

PART ELEVEN
COORDINATION
AND COLLABORATION

PART 11 COORDINATION AND COLLABORATION

11.1 OVERVIEW

Each of the Latrobe Valley mines is complex and unique; however there are aspects of rehabilitation planning which are common to all. Increased collaboration and coordination between the mine operators, the Mining Regulator, experts, key agencies and the community, could improve mine rehabilitation outcomes in the Latrobe Valley. The Board considers that these issues are matters that are reasonably incidental to its Terms of Reference 8, 9 and 10 and that they are required to be addressed under Term of Reference 12. This Part looks at the ways in which such coordination and collaboration might be implemented and progressed as the Latrobe Valley mines approach mine closure.

This Part discusses formal mechanisms that could ensure that coordination takes place. The Board commissioned Jacobs Group (Australia) Pty Ltd (Jacobs) to conduct an independent review into mechanisms to coordinate rehabilitation. Jacobs' report, titled *Analysis of potential coordination and planning models for Latrobe Valley brown coal mines* (Jacobs coordination report),¹ examines three areas of government policy in disparate sectors, where different forms of coordinating structures are utilised.²

The Board heard from Ms Carolyn Cameron, Director of Cameron Strategies, one of the authors of the Jacobs coordination report, who gave evidence about the range of coordination models that could be applied for the purpose of coordinating rehabilitation in the Latrobe Valley. The Board also heard from the mine operators and technical experts about the types of matters that could be the subject of coordination and collaboration, and the need for, and likelihood of success of, a coordinating structure.

11.2 THE NEED FOR COORDINATION AND COLLABORATION

A consistent theme in evidence before the Board was the need for the Mining Regulator, mine operators, the Department of Environment, Land, Water and Planning (DELWP), the water authorities, expert bodies and planning agencies, to work better together to ensure that appropriate rehabilitation outcomes are achieved.³ Latrobe Valley resident Mr David Langmore told the Board that '[i]t's going to require a lot of good research, a lot of good planning, a lot of good coordination to do it well.'⁴ GHD's submission to the Board notes the need for a strategic and holistic approach to rehabilitation, including the development of a regional mine rehabilitation plan.⁵

The joint expert report records the need for coordination and planning in relation to materials management, water and climate change impacts, timing of mine closure, ensuring safe and stable final landforms, and transitioning to beneficial post mining land uses.⁶ Professor Rae Mackay, Director of the Geotechnical and Hydrogeological Engineering Research Group (GHERG), Federation University Australia, identified the importance of the Mining Regulator, key agencies and the mine operators working together to solve complex issues. An example of such an issue is the coordination of water allocations. As filling the lakes may affect groundwater and surface water in the region, Professor Mackay told the Board that he would expect to see the establishment of 'some sort of overarching coordinating group' to oversee this.⁷

Professor Jim Galvin, Chair, Technical Review Board, told the Board that the mine operators have traditionally approached research and sharing knowledge competitively, and that they 'were islands that didn't engage or share even the most basic information.'⁸ He also told the Board that since the establishment of the Technical Review Board in 2011, it is a 'completely different culture now',⁹ noting that:

[s]ince the 2011–2012 Annual Report of the [Technical Review Board] was provided to the Government, there have been some significant positive signs of changing culture in regard to managing mine stability in the Latrobe Valley. These include mines collaborating much more closely with each other on hydrogeological and geotechnical issues and demonstrating commitment to education and research. Some of this research has been directed towards rehabilitation issues.¹⁰

Mr Ronald Mether, Mine Manager at EnergyAustralia, told the Board that reports are not shared as a matter of course.¹¹ However, in their evidence, Mr Mether, Mr James Faithful, Technical Services Manager – Mine, GDF Suez, and Mr Stephen Rieniets, General Manager of AGL Loy Yang, indicated that, in general terms, sharing of information could provide benefits and they are happy to work with the other mine operators.¹² However, they each also qualified this by saying that knowledge sharing needs to be relevant¹³ and based on ‘elements that apply to us all’¹⁴ or ‘where there’s common issues.’¹⁵

GDF Suez submitted that:

[it] is unsurprising that there is considerable commonality in the issues facing each of the mine operators given similarities in operations and locational, geotechnical and hydrogeological setting. Considerable benefits can be derived by the sharing of experiences and research. An understanding of the wider context of the mines is also fundamental for planning closure strategies, particularly in relation to issues such as the availability of water and community engagement.¹⁶

Professor Mackay told the Board that he has observed a demonstrated commitment by the mine operators to examining a number of geotechnical and hydrogeological issues that have been raised by the Technical Review Board, particularly regarding stability.¹⁷ Professor Mackay suggested that, considering the significant body of research that needs to be undertaken, it would be of benefit if there was a greater level of knowledge sharing among the mine operators.¹⁸ He explained that:

[t]here are considerable benefits to be gained from establishing an open access knowledge management system and database that is accessible by all parties and into which all new data can be entered. This should integrate the existing databases held by government departments, the mines, the consultants and GHERG and should be maintained as part of a wider consortium agreement covering knowledge management and mine rehabilitation closure planning.¹⁹

EnergyAustralia submitted to the Board that it would welcome greater coordination about access to water, and research about common issues, for example stability issues, within the existing framework.²⁰ It further submitted that it is:

committed to working with fellow mine operators, regulatory agencies, Government and the local community to deliver a final land form that benefits the community...EnergyAustralia joins in the call for clear and coordinated decision-making as it progresses towards the implementation of the Lake Option...²¹

GDF Suez submitted that:

[t]here should be co-ordinated consultation between the three Latrobe Valley coal mine operators, and involving [the Department of Economic Development, Jobs, Transport and Resources], the water authorities, local government, the community and, where necessary and appropriate, the [Country Fire Authority], and other entities such as VicRoads.²²

11.3 COORDINATION MECHANISMS

The Jacobs coordination report states that proactive coordination is necessary when the following characteristics are present:

- Priorities and timeframes are unclear
- Stakeholder views are diverse
- Information bases and rules for decision making are contested
- There is a lack of clarity on preferred outcome(s).²³

The report states that these are characteristics of the rehabilitation of the Latrobe Valley mines, and that there is a 'need for coordinated planning, allocation of resources, implementation of actions and monitoring of rehabilitation progress.'²⁴

Jacobs identifies the primary functions of coordinating bodies as:

- Planning
- Delivery and implementation
- Information and reporting
- Performance management and continuous improvement.²⁵

Ms Cameron advised the Board that of these functions, the planning function would be the most important area of focus for the Latrobe Valley mines.²⁶ She advised that a coordinating body should not have a regulatory function, as 'regulatory assessments and approvals should remain at arm's length (to protect integrity and neutrality of the regulatory function) from entities with a policy development or coordination functions.'²⁷

Jacobs identifies three potential coordination models:

Self-governing: responsibility for internal relationships and managing engagement with external parties is accepted by a significant number stakeholders (if not all) and depends on their active, sustained involvement and commitment. There is no stand-alone entity accepting responsibility for overseeing the coordination program. Power is symmetrical and decision making is shared.

Lead agency: all major activities and decision making are coordinated through and by a single participating party. Coordination arrangements are "brokered". This model is best suited to resolving differences of opinion between stakeholders, such as where all are not fully committed to the same goals. It applies where trust is not shared but is centred on one or two organisational members.

Established authority: an independent entity is established specifically to govern the network and its activities, but sits external to the network. This model has a clear authorising legal framework. It is established either under legislation, by high-level governmental agreement or as a private legal entity.²⁸

The key structural attributes of these three models are shown in Table 14:

Table 14. Key structural attributes of potential coordination models²⁹

	Self-governing	Lead agency	Established authority
Authorising environment	Self-generated	Cabinet or Ministerial	Cabinet or Ministerial or Board of Directors
Legislative mandate	N/A	Work within existing legislation	Yes if public entity, no if private entity
Leadership and decision-making	Shared with elected or revolving chair drawn from membership	Rarely independent, usually appointed from the Lead Agency	Appointed Chair, independent of involved parties and funding entity
Structure and membership	Ad hoc structure, all affected parties involved	Distributed structure, with lead agency working on behalf of all affected parties	Hierarchical structure, nominated core with representatives from affected parties
Tenure	As long as shared objectives continue and trust is maintained	Long-term entity, oversees full implementation of plan	Finite – expires after certain outputs are achieved
Participation (collaboration, engagement, consultation)	Cooperation/collaboration among parties. Information sharing outside of the network requires collective approval	Coordination, with identified clearinghouse/information broker for the network	Overseen by independent entity, requires certain information to be produced and establishes rules for sharing/publishing information outside of the network
Funding	Membership levy or fees (financial or in-kind)	Funds provided by authorising environment (comes from relevant Department(s))	Can solicit funding from Government and/or private sector

Ms Cameron told the Board that the self-governing model is more ‘ad hoc’ than the other models, with shared power and accountability.³⁰ Under the lead agency model, there is structured decision-making that is transparent to all parties, using methods such as consultative forums and groups.³¹ The established authority model has the clearest terms of references and functional roles.³² However, Ms Cameron noted that the established authority model has a vulnerability in that political change can lead to it being defunded.³³

The Jacobs coordination report explains that, over time, different models will lend themselves to different aspects of the coordination work being undertaken, and that ‘the structure and tenure will most likely evolve based on the phase of the rehabilitation effort.’³⁴ Jacobs states that early high-level planning may be best undertaken using a self-governing model, while detailed planning, resolution of technical issues and identification of final land uses, could suit a lead agency. Physical implementation might best fit an established authority model.³⁵

Ms Cameron emphasised the importance of a leader to provide clarity, stability and transparency, and inspire confidence. She noted that this leadership function is much more difficult within the self-governing model.³⁶

11.4 COORDINATION MODELS

The Board heard evidence about various existing models of coordination.

One example is the established authority that coordinates coal mine rehabilitation in Germany. The Joint-Governmental-Agency for Coal Mine Rehabilitation acts on behalf of the federal government and the provincial states in Eastern Germany where the coal mines are situated.³⁷ It has been tasked with coordinating rehabilitation of these mines, the responsibility for which passed to the government after the reunification of East and West Germany in 1990.³⁸ Dr Friedrich von Bismarck heads the Joint-Governmental-Agency. He told the Board that the Agency has been involved in the rehabilitation and monitoring of approximately 52 large-scale mines.³⁹ The Joint-Governmental-Agency's role includes prioritising the filling of lakes according to factors such as water availability.⁴⁰

The Jacobs coordination report identifies similar issues that need coordination in the Latrobe Valley—for example, coordinating 'regional water resource goals and studies to inform...allocation and management planning...'.⁴¹ Ms Cameron noted that she considered the role of the coordinating body to be informing water allocation and management, rather than doing the work of the water authorities.⁴²

Ms Cameron told the Board that a Commissioner is another example of an established authority.⁴³ Commissioner roles are generally established by a state or federal government to focus on a particular area or issue. Commissioners' roles vary—for example, current Commissioners in Victoria have a range of functions, such as industry oversight, complaint resolution, continuous improvement, auditing, reporting, or inquiring into particular issues.⁴⁴

Ms Cameron identified examples of existing Commissioner models in Victoria, the Australian Capital Territory (the Commissioner for Sustainability and the Environment), and in Queensland (the GasFields Commission). She stated that it is important that Commissioners have clear terms of reference.⁴⁵

Table 15 describes the roles and functions of existing Commissions and Commissioners, in areas of similar scope and/or complexity to the Latrobe Valley mines.

Table 15. Examples of Commissioner roles

Commissioner	Role	Functions
GasFields Commission Queensland	The Commission is an independent statutory body formed to manage and improve sustainable coexistence among rural landholders, regional communities and the onshore gas industry. The Commission is comprised of a chair and six part-time commissioners, and is not subject to outside direction. ⁴⁶	<ul style="list-style-type: none"> • Reviews legislation and regulation • Publishes factual information • Identifies and advises on coexistence issues • Convenes parties to resolve issues • Promotes research to address knowledge gaps • Advises government and industry • Community engagement⁴⁷
Emergency Management Commissioner (Vic)	The Commissioner has overall responsibility for coordination before, during and after major emergencies, including management of consequences of an emergency. The role sits within the structure of Emergency Management Victoria, a statutory entity. ⁴⁸	<ul style="list-style-type: none"> • Coordinates the response to major emergencies • Coordinates management of the consequences of and recovery from major emergencies • Advises the Minister • Leads actions to improve operational standards, procedures and capability of emergency response agencies • Coordinates data collection and impact assessment processes⁴⁹

Commissioner	Role	Functions
Commissioner for Environmental Sustainability (Vic)	The Commissioner is an independent voice that advocates, audits and reports on environmental sustainability in Victoria, ⁵⁰ including the overall condition of areas such as air quality, biodiversity, coastal waters, inland rivers and streams, land, and climate change. ⁵¹	<ul style="list-style-type: none"> • Reports on the condition of Victoria's natural environment • Encourages decision making that facilitates ecologically sustainable development • Enhances knowledge and understanding of issues relating to ecologically sustainable development and the environment • Encourages Victorian and local governments to adopt sound environmental practices and procedures⁵²
Commissioner for Sustainability and the Environment (ACT)	The Commissioner's role is to ensure regular and consistent reporting on environmental matters and progress towards ecologically sustainable development by the ACT and ACT authorities. ⁵³	<ul style="list-style-type: none"> • Investigates complaints about the management of the environment by the Territory or a territory authority; and issues relating to ecologically sustainable development in the ACT • Conducts investigations as directed by the Minister • Conducts on the Commissioner's own initiative, investigations into actions of an agency where those actions would have a substantial impact on the environment of the ACT • Delivers <i>State of the environment reports</i>⁵⁴
Commission for Children and Young People (Vic)	The Commission promotes continuous improvement and innovation in policies and practices relating to the safety and wellbeing of children and young people generally, and in particular those who are vulnerable; and the provision of out of home care services for children. It is comprised of a Principal Commissioner and a Commissioner for Aboriginal Children and Young People. ⁵⁵	<ul style="list-style-type: none"> • Advises the Ministers, departments and services • Promotes child-friendly and child-safe practices • Promotes the interests of vulnerable children and young people • Monitors the implementation and effectiveness of strategies • Reviews, reports and educates on legislation • Investigates and reports on out of home care services • Conducts inquiries into major issues and incidents⁵⁶

These Commissioners are statutory positions established by legislation.⁵⁷ Each has nominated powers, such as the power to require information from government or other entities;⁵⁸ to require others to consult with them around key decisions;⁵⁹ to establish advisory bodies and committees;⁶⁰ to publish information;⁶¹ and to enter premises to carry out investigations.⁶² They each produce public reports, including annual reports,⁶³ special reports on investigations⁶⁴ or major reports such as the *State of the environment reports*.⁶⁵

Counsel Assisting submitted 'that there is a present need for a coordinating structure to exist outside of government' (that is, an established authority), with a focus on ensuring the Mining Regulator's Action Plan is progressed, necessary research is undertaken, and the mine operators work collaboratively to develop an integrated rehabilitation plan and share knowledge.⁶⁶

Counsel Assisting submitted that 'a Commissioner for the Rehabilitation of the Latrobe Valley Coal Mines' was an option for coordination, however 'it may be thought that, at least presently, there is insufficient need to justify' establishing a Commissioner's role, noting that it may become more necessary as mine closure approaches.⁶⁷

The mine operators accepted the need for greater coordination but questioned the need for a new body to be established. Mr Rieniets stated: 'I would welcome the coordination, but I don't see that it needs to be a new body. There are sufficient bodies in place already that could pick up on that aspect.'⁶⁸ Mr Methers stated: 'I don't think it needs to be new bodies, but we would certainly welcome coordination.'⁶⁹ Mr Faithful agreed.⁷⁰

GDF Suez submitted that the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) and Coal Resources Victoria, despite having failed to take a leadership role in the past, should be responsible for coordinating 'engagement between the relevant groups', rather than another organisation or department duplicating this function.⁷¹

In contrast, Environment Victoria submitted that there is a need for a 'new, purpose built body, set up under legislation, with appropriate and adapted functions and powers [that] would be the most effective vehicle for undertaking the coordination of the review of end of life concept plans and rehabilitation plans.'⁷² It suggested that the role of the body should include the 'review of the end of mine life concept plans, including facilitating community engagement' and commissioning relevant research.⁷³ Environment Victoria further suggested that the body should have an independent board, with relevant expertise, with a strong leader as chair,⁷⁴ and that the body should be supported by legislation describing its roles and powers.⁷⁵ It submitted that Coal Resources Victoria is unsuited to performing the required functions, as its role as a promoter of the coal industry presents a conflict of interest.⁷⁶

11.5 BOARD'S DISCUSSION AND CONCLUSIONS

It is important that activities relating to rehabilitation planning for the Latrobe Valley mines are effectively coordinated. As discussed throughout this report, the mine operators face a number of challenges in effectively rehabilitating the Latrobe Valley mines. Addressing these challenges requires collaboration between the Mining Regulator, other government departments and agencies, the mine operators, researchers and the broader community. As identified in the Jacobs report, coordination is necessary when there is a lack of clarity and diverse views regarding priorities, timelines, decision-making and preferred outcomes, as is evident in relation to the rehabilitation of the Latrobe Valley mines.

The Board accepts the evidence of the experts that coordinated planning and management is required for the complex issues of stability, water, materials, climate change, closure timing, and final land use. As Professor Mackay noted, issues such as lake filling and water allocation are interconnected between the three mines, and could have far-reaching implications if not adequately resolved. The Board does not consider that the mine operators will be able to address these issues alone. Coordinated planning involving the Mining Regulator and water authorities is needed to ensure the best outcomes for the mines and the Latrobe Valley more broadly.

The Board accepts that there are clear benefits from sharing knowledge between the mine operators. The Board welcomes the advice of Professor Galvin that there have been some improvements in the ways that mine operators share research findings, but notes that the mine operators have some reluctance to share all relevant information. Considering the many common elements of the mines and the sheer volume of research that will be required in the short-term, it will be highly advantageous if the mine operators increase the amount of research findings that they share. The Board acknowledges that there will be elements of research that are site-specific.

The Board recognises the benefits of Professor Mackay's recommendation to establish an open access database that captures this research for the benefit of the mine operators and researchers. GHERG is the obvious vehicle for this, considering its present role as a repository for knowledge on the Latrobe Valley mines. GHERG will no doubt continue to play a key role in resolving some of the uncertainties that have arisen throughout this Inquiry, and could be further utilised by the mine operators and the State to share research findings in the coming years. The Board encourages the State to make available, to the mine operators and other key stakeholders, all research that it conducts.

The Board recognises and affirms the mine operators' support and commitment to increase coordination and collaboration between themselves and the regulatory authorities. While acknowledging that some of the issues each mine faces are site-specific, the Board believes that the many areas of common uncertainty call for further collaboration. This will increase the likelihood of resolving complex issues, as well as reducing duplication of effort between the mines.

11.5.1 THE NEED FOR A NEW COORDINATING BODY

Considering the range of areas that require greater coordination, their potential regional impacts, and the diversity and competing priorities of the organisations that are involved, the Board finds that there is a need for a new coordinating body for mine rehabilitation in the Latrobe Valley.

The Board notes that, aside from the Mining Regulator and Coal Resources Victoria, there are several agencies and authorities that are involved in some way with the Latrobe Valley mines—for example, the Hazelwood Mine Fire Implementation Monitor and Inspector-General of Emergency Management (who oversee the implementation of the 2014 Hazelwood Mine Fire Inquiry recommendations), the Emergency Management Commissioner (who chairs the Latrobe Valley Coal Mine Fire Taskforce), and the Technical Review Board. The Board notes that the proposed external technical expert panel that is to be established under the Mining Regulator's Action Plan will also play a role relevant to the Latrobe Valley mines. The Board does not consider that any of these agencies or authorities satisfy the criteria needed for a successful coordinating body, for reasons such as a lack of independence, insufficient expertise, or inadequate resourcing.

The Board has considered the three models that were presented by Jacobs as potential coordination mechanisms. It is concerned that the self-governing model may not ensure that contentious rehabilitation issues are resolved, and that there will be insufficient accountability and transparency. The lead agency model has the potential to duplicate or obscure member agencies' roles. The Board notes that the obvious lead agency is the Mining Regulator, but accepts Ms Cameron's advice that a coordinating structure should remain at 'arm's length' from the regulatory function. The Board also accepts Environment Victoria's submission that Coal Resources Victoria is not well placed to lead coordination due to perceived conflict of interest. Therefore the Board accepts that neither the Mining Regulator, nor Coal Resources Victoria, are appropriate agencies to lead this coordination role. The lead agency model is therefore not suitable.

The Board accepts Jacobs' evidence that the established authority model will provide the greatest 'authorising environment', have the capacity to consult with the community and key stakeholders, and be able to play a brokering role between agencies. The Board recommends that the State should use an established authority mechanism to coordinate the rehabilitation planning and implementation for the Latrobe Valley mines.

11.5.2 THE LATROBE VALLEY MINE REHABILITATION COMMISSIONER

The Board accepts the advice of Ms Cameron that the mechanism must be able to evolve over time and have strong leadership, independence and well-defined functions. A Commissioner model is a clear example of an established authority mechanism with the necessary elements of leadership, independence and a defined statutory role.

The Board recommends that the Mining Regulator establish a Commissioner for Latrobe Valley Mine Rehabilitation (the Commissioner), as a statutory appointment under an amendment to the *Mineral Resources (Sustainable Development) Act 1990* (Vic) (Mineral Resources Act). The Commissioner should be an independent role that leads and coordinates planning and improvements to mine rehabilitation in the Latrobe Valley, and have necessary expertise in mine rehabilitation. The Board considers that the Commissioner should have an office based in the Latrobe Valley.

The Commissioner's role and functions could include providing periodic advice to the Minister for Energy and Resources; providing publicly available periodic reports; and having powers to compel the State, mine operators and other prescribed entities to produce information. The State should be compelled to consult with the Commissioner about all work plan variations, and about the development of policy, legislation or regulation relating to mine rehabilitation in the Latrobe Valley.

The Commissioner could have a key coordination role relevant to several of the issues and recommendations raised throughout this report, such as:

- Coordinating adequately funded and timely research, initially through coordination of the development of an integrated research plan (see the recommendation in Part 6 of this report).
- Coordinating knowledge sharing, by working with mine operators to share research findings and identify other opportunities to transfer learnings about mine rehabilitation.
- Coordinating the establishment of closure criteria, and processes for assessing the mines' rehabilitation against the closure criteria. This will involve working in collaboration with the Mining Regulator, the mine operators, water authorities, Latrobe City Council, key experts and the community.
- Working with mine operators and Latrobe City Council to improve community engagement. This could include coordination or support of community education so that there is an enhanced understanding of potential final land uses; processes for community consultation regarding work plan variations; and working with Latrobe Valley residents to create a regional community vision for the rehabilitated mines.
- Coordinating the development of a regional mine rehabilitation plan.
- Conducting inquiries into significant and persistent issues, for example, issues related to sourcing water or barriers to progressive rehabilitation.

It is important that the Commissioner's role does not unnecessarily duplicate that of the Mining Regulator, the Hazelwood Mine Fire Implementation Monitor, the Emergency Management Commissioner, the Inspector-General for Emergency Management, Coal Resources Victoria, the Technical Review Board or the external technical expert panel that is to be established under the Mining Regulator's Action Plan. However, the Commissioner should work closely with each of those entities, the mine operators and with the Latrobe Valley community in undertaking its role.

The Commissioner's role should be in place until such time that it is superseded by the Latrobe Valley Mine Rehabilitation Authority, as discussed below.

11.5.3 THE LATROBE VALLEY MINE REHABILITATION AUTHORITY

The Board is aware that as the mines near closure, there will be greater complexities and priorities that will need to be addressed. The Board considers that mine closure will require a commensurate increase in coordination and oversight. The Board recommends that the State establish a statutory body, such as a Latrobe Valley Mine Rehabilitation Authority (Statutory Authority) to replace the Commissioner.

The Statutory Authority should be established well in advance of the first mine closing, so that it can effectively plan and prepare for mine closure. However, as discussed in Part 2.2.5, there are a range of factors that could result in one or more of the mines closing prior to their planned date. This presents difficulties in accurately predicting the date at which the Statutory Authority should be introduced. The Board recommends that the State establish the Statutory Authority by 2026, six years prior to the first mine closing. However the Statutory Authority should be established earlier should one or more of the mines close prematurely.

The Board considers that the Statutory Authority's responsibilities should include those of the Commissioner, with increased or additional focus on:

- Planning for post-closure monitoring and maintenance, including clarifying roles and financial obligations for the mine operators and the State.
- Identifying processes for community and key stakeholder input into the assessment of rehabilitation against closure criteria.
- Addressing key issues that arise as a result of final rehabilitation, such as the effect of one mine flooding on the aquifer system and the dewatering needs of the other mines.
- Monitoring water availability and conducting regional water modelling that more accurately estimates pit lake fill times.

The Board accepts Ms Cameron's evidence that established authorities (such as the Commissioner or the Statutory Authority) are vulnerable to political change, and their tenure can be cut short. The complexities and significance of the Latrobe Valley mines mean that the success of their rehabilitation must not be unduly impacted by changes in government. This is not just an issue for the mines—it is an issue for the Latrobe Valley community, the broader community, the environment and the State. If it is not solved now, there are very real risks that if manifested, could have repercussions that are felt for generations.

The Board considers that the Statutory Authority must have ongoing tenure until all mines have been successfully rehabilitated, and monitoring and maintenance of the Latrobe Valley mines is no longer required. It is foreseeable that this could be decades after the last mine has closed.

The Board recommends that by 30 June 2017, the State establish an independent Latrobe Valley Mine Rehabilitation Commissioner, until the Statutory Authority is established under the following Recommendation. It should be a statutory appointment by amendment to the *Mineral Resources (Sustainable Development) Act 1990* (Vic) with the following core functions relevant to mine rehabilitation:

- Advising the Minister, State and industry on a range of matters, including policy, legislation and regulation.
- Monitoring the implementation and effectiveness of strategies.
- Undertaking strategic audits of State departments and mine operators.
- Conducting investigations into significant issues with powers to obtain information.
- Coordinating parties to resolve outstanding issues.
- Promoting and coordinating research to address knowledge gaps, as contained in the recommendation in Part 6.
- Sharing and publishing information including research findings.
- Undertaking public education and community engagement.
- Publishing an annual report.

The Board recommends that the State establish an independent Latrobe Valley Mine Rehabilitation Authority, as a statutory body by amendment to the *Mineral Resources (Sustainable Development) Act 1990* (Vic), to commence no later than 2026, or earlier in the event of premature closure of one of the Latrobe Valley mines. The Statutory Authority's responsibilities should include those of the Commissioner, with increased or additional focus on the following:

- Planning for post-closure monitoring and maintenance, including clarifying roles and financial obligations.
- Identifying processes for community and key stakeholder input into the assessment of rehabilitation against closure criteria.
- Addressing key issues that arise as a result of final rehabilitation.
- Monitoring water availability and conducting regional water modelling that more accurately estimates pit lake fill times.

The Board recommends that the State consult with the Commissioner and subsequent Statutory Authority about all work plan variations for the Latrobe Valley coal mines, and the development of policy, legislation and regulation relating to mine rehabilitation in the Latrobe Valley.



Mine rehabilitation trial site at the Loy Yang mine
(source: AGL Loy Yang)

PART TWELVE
RECOMMENDATIONS,
AFFIRMATIONS AND
COMMENDATIONS

PART 12 RECOMMENDATIONS, AFFIRMATIONS AND COMMENDATIONS

Rehabilitating coal mines is essential for creating safe, stable and non-polluting landforms that can be used for other beneficial purposes into the future. Without successful rehabilitation, the Latrobe Valley community may be left with worked out mines that pose risks to the public and local infrastructure—from fire, land and mine instability, issues with water quality, and impacts to the environment. Planning and implementing effective rehabilitation now will have positive impacts for generations of Latrobe Valley residents.

During this Inquiry, the Board heard from a range of experts and witnesses who provided insight into the key issues about rehabilitation, from geotechnical and hydrogeological aspects through to regulatory issues and community engagement.

Under Term of Reference 8, and based on current knowledge, the Board finds that a pit lake is the most viable rehabilitation option for each mine, with lake depths varying by mine. This aligns closely with the mines' current rehabilitation plans, with the Yallourn mine intending to create a fully filled lake, and the Loy Yang and Hazelwood mines planning partially filled lakes.

The Board considered the pit lake option against the criteria in Term of Reference 9, to assess whether the option is sustainable, practical and effective for each mine. A definitive assessment is not possible because of the many areas of uncertainty, such as mine stability, sourcing water, water quality and fire risk. To be confident that the pit lakes are achievable, these uncertainties need to be resolved through research and trials, preferably in the short-term. The knowledge gained from these investigations may result in another rehabilitation option being assessed as the most viable option for one or more of the mines. Evolving community expectations might also influence which option is seen as the most attractive.

The Board has particular concerns about mine stability, sourcing water and water quality, considering the huge volume of water required to fill the mines under the mines' rehabilitation plans, and the very significant potential impacts to the community and the environment if these issues are not addressed in the short to medium-term. The Board finds that DEDJTR and DELWP have failed to address the key issue of sourcing water. The Mining Regulator has also failed to heed the advice of experts and State agencies regarding sourcing water and stability. The Board finds that the mine operators should have been more proactive in ascertaining their likely access to water for flooding the mines at the end of mine life.

The Board concludes that a significant amount of research must be conducted into these issues to provide certainty about the rehabilitation options. This must be done in the short to medium-term and in a coordinated manner.

In answering Term of Reference 10, the Board has been disadvantaged by the State's Rehabilitation Bond Review Project being incomplete. However, the Board has taken into account the information obtained from the completed parts of the Bond Review Project to assess the mine operators' 2014–15 rehabilitation liability assessments, the current rehabilitation bond system and alternative financial assurance mechanisms that could be employed.

Based on the information before the Board, it cannot determine whether the rehabilitation liability assessments completed by the mine operators in their 2014–15 Annual Activity and Expenditure Returns (Annual Returns) are adequate or inadequate.

The Board concludes that the current rehabilitation bond system is ineffective because the Mining Regulator:

- has set bond levels based on an assessment of risk of default together with past conduct and expected future conduct. This is contrary to the Mining Regulator's current Bond Policy, which requires 100 per cent of the rehabilitation liability assessment to be paid as a bond
- has not provided transparent reasons for not increasing the bond levels, despite there being increases in assessments of mine operators' rehabilitation liabilities.

The Board finds that an effective rehabilitation bond system requires the Mining Regulator to:

- Amend its Bond Policy, insofar as it relates to the Latrobe Valley mines, to reflect its practice of assessing risk of default and the conduct of the mines when setting bond levels.
- Provide the mine operators with clearer guidance on the structure, content areas and methods (manner and form) for the conduct of rehabilitation liability assessments pursuant to s. 79A of the *Mineral Resources (Sustainable Development) Act 1990 (Vic)* (Mineral Resources Act).
- Require the mine operators to regularly engage auditors to audit their estimated rehabilitation liability assessments pursuant to s. 79A of the Mineral Resources Act.
- Ensure that the required skills and expertise of s. 79A auditors, and the processes for accreditation, are appropriate, and if not, review the regulatory requirements and that process.
- Conduct periodic reviews of the Latrobe Valley mines' bond levels with respect to rehabilitation liability assessments provided in the mine operators' Annual Returns.

In the meantime, while the Board's recommendations are being implemented, the Board concludes that the Minister for Energy and Resources should consider increasing, on an interim basis, the existing bonds to provide greater security to the State. The Board considers that the rehabilitation bonds should be increased to an amount representing at least 50 per cent of the mine operators' estimated rehabilitation liabilities. For the Yallourn and Hazelwood mines, this should be based on their rehabilitation liability assessments provided in their 2014–15 Annual Returns. For the Loy Yang mine, it should be based on the indicative rehabilitation liability estimate for the 2015 Loy Yang work plan variation.

Throughout this Inquiry, it became evident to the Board that there were a range of issues incidental to Terms of Reference 8, 9 and 10 that may impact the likelihood of successful rehabilitation of the Latrobe Valley mines. These were considered by the Board under Term of Reference 12, which requires it to review issues that are reasonably incidental to the Inquiry's Terms of Reference.

The Board finds that the current regulatory system is ill-equipped to solve complex problems regarding rehabilitation. An effective regulatory system requires:

- transparency
- role clarity
- systematic processes
- clear definitions and criteria (including for progressive and final rehabilitation and closure)
- timelines and milestones
- stakeholder engagement and community consultation
- monitoring and review processes.

Independent expertise and advice is essential to addressing rehabilitation issues in the Latrobe Valley. The Board finds that the Technical Review Board should be resourced to provide ongoing strategic advice.

The Board finds that more collaboration and coordination between the mine operators, the State, and other key stakeholders, is fundamental to achieving successful rehabilitation of the Latrobe Valley mines. The Board concludes that an independent coordinating structure is required, which can ensure that the necessary changes occur and are maintained in the long-term.

The Board finds that community engagement by the mine operators should be improved. In particular, Latrobe Valley residents should be informed about rehabilitation plans, and be part of an ongoing conversation about the future vision for the rehabilitated mines.

Based on these findings, the Board makes the following 19 recommendations, three affirmations and one commendation.

12.1 RECOMMENDATIONS

The Board's recommendations take into account the issues raised in Parts 5 to 11 of this report.

The term 'State' is used broadly to encompass the Victorian Government and the Victorian public service.

12.1.1 STATE OF VICTORIA

The Board recommends that the State:

RECOMMENDATION 1

Empower the Hazelwood Mine Fire Implementation Monitor, in a legislated role independent from the Victorian public service, to:

- oversee the implementation of these recommendations and the commitments made by the State and the mine operators during this Inquiry for the next three years
- report publicly on an annual basis on the progress made in implementing the recommendations and commitments for the next three years.

RECOMMENDATION 2

Redress gaps in expertise by employing or engaging suitably skilled and experienced personnel in mine closure and rehabilitation liability assessments, and obtaining regular advice and guidance from the Technical Review Board.

RECOMMENDATION 3

Provide appropriate and ongoing resources to the Technical Review Board, particularly for the purpose of providing strategic advice on mine stability and rehabilitation.

RECOMMENDATION 4

Increase the rate of progressive rehabilitation by developing milestones within the mines' progressive rehabilitation plans in consultation with the mine operators and the Technical Review Board, and require the successful achievement of the milestones.

RECOMMENDATION 5

By 31 December 2016, specify the manner and form of rehabilitation liability assessments for use by the Latrobe Valley mine operators in their 2016–17 rehabilitation liability assessments and future assessments.

RECOMMENDATION 6

By 31 December 2016, review whether the criteria for accreditation of auditors under s. 53S of the *Environment Protection Act 1970* (Vic) are appropriate having regard to the necessary skills and expertise required to conduct an audit under s. 79A of the *Mineral Resources (Sustainable Development) Act 1990* (Vic). If necessary, the Mineral Resources Act and the accreditation process should be amended to ensure appropriately qualified auditors can be engaged for s. 79A audits.

RECOMMENDATION 7

Require that the 2016–17 rehabilitation liability assessments provided by mine operators are conducted in accordance with the requirements developed under Recommendation 5.

RECOMMENDATION 8

By 30 June 2017, require each of the Latrobe Valley mine operators to engage an auditor, under s. 79A(3) of the *Mineral Resources (Sustainable Development) Act 1990* (Vic), to certify that its 2016–17 rehabilitation liability assessment has been prepared in accordance with the rehabilitation liability assessment guidelines (as per Recommendations 5 and 7); to certify that the assessment is accurate; and pursuant to s. 79A(4) of the Act, to forward a copy of the certificate to the Minister for Energy and Resources.

RECOMMENDATION 9

By 30 June 2016, request the Minister for Energy and Resources to consider the sufficiency of the existing rehabilitation bonds pursuant to s. 80(4) of the *Mineral Resources (Sustainable Development) Act 1990* (Vic) having regard to this report and any other relevant material.

- If the Minister for Energy and Resources deems the existing rehabilitation bonds insufficient, the Minister should consider increasing the rehabilitation bonds on an interim basis to at least:
 - Yallourn mine: \$34.25 million
 - Hazelwood mine: \$36.7 million
 - Loy Yang mine: \$56 million

The interim increase should be undertaken in accordance with s. 80(4) of the Mineral Resources Act.

- If the Minister deems the existing rehabilitation bonds sufficient, the Minister should publish a statement setting out the reasons for that conclusion on the website of the Department of Economic Development, Jobs, Transport and Resources.

RECOMMENDATION 10

Upon completing the Bond Review Project, review the bond amount required by the mine operators. This should take into account the mine operators' 2016–17 rehabilitation liability assessment, conducted in accordance with Recommendations 5, 7 and 8 and the findings of this Inquiry. The Minister for Energy and Resources should then require the mine operators to enter into further rehabilitation bonds, if the rehabilitation bonds are deemed to be insufficient.

RECOMMENDATION 11

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.

RECOMMENDATION 12

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.

RECOMMENDATION 13

By 31 December 2016, 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.

RECOMMENDATION 14

By 30 June 2017, establish an independent Latrobe Valley Mine Rehabilitation Commissioner, until the Statutory Authority is established under Recommendation 15. It should be a statutory appointment by amendment to the *Mineral Resources (Sustainable Development) Act 1990* (Vic) with the following core functions relevant to mine rehabilitation:

- Advising the Minister, State and industry on a range of matters, including policy, legislation and regulation.
- Monitoring the implementation and effectiveness of strategies.
- Undertaking strategic audits of State departments and mine operators.
- Conducting investigations into significant issues with powers to obtain information.
- Coordinating parties to resolve outstanding issues.
- Promoting and coordinating research to address knowledge gaps, as contained in Recommendation 18.
- Sharing and publishing information including research findings.
- Undertaking public education and community engagement.
- Publishing an annual report.

RECOMMENDATION 15

Establish an independent Latrobe Valley Mine Rehabilitation Authority, as a statutory body by amendment to the *Mineral Resources (Sustainable Development) Act 1990* (Vic) to commence no later than 2026, or earlier in the event of premature closure of one of the Latrobe Valley mines. The Statutory Authority's responsibilities should include those of the Commissioner, with increased or additional focus on the following:

- Planning for post-closure monitoring and maintenance, including clarifying roles and financial obligations.
- Identifying processes for community and key stakeholder input into the assessment of rehabilitation against closure criteria.
- Addressing key issues that arise as a result of final rehabilitation.
- Monitoring water availability and conducting regional water modelling that more accurately estimates pit lake fill times.

RECOMMENDATION 16

Consult with the Commissioner and subsequent Statutory Authority about all work plan variations for the Latrobe Valley coal mines, and the development of policy, legislation and regulation relating to mine rehabilitation in the Latrobe Valley.

RECOMMENDATION 17

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 Recommendation 6).

12.1.2 MINE OPERATORS

The Board recommends that the mine operators:

RECOMMENDATION 18

By 31 December 2016, develop an integrated research plan that identifies common research areas and priorities for the next 10 years, to be reviewed every three years. The plan should be developed in consultation with the Mining Regulator and relevant agencies, research bodies and experts. The list of research topics identified in Part 6.11 can be used as a starting point for discussion. The Commissioner and Statutory Authority should promote and coordinate this research (see Recommendations 14 and 15).

RECOMMENDATION 19

Increase the rate of progressive rehabilitation by achieving milestones within the mines' progressive rehabilitation plans, as set by the Mining Regulator under Recommendation 4.

12.2 AFFIRMATIONS

During this Inquiry, the State and the mine operators committed to actions related to mine rehabilitation. The Board affirms:

- The commitments of EnergyAustralia, GDF Suez and AGL Loy Yang to increase coordination and collaboration between themselves and the regulatory authorities.
- The commitments of the Mining Regulator contained in the *Earth Resources Regulation 2015–16 Action Plan* to:
 - lead and strengthen its relationship with the Department of Environment, Land, Water and Planning and other regulators (for example, the Environment Protection Authority 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 (which will most likely include the Latrobe Valley mines)
 - establish a Mine Fire Safety Unit to provide advice and lead regulatory, compliance and education activities related to fire safety.
- The commitment of the Mining Regulator, the mine operators and research groups to progress key studies such as the Mine Batter Stability Project at the Yallourn mine and the Loy Yang mine rehabilitation trials.

12.3 COMMENDATIONS

The Board commends the work of the Technical Review Board, in particular its provision of robust and independent advice to the Minister for Energy and Resources and the Department of Economic Development, Jobs, Transport and Resources on mine stability and rehabilitation.



Bucket wheel excavator
(source: Department of Economic Development, Jobs, Transport and Resources)