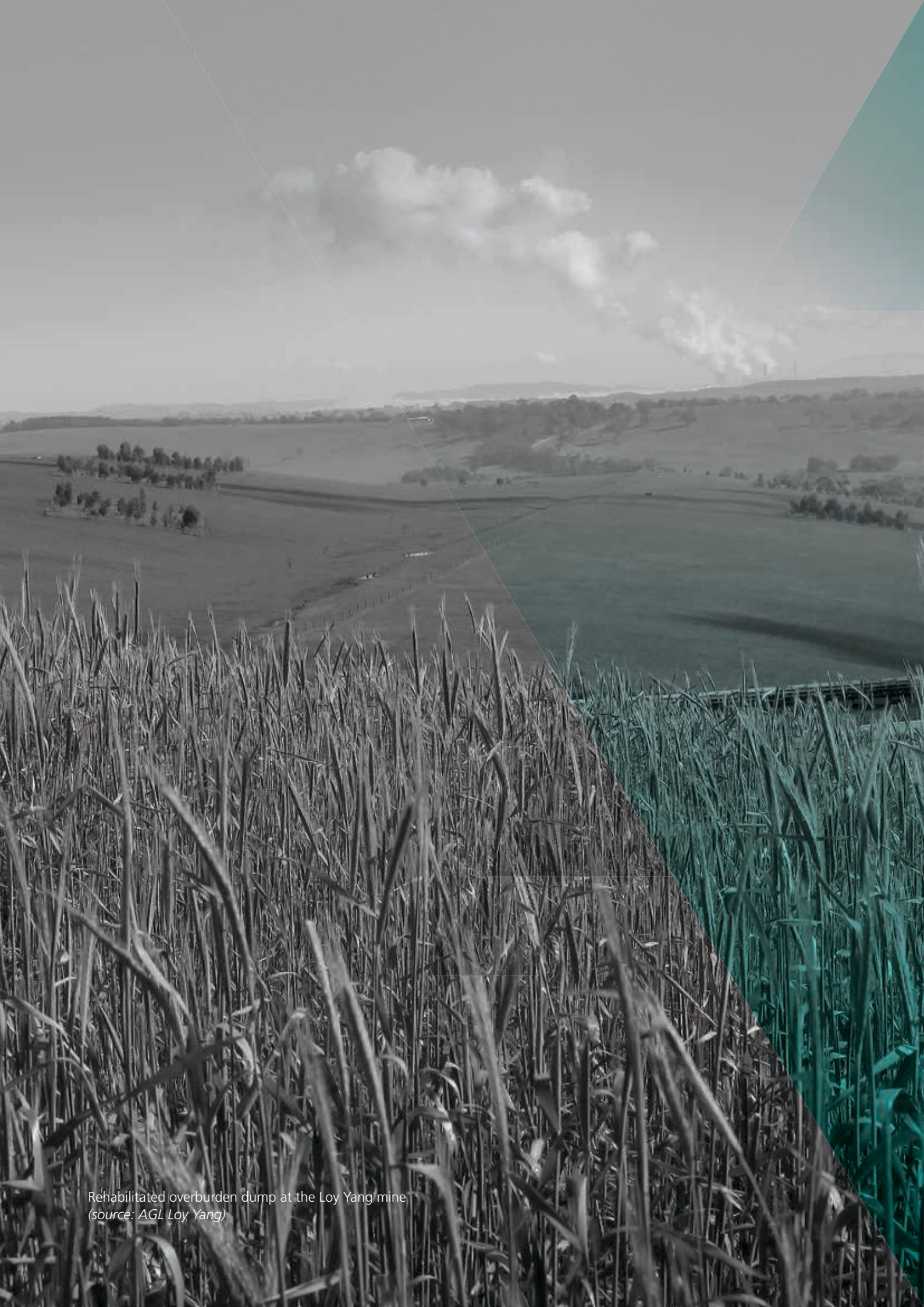
The Board notes that under the Mining Regulator's Action Plan, at least 50 of the highest risk mine sites in Victoria will be required to submit risk-based work plans. Considering the evidence the Board has heard regarding the risks and uncertainties in the Latrobe Valley mines, it seems highly likely that they will be part of this group. This initiative will require many of the deficiencies highlighted in the current work plans, such as sourcing water, to be addressed, and any identified remaining risks to be mitigated. The Board believes that this is an opportunity to resolve a number of issues. However, it is important that the Mining Regulator and the mine operators do not wait until risk-based work plans are introduced to begin addressing these issues—work to resolve them can commence now.

The Board recommends that by 31 December 2016, the State undertake Action 6.8 of the 2011 *Gippsland Region Sustainable Water Strategy*, to review the mines' rehabilitation strategies and consider impacts on groundwater and surface water resources.

The Board recommends that the State provide appropriate and ongoing resources to the Technical Review Board, particularly for the purpose of providing strategic advice on mine stability and rehabilitation.

The Board recommends that the State amend the *Mineral Resources (Sustainable Development) Act 1990 (Vic)* and the *Mineral Resources (Sustainable Development)(Mineral Industries) Regulations 2013 (Vic)* to address the issues that have been raised throughout the Inquiry, such as the need for:

- a dedicated Part of the Mineral Resources Act that exclusively regulates the Latrobe Valley mines
- definitions and criteria for progressive and final rehabilitation
- definitions and criteria for closure
- transparent processes for the referral of work plans and work plan variations to relevant State agencies and referral authorities, which compel the Mining Regulator to act on the advice received
- strengthened criteria for community consultation and engagement under s. 39A of the Mineral Resources Act and/or in community engagement plans
- clarity about the roles of the mine operators and the State in ongoing post-closure monitoring and maintenance
- clarity about the role and required skills and expertise of auditors of rehabilitation liability assessments and the auditor accreditation process (see the recommendations in Part 8).



Rehabilitated overburden dump at the Loy Yang mine
(source: AGL Loy Yang)