



**Final Report** Project 1.3

# Mapping the Regulatory Framework of Mine Closure

May 2022

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#### STATEMENT OF ACADEMIC INDEPENDENCE

We, the authors, were greatly assisted in the preparation of this Regulatory Mapping Report and Case Studies by the Steering Committee named above. The Steering Committee provided helpful feedback on our project plan, drafts of the three stages of the Report and the drafts of the three case studies.

We also received considerable assistance from independent consultants who provided feedback on drafts of the report and case studies; Dr Meredith Gibbs, Mr Robert Milbourne and Ms Revel Pointon. We also thank Adjunct Professor Peter Glazebrook of the Sustainable Minerals Institute, The University of Queensland, for his generous assistance.

The assistance of Steering Committee members and consultants is very much appreciated, as is their recognition of our academic independence. The views in the draft Report and the Case Studies are our own, as are any errors.



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# Executive Summary

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The goals of this project are to present:

- an open and accessible description of three current Australian regulatory frameworks (law and policy) for mine closure, including rehabilitation and repurposing through to relinquishment of mine production tenure and management of residual risks to the environment and community;
- a comparative analysis of the significant differences between the regulatory frameworks of the three Australian jurisdictions - Queensland, Victoria and Western Australia; and
- recommendations for future research to identify leading regulatory practice and potential reforms to those regulatory frameworks to achieve regulatory harmonisation within jurisdictions and nationally.

This Report maps three current Australian regulatory frameworks (that is, the law and policy) for mine closure. It sets out the topography of the regulatory frameworks for mine closure in three Australian State jurisdictions (Queensland, Victoria and Western Australia) and notes the Commonwealth interaction with the State frameworks. The Report presents an informative regulatory map in practical steps and gives comparative analyses to identify the varied regulatory approaches and to identify the potential regulatory gaps and barriers to effective, efficient and equitable mine closure. The comparative analyses also help to pose key questions for future research that can identify leading regulatory practice and the potential for reforms to achieve regulatory excellence in mine closure. The Report contains critical analysis of some law and policy but it does not attempt to resolve conundrums or recommend reforms.

In approaching this project, we acknowledge that there have already been significant relevant regulatory reforms over the past ten years. Indeed, the Mining Amendment Bill 2021 (WA) introduced into the Western Australian Parliament on 20 October 2021 contains some relevant significant reforms to issues addressed in this Regulatory Mapping Report. The Report explains the effect of historical propositions and acknowledges significant legal and policy reforms but it does not attempt a full history of the relevant law and policy.

Our aim is to make this regulatory map accessible to all interested government, industry and community stakeholders, as well as to interested members of the general public. We have used footnote references to identify our sources for stating legal and policy propositions while also making the text more readable without the interruption of references. There are various figures and tables to summarise relevant laws and policies and present overviews of complex regulatory structures and concepts.

As mentioned, the Report is limited to an assessment of the regulatory frameworks of Queensland, Victoria and Western Australia, with a note of their interaction with the federal jurisdiction of the Commonwealth. These jurisdictions have been selected for their prominent and diverse mining industry experiences that yield varied and valuable examples of relevant regulatory concepts, goals, institutions, instruments and procedures.

Our research was conducted, and this Report proceeds, in three stages:

1. Core concepts, goals and institutions, including the constitutional foundations – chapters 1, 2 and 3;
2. The main instruments and procedures applied to the regulation of mine rehabilitation and closure at the stages of pre-operation, during operation and post-operation – chapters 5, 6 and 7, with an introductory chapter 4 outlining core concepts and themes applied to the Stage 2 explanation and analysis and a brief concluding chapter 8 (the Iluka spotlight); and
3. The regulatory experience of government, industry and community participants in the mining industry – chapter 9.

Chapter 10 is the summary of our research findings and future research recommendations.

Laura Hamblin and Alex Gardner are the authors of the Stages 1 and 2 parts of the Report, and Yvonne Haigh conducted the research interviews and wrote the analysis for Stage 3 of the Report.

The Report is accompanied by three additional case studies of regulatory challenges in relation to mine closure, published as stand-alone reports:

- a. the Pilbara State Agreements regime, written by Dr Natalie Brown;
- b. the Ensham Coal Mine, written by Lauren Downes and Alex Gardner; and
- c. the Latrobe Valley coal mines, written by Lauren Downes, Laura Hamblin, Alex Gardner and Elda Poletti.

The primary focus of our regulatory mapping attention is the operation of the key ‘mineral resources’ and ‘environmental protection’ laws and policies. It is this legislation and accompanying guidelines and policies that define and utilise the key concepts, engage with the most important institutions, and deploy the most important regulatory instruments. The key instruments that you will encounter in Stage 2 are the duties of mine operators to present with their mining proposal a mine closure and rehabilitation plan and to provide at the grant of resource tenure adequate financial security for the fulfilment of their rehabilitation commitments. Much of the Stage 2 discussion expounds on the key rights and duties of mining proponents, community members and government in relation to the operation of the laws and policies in respect of these two key instruments. The main regulatory concerns that proceed from the administration of these two key instruments relate to community engagement rights, ongoing transparent rehabilitation planning and implementation, clear process and criteria for determining resource tenure relinquishment following certification of rehabilitation, identification of residual risks and options for post mine operations, including government step-in powers and responsibilities for legacy and abandoned mine sites.

It is important to understand the historical and prospective operations of laws in order to comprehend the current regulatory framework of mine rehabilitation and closure, including progressive rehabilitation as the defining premise of contemporary policy. It is also necessary to understand the intersections in the legal landscape, as mining and environmental laws intersect not only with water resources and land use planning laws, but also with a diverse cross section of native title, heritage, corporate, tax, health, labour relations, and local government legislation, among others. Mine rehabilitation and closure is also inevitably affected by extra-legal influences, both national and international, including a growing role for international soft law standards adopted by the mining industry. Necessary limitations on scope mean that this Report considers only law and policy that directly contemplates mine closure, being mining and environmental law and, where relevant, insights into the laws relating to water resources, contaminated sites, land use planning and public health. However, to the extent that other areas of law may arise, the Report identifies questions that may need to be considered in further research. A significant gap that we identify as needing further research is a legislative framework for addressing the social transition of mining communities in regions where there are pressures for significant long-term changes in the mining economy, such as the impacts on coal mining communities being driven by climate change policy and law.

We emphasise that this Report is limited to a discussion of the law and policy regulating the risk of harmful long-term and potentially irreversible or perpetual impacts of mining activity. It does not cover the regulation of routine minerals exploration and production. Mine closure is a rapidly evolving area of law in demand of specific attention. As a result, at the time of writing there are relevant cases and legislative amendments before the courts and parliaments. Whilst we have done our best to canvas the growth and adaptation occurring in mine closure regulation, our focus is on the law and policy current at the time of writing, noting that changes are expected to occur after publication. Our report is generally current to December 2021.

Chapter 10 summarises the key findings of this regulatory mapping report and lists the recommendations for future research. In brief, our key findings and the most significant directions for future research are as follows:

**Chapter 1** defines core concepts used in the regulation of the mine life cycle that are relevant to the task of achieving mine closure and provides a glossary of key terms. We distinguish a set of ‘established core concepts’ and ‘evolving concepts’, identifying that there are inconsistent definitions and usages of these concepts, including in legislative provisions. Significantly, the evolving concepts of ‘transformation and transition’ refer to the environmental, economic and social changes effected through mine closure and provide the context for two significant new concepts that have arisen but lack clear regulatory guidance: *repurposing* of mine assets and land forms and *social transitions* in communities where mine closure greatly impacts levels and types of employment opportunities and social services.

### 1.1 – 1.3 Future Research Point

We found that there are several core concepts that are central to the discussion of mine closure but for which there are uncertain and inconsistent definitions and usages? For example, ‘rehabilitation’, ‘restoration’, ‘remediation’, ‘relinquishment’ and ‘residual risk’ have been given specific definitions in some scholarly literature but the terms are not used consistently in legislation and in some industry and government commentary and grey literature. It would help to survey the varied uses of these terms and related concepts across Australian literature and legislation in all Australian jurisdictions and to develop consistent Australian definitions for them with recommendations for the legislative reforms to implement those definitions.

A related aspect of this research will be collating the terminology applied to define the various forms of resource tenures that authorise mineral exploration and production and the associated regulatory authorisations required for implementing those core legal concepts for mine closure. This research can build on the initial glossary of terms compiled at section 1.4.

**Chapter 2** explores the goals and aspirations for mine rehabilitation and closure. It summarises the key legislation of the Commonwealth and each of the three State jurisdictions; Queensland, Western Australia and Victoria to ascertain the legal expression of those goals and the potential future directions for mine closure policy and regulation. We found that the Commonwealth has legislative powers that it may exercise in relation to mine closure but that its relative lack of regulatory experience with mine closure may lead to the conclusion that the Commonwealth has not yet articulated specific and clear goals in respect of mine closure.

### 2.1 Future Research Point

There are significant questions about the current role of the Commonwealth in relation to the regulation of mine closure and what that role should be in the future. In this report, we have been able only to sketch an outline of the key federal leadership powers that the Commonwealth may exercise in relation to mine closure. We could not consider the detail of the Commonwealth-State interactions in relation to regulation of mine closure or what role the Commonwealth has taken in the Territories, where its powers are greater. Neither have we been able to consider the regulatory experience of the Commonwealth in exercising its powers under the *Environment Protection and Biodiversity Conservation Act 1999* to set approval conditions for mine closure. Future research may explore the current and future roles of the Commonwealth in mine closure planning and in ensuring that mine rehabilitation is achieved and mining communities assisted in the social transition that mine closure brings?

In contrast, the States' legislation for mine closure is far more developed in giving effect to objectives of achieving progressive rehabilitation and mine closure and avoiding financial risks for State governments.

#### 2.2 – 2.4 Future Research Point

While the goals of mine closure regulation are clearer in the State regimes, the clarity and coherence of the expression of those goals varies between the three States reviewed. Only Victoria has a clear statutory statement of an objective that "land which has been mined is rehabilitated". While all three States are developing principles of progressive rehabilitation and closure of mines and securing financial provisioning to ensure effective mine closure, future research on these goals could seek to ascertain what importance lies in the clear statutory expression of goals pertaining to mine closure.

**Chapter 3**, Figure 3.1, gives a simple overview of the range of governmental and non-governmental institutions to be found in each jurisdiction reviewed. While there is a discernible high-level pattern to the broad character of these institutions and the constituting legislation, as well as applicable common law principles, there is significant variation in the detail of the arrangements in each jurisdiction. For example, that is illustrated by the differences in the format of bodies that may hear applications for and objections to the grant of mining leases or licences and environmental authorisations.

For instance, Queensland has a Land Court that can hear such applications and objections for the grant of both mining leases and environmental authorisations in an integrated process. The procedures and capacities of the Land Court apply (apparently) equally to decision-making in respect of both instruments and the Land Court makes recommendations to the different relevant decision-makers. The Land Court can also exercise certain judicial functions, such as determining disputes over compensation.

In contrast, the Western Australian Warden's Court hears applications and objections for mining leases and can determine certain legal disputes in relation to mining ventures, including compensation of affected landholders, but it has no decision-making function in relation to environmental authorisations other than in so far as objectors may argue for mining lease conditions that protect the land and environmental values that may also be regulated under other legislation, such as pollution control and access to water resources regulated by another agency, in relation to which the Warden's Court has no real jurisdiction. The other key institution is the Environmental Protection Authority, which manages environmental impact assessment but with a function limited to advising on environmental factors. There is not the same opportunity as in the Queensland Land Court to weigh transparently the competing economic, social and environmental factors. Instead, that role vests only in the Ministers or senior officers who simply issue the instruments and do not need to give reasons.

The structure and roles of the Victorian regime of institutions are different again. While there is a mining warden with modest functions, and certain appeal functions are vested in the Victorian Civil and Administrative Tribunal, the key public consultative process is the environmental effects inquiry and report conducted by an ad hoc panel that culminates in advice informing the Planning Minister's recommendations to the ultimate decision-makers issuing the mining licence and other instruments needed for a project.

The outcomes of the procedures conducted by these institutions in each State may also be accredited to inform Commonwealth decision-making under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). We have not had the opportunity to research and assess the accreditation criteria and evaluate how it is that such different institutional designs can meet the Commonwealth's accreditation criteria and how this may affect decision-making about mine rehabilitation and closure.

It is important to understand each State's institutional framework in approaching Stage 2 of the report, which explains in detail the procedures for mine closure planning, rehabilitation and transition. At this stage, it is not feasible to suggest research questions that may be pursued distinctively in relation to the

institutions; it is better to incorporate the institutional arrangements into a research consideration of the extensive procedures explored in Stage 2. The exception to that could be to pursue research on the Commonwealth accreditation of State procedures for environmental impact assessment to identify the core criteria of those accreditation decisions.

### 3.1 – 3.6 Future Research Point

It is important to understand each State's institutional framework in approaching Stage 2 of the report, which explains in detail the procedures for mine closure planning, rehabilitation and transition. At this stage, it is not feasible to suggest research questions that may be pursued distinctively in relation to the institutions; it is better to incorporate the institutional arrangements into a research consideration of the extensive procedures explored in Stage 2. The exception to that could be to pursue research on the Commonwealth accreditation of State procedures for environmental impact assessment to identify the core criteria of those accreditation decisions and whether they may inform design criteria for State institutions.

**Chapter 4** introduces Stage 2 of the Report, which focuses on mapping the frameworks of regulatory instruments and procedures for mine closure and rehabilitation in each of the relevant jurisdictions (Western Australia, Queensland and Victoria), identifying the variations in their design across the three jurisdictions. The chapter outlines six themes for comparative analysis and gives an introductory overview the regulatory frameworks of each of the three States. It presents only one future research question in respect of the role of State Agreements in Western Australia, because there is not much discussion of them in the chapters that follow yet there are important questions around the transparency and accountability of mine closure procedures under these agreements and whether the operation of Part IV of the *Environmental Protection Act 1986* (WA) (EP Act) provides a sufficient regulatory framework.

#### 4.2.1 Future Research Point

The potential for future research on the role of State Agreements and the extent to which they can or should be used in the future for new projects should be addressed in light of the Pilbara Agreements case study. The research planning could open with questions around the transparency and accountability of mine closure processes and whether the operation of Part IV of the EP Act provides a sufficient regulatory framework. Similarly, there could be questions whether new laws for mine closure planning, rehabilitation and relinquishment should apply equally to State Agreements as to other forms of mining tenure.

**Chapter 5** considers how each jurisdiction promotes and regulates mine closure planning and rehabilitation through the minerals resource tenement application process and any other approvals processes that are required before minerals production (mining) can commence. It does this in three stages:

- Mine closure planning – process and criteria for presenting and endorsing a mine closure plan,
- Financial security for fulfillment of a rehabilitation and closure plan, and
- Community engagement rights during mine closure planning.

There are comparative summaries at each stage of the chapter and future research questions formulated across this detailed consideration of the issues. In overview summary, we found the following.

All three States require a rehabilitation and closure plan to be presented and approved before mining operations can begin, but there are significant differences in the law and policy means for regulating those requirements. Queensland spells out the procedures and community consultation rights in detailed

legislation (statute and regulations, as well as guidelines) that require approval of the Progressive Rehabilitation and Closure Plan and Schedule as part of the Environmental Authority (EA) administered by the Department of Environment and Science (DES) under the *Environmental Protection Act 1994* (Qld) before the resource tenure may be issued. Western Australia and Victoria require the rehabilitation and closure plan to be approved, often with environmental impact assessment, after the resource tenure is issued and before work begins, but differ greatly in the level of legislative definition in the requisite procedures and the ultimate legal effect given to the resultant rehabilitation and closure plan. The Western Australian regime, being defined by 'statutory guidelines', lacks enforceability and, perhaps, legal credibility. There is, arguably, an additional source of legal credibility in the Queensland system in that the rehabilitation and closure plan is incorporated into the EA administered by the DES.

The three States also differ on the financial security provisioning. While all three have a history of the inadequate use of bonds to cover the costs of rehabilitation if the resource tenure holder fails to fulfil its commitments, Western Australia and Queensland have developed systems of pooled rehabilitation funds composed of annual contributions based on estimated rehabilitation liabilities; the Mining Rehabilitation Fund (MRF) in WA and the Financial Provisioning Scheme (FPS) in Queensland. Both States retain bonds or financial assurances for high-risk mines, with the Queensland system again being the more sophisticated. Victoria retains only a reformed bonds system, with the exception that the Latrobe Valley coal mines are subject to additional levies for mine stability and the contribution to the Declared Mine Fund recently created to meet the additional costs of the enhanced regional rehabilitation strategy. Queensland has also recently created a 'residual risks fund' to pay for estimated additional public costs that may arise after relinquishment, which is discussed further in chapter 6.

All three States define rights and procedures for community consultation on rehabilitation and mine closure planning, and much less so on financial security. Again, in Queensland, the detailed legislative provisions of the *Environmental Protection Act 1994* (Qld) integrate with the procedures of the *Mineral Resources Act 1989* (Qld) to secure robust opportunities for community engagement. Neither the resource tenure nor the EA incorporating the Progressive Rehabilitation and Closure Plan (PRC Plan) may be granted until there has been a full community consultation process that involves effective notice, opportunities to make submissions, rights to object to draft decisions and have the objections to both instruments determined simultaneously and independently in Land Court proceedings that lead to public reasoned recommendations to the respective decision-makers, who must consider them. Victoria and Western Australia provide less secure rights of community engagement that are administered primarily through the mining legislation (unless environmental impact assessment is required), with the Western Australian regime being considerably weaker because almost the entire process is defined by statutory guidelines of dubious legal effect that relegate community engagement to lease holder responsibility with merely bureaucratic oversight.

A further factor in the transparency of the rehabilitation and closure plan process is what happens to the approved plan. In Western Australia, a Mine Closure Plan (MCP) is published in the Department of Mining, Industry Regulation and Safety Minedex website that is generally accessible to the public, with exemptions from publication for commercially confidential material. In Queensland, EAs and the progressive rehabilitation and closure plans are publicly available on a public register established under the Environmental Protection Act. Victoria similarly maintains a mining register on which are recorded the basic details of licences, approved work plans and rehabilitation bonds, but not rehabilitation plans. Full copies of plans cannot be viewed or downloaded. Victoria's publication of Environmental Effects Statement and mining licence documents currently do not allow for especially easy access as there is no centralised database.

Finally, there is a gap in the explicit legislative framework for repurposing of mining assets in the transition to closure and tenure relinquishment. For example, the Victorian provisions use only the language of land rehabilitation whereas the Queensland provisions contemplate outcomes that are consistent with land use

planning schemes, which arguably provide more legal room for repurposing solutions. However, the legislation and guidelines are generally quiet on the terms for repurposing, perhaps because those ideas have emerged more lately in the mine closure conversation and are acted on more in the latter stages of operations, closure and rehabilitation.

Across the chapter, we formulated the following future research questions.

#### 5.2.1 Future Research Point

A future research question could be to review the content and effect of the Mining Amendment Bill 2021 (WA), especially what the reforms say about the making and legal effect of a “mine development and closure proposal”.

#### 5.2.2 Future Research Point

A future research question could be to review what the Queensland Land Court decisions have said about factors that the Land Court is required to consider in relation to mine closure and post-mine land use.

#### 5.2.3 Future Research Point

A future research question is whether the *Mineral Resources (Sustainable Development) Act 1990* (Vic) and Regulations provides for ‘repurposing’ of legacy mine infrastructure assets as an acceptable component of rehabilitation and how the residual risks of such repurposing may be addressed.

#### 5.2.3.2 Future Research Point

A future research question could investigate how effectively Victoria’s Environment Effects Statement (EES) process works in practice if it can be conducted prior to the actual legal procedures with which it is designed to be integrated and result in a recommendation from the Planning Minister before a proponent has formally submitted a mining licence application, let alone a works plan application. Could such a practice deprive participants in the EES process of the effective opportunity to review and comment on the formal works plan and rehabilitation plan proposal?

#### 5.2.4 Future Research Point

The contrasting regimes of mine closure and rehabilitation planning in the three jurisdictions raise some important questions about the institutional design features and the legislative definition of the relevant powers, procedures and instruments for that planning. What are the advantages and disadvantages of conducting procedures for mine closure planning at the same time as the grant of the resource tenure or after the grant of resource tenure, and by the same or separate government agencies? Similarly, what is the role of environmental impact assessment of mining proposals and mine closure and rehabilitation planning – how should be it conducted, by whom and with what ultimate legal effect? In evaluating these institutional questions, what difference does it make to provide the essential elements of those procedures and their outcomes in legislation (statute and regulations) as opposed to merely soft law instruments?

### 5.3 Future Research Point

It is currently unclear whether there is any beneficial difference to each State's method of rehabilitation liability calculation and financial assurance. There is more recent (2020) data on the efficacy of Victoria's financial assurance regime than those of Western Australia and Queensland, and it shows that the bond amounts were very inadequate and administration of the bond requirements frequently non-compliant with the law. There is a significant legislative gap in the Western Australian financial securities in relation to State Agreement mines. Collecting up-to-date data on the current administration of the financial assurance schemes would be a challenging research task without considerable co-operation from industry and government. The CRC could consider undertaking this task in a later round of research planning and align it with questions of landholder or community consultation on determination of financial security.

### 5.4.2 Future Research Point

The rights to comment and negotiate for native title holders are well recognised in law. A detailed analysis of the outcomes from the exercise of these rights in relation to mine closure planning was beyond the scope of this research project. Future research could consider how Traditional Owners may exercise their native title rights to negotiate about the effects of mine closure on their lands and how the exercise of those rights may interact with or be supplemented by the participation of Traditional Owners in the procedures for community engagement under resource tenure and environmental authorisation legislation.

### 5.4.4 Future Research Points

Section 5.4 has reviewed community engagement rights at the pre-mine operation stage of decision-making in three respects; rights to information and comment, rights to comment and negotiate (particularly for Traditional Owners), and acceptance of residual risk. A separate research question is posed at 5.4.2 in respect of the Traditional Owners' rights to comment and negotiate.

While each jurisdiction acknowledges the importance of community consultation and the recognition of residual risks, the legal rights and institutional structures for addressing these central issues in mine closure planning and rehabilitation vary significantly between the three jurisdictions. A comparison of the different approaches raises the following research issues.

- Should community consultation on mine closure planning occur at the same time as consideration of the grant of resource tenure or at a separate post-grant process considering a detailed mining proposal / work plan and mine closure plan? What is the appropriate form of community consultation on the level and form of financial assurance of rehabilitation obligations?
- What should be the legal rights for community and stakeholder participation in that process; is it enough to rely on a tenure holder's duty of community consultation and the regulatory agency's review or should there be an independent expert institution (e.g. Warden's Court / Land Court / ad hoc inquiry panel) to hear and determine objections to the mining proposal and closure / rehabilitation plan?
- Is it appropriate and feasible at this pre-mine operation stage to address the questions of post-mine rehabilitation residual risks and to ascertain or determine some level of community acceptance of post-mine land uses and residual risks?

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#### 5.4.4 Future Research Points

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- What is the appropriate form of legal instrument to record legally binding obligations of the mining proposal and closure plan and of community acceptance of residual risk; is it sufficient simply to have compensation agreements with private landholders directly affected, or is desirable and feasible to have a community agreement on the residual risks, perhaps recorded between the proponent, state authorities and local government?
- What is the appropriate role of environmental impact assessment in facilitating community consultation on mine closure planning and rehabilitation, especially where there are broad questions of public interest?

#### 5.5 Future Research Point

As explained in 1.2.5 above, the core meaning given to the term 'repurposing' is the adaptation of the concept of closure to include repurposing of mining assets to future non-mining uses instead of their removal and the rehabilitation of the mined area. However, the repurposing of mine assets or mined land forms may be presented as a part of rehabilitation.

There is a gap in the explicit legislative framework for repurposing of mining assets in the transition to closure and tenure relinquishment. For example, the Victorian provisions use only the language of land rehabilitation whereas the Queensland provisions contemplate outcomes that are consistent with land use planning schemes, which arguably provide more legal room for repurposing solutions. However, the legislation and guidelines are generally quiet on the terms for repurposing, perhaps because those ideas have emerged more lately in the mine closure conversation and are acted on more in the latter stages of operations, closure and rehabilitation. Various specific questions arise.

- What would repurposing provisions look like?
- What would they require to be included in the rehabilitation plan?
- How would the residual risks of repurposed assets be address?
- What would they require in terms of community engagement to identify the appropriate repurposing / future land use options?
- How would the repurposing process interact with land use planning laws? For example, would there be an expectation that the mining operator should ensure appropriate land use zoning for the location of the repurposed asset while the new asset owner would be responsible for obtaining any authorisations to adapt and use the asset?

**Chapter 6** considers ongoing obligations, rights and duties of government, mine operators and the community, relevant to mine closure, while the mine is in operation. It considers:

- Continual transparency requirements relevant to updated closure planning and implementation progress;
- Continual community engagement and community rights including local government;
- Clear process and criteria for determining relinquishment and any steps being taken towards evolving and clarifying that process.

We found that all three jurisdictions provide for these functions in some fashion but, as with the pre-mine operation stage, there are significant differences in the law and policy means for regulating these functions.

It bears briefly re-iterating that the *Mining Act 1978* (WA) applies a very flexible light regulatory touch by means of mine closure planning guided by statutory and non-statutory guidelines to approve regular three-yearly updates of the MCPs that gain legal effect from the suggested endorsement of a mining lease condition that mine rehabilitation must be implemented in accordance with the approved MCP. The sanction for not fulfilling the lease condition is the potential for mining lease forfeiture or a modest pecuniary penalty. The monitoring and reporting procedures are limited to the traditional annual reporting (especially on mining expenditure) and the also limited functions of annual reporting on existing mine land rehabilitation liabilities for the calculation of the annual levy paid to the MRF. There is no transparent means of reporting on the fulfilment of the commitments of an MCP and the community rights to information and comment on amendments to or fulfilment of MCPs are limited to the strategy for stakeholder consultation devised by the lease holder for approval in the three yearly updates of the MCPs. There are undoubted benefits here for lease holder flexibility but more troublesome questions about predictability, accountability and acceptance of residual risk for communities. Equally, the fluid relinquishment process with overarching requirements may seem adapted to a diverse mining industry but it could also demand a lot of negotiation at the time of closure to create measurable, attainable milestones. State Agreements are even less predictable again, being tailored to individual circumstances. The flexibility can create uncertainty of outcomes for community and industry alike, and leaves government potentially hesitant in how to exercise its authority. The issue of balancing certainty with flexibility is a constant regulatory difficulty.

Queensland's regulation of these functions is clearly the most legislatively detailed, independently administered, and legally forceful and transparent, in both the processes for providing information and in the legally expressed duties to fulfil the commitments and conditions of a PRC Plan and schedule re-enforced by the sanctions for non-compliance, which may be identified by the administering authority requiring a statement of compliance. No doubt the industry can point to the potential transaction costs of such a specifically regulated system, but there could be interesting research questions around the industry's perceptions across the other comparative themes of accountability, predictability and liabilities, including for residual risk.

In many ways the Victorian legislation provides the more readable legislative provisions, with a convenient identification of core decision-making powers in the MRSD Act and sufficient detail in the regulations for the various instruments to be prepared in fulfilment of the statutory duties. Victoria also provides a more flexible regime of enforcement by declaring broad statutory duties to be fulfilled but leaving the enforcement regime to the supplementary exercise of administrative discretion in the making of enforceable undertakings and compliance orders. The Victorian legislation, as outlined in chapter 5, relies on the statutory duty of community consultation imposed on the mining licensee and guided by a consultation plan to be prepared in accordance with the regulations. The licensee's statutory duties to consult the landowner and local municipal authority are simply and directly stated but the content of rehabilitation plans are private, not being required to be lodged on the public register of mining instruments.

Again, all three jurisdictions have specified quite clear procedures for determining relinquishment but Western Australia's requirements are spelled out in statutory and non-statutory guidelines of dubious legal effect that leave a high degree of uncertainty for industry and community alike and uncertain authority for government.

Ultimately, it is possible that a large amount of the mine closure planning undertaken pre-operation is adapted during operations. Whilst progressive rehabilitation is an optimal aspiration for government, industry and community stakeholders, it is possible that the bulk of mine closure conditions are negotiated in detail once operations cease and decommissioning begins.

We proposed the following research questions from sections 6.2, 6.4 and 6.5.

## 6.2 Future Research Point

The interaction between the rehabilitation of mine site voids to pit lakes and water law is a key part of creating viable closure plans across Australia. This includes the intersection with Native Title law and the impact of rehabilitating voids on traditional owners, as well as the intersection with pastoral regulation. How can these spheres of law be developed in a complementary way that allows for sustainable rehabilitation and accommodates an understanding of the realistic expectations of all parties over time interacting with the dynamic nature of the mining industry operating in an international market?

## 6.4 – 6.5 Future Research Point

Relinquishment and mine closure are processes that often occur progressively over decades. It is therefore necessary for the regulatory framework to balance more adaptable soft law with legislated requirements. The long-life cycle of many mines and the inherent lack of agility of a mine void demands realistic research on how flexible the industry can realistically be and what regulatory elements ought to be prioritised to achieve certainty and accountability. Where exactly does this balance lie when regulating for efficient relinquishment but safe, stable and sustainable landforms? Future research to help define that balance could consider the following.

- What are the key elements that would be needed to give both operators and regulators certainty that closure/rehabilitation/repurposing has occurred and relinquishment can take place?
- What would a model relinquishment process and criteria look like to balance industry and government perceptions of transaction costs v's other comparative themes of accountability, predictability and potential liabilities, including financial assurances for residual risk?
- What is the role of community consultation in determining relinquishment, including consultation with local government? Is it more than consultation?
- When would residual risks be transferred to the State?
- This research could review nationally and internationally relevant laws and relinquishment case studies in order to draft up model regulations/legislation for relinquishment. The International Energy Agency [work on carbon capture and storage](#) may be a good model to look at.

**Chapter 7** addresses what happens after the initial closure process has been completed, in that production has ceased and the mine has been decommissioned, and post-mining monitoring is assessing whether the rehabilitation has been successful enough to sustain an application for relinquishment. Both regulatory authorities and industry consider a key goal of mine closure and tenure relinquishment to be the absolving of liability for residual risks. Certainty surrounding residual risk liability can have positive impacts on the assessment of insurance costs and generate confidence for future environmental, social and economic management. In reality, some exposure to residual risks may persist past certification of relinquishment. Once relinquishment of the mining lease or mining licence has been achieved, both stakeholder rights and miner liabilities under the mining tenure cease, although common law rights and some other forms of statutory liability, discussed below, perpetuate. This is one of the greatest hurdles for the Australian regulatory framework and the future of the mining industry: how to reconcile the fact that stakeholders may continue to have their interests affected decades after any legislated rights have ceased effect.

To consider these issues, this section will use the following headings:

- Options for post closure management;
- Statutory mechanisms for addressing foreseen residual risks, including for re-purposed assets; and
- Common law mechanisms for addressing foreseen and, potentially, unforeseen residual risks.

This chapter has considered what options there are for post-operation management, especially to address potential shortcomings in rehabilitation through the corporate social licence to operate and government step-in powers. Before relinquishment, government may exercise its step-in powers to rehabilitate a site and cover the expense by a bond or other legal means of recovering the costs from the resource tenure holder. If there is land and water contamination, the contaminated sites legislation establishes a clear set of principles and procedures for identifying the contamination and allocating liability for remediation or, if no responsible party can be found, for transitioning that responsibility to government. There are also laws providing for the rehabilitation of legacy and abandoned sites, though little experience with using them.

We propose the following future research points.

#### **7.2.4 Future Research Point**

Notwithstanding that there are a framework of laws that may be applied to address foreseen or foreseeable residual risks, there are still gaps in understanding how the post-closure management process can work. Each of the three jurisdictions has some form of government step-in powers and government access to financial assurance funds to remediating abandoned sites. Future research may seek to draft model provisions for legislation for post closure management; for example, by drawing ideas from International Energy Agency Carbon Capture and Storage: Model regulatory framework. Such provisions will need to devise procedures and principles for identifying and allocating liability for residual risks. In identifying those residual risks, it may be opportune to evaluate how the mining laws compensation regimes operate to address the on-site and off-site harm caused over the life of the mine and beyond rehabilitation.

#### **7.3 Future Research Point**

How can land use planning regimes and mine relinquishment processes be better integrated to ensure that future repurposing of rehabilitated mine land can be achieved? How could third party/community rights of engagement/consultation be integrated across the rehabilitation plan/relinquishment process under the mining regime and the planning scheme amendment process? How are local councils best involved in this process and what guidance should come from the State level?

Also, a distinct regulatory gap exists for the regulation of repurposing of mine sites. It is generally conducted on a site-by-site basis and, whilst this allows for flexibility and individual circumstance, it neglects to provide clear outcomes for post-mining transition processes. What regulatory mechanisms could be employed to incentivise progressive transitions towards repurposed mine sites post-closure?

**7.3.5 Future Research Point**

Notwithstanding that there are a framework of laws that may be applied to address foreseen or foreseeable residual risks, there are still gaps in understanding how the relinquishment process can work. Future research may seek to draft model provisions for legislation on relinquishment and post closure management; for example, by drawing ideas from the International Energy Agency Carbon Capture and Storage: Model regulatory framework. Such provisions will need to devise procedures and principles for identifying and allocating liability for residual risks. In identifying those residual risks, it may be opportune to evaluate how the mining laws compensation regimes operate to address the on-site and off-site harm caused over the life of the mine and beyond rehabilitation.

**7.5(1) Future Research Point**

The common law causes of action are burdensome to pursue but can provide an important last resort for aggrieved communities suffering from unfulfilled rehabilitation commitments because the remedies can provide damages for loss and orders to do or refrain from taking certain actions. Future research could explore the expression of the mine operators' ultimate duty to rehabilitate as a statutory duty owed to the communities that surround or succeed the mine closure. This could open the way for the community to bring judicial proceedings for civil liabilities for a breach of statutory duty if the duties are not fulfilled and that leaves a legacy of harm.

**7.5(2) Future Research Point**

An area that is notoriously hard to regulate, and so often isn't, is the social transition that comes with closing and rehabilitating a mine site. Particularly in areas that have developed entire townships based on a mining community (as in Queensland's coal communities, for example) the need for collaborative closure that involves the community is critical. Research which explores how to guide this social transition through law and regulation will be valuable for these communities in decades to come. As the legislation will need to endure, an aspect of the research will be how to create heads of regulation making powers and policies (statutory and non-statutory) that can create the flexible means of updating legislation without statutory amendment by Parliament. Both forms of regulatory influence must be consistent with the terms of the statute but also facilitate the social licence to operate as a means of encouraging regulatory innovation.

**Chapter 8** presents the Iluka Case Spotlight, an interesting example of mine closure process in Western Australia.

**Chapter 9** presents the Stage 3 empirical study of the Regulatory Experience.

Both of these chapters can inform future research thinking but we have not formulated future research points from them.

Alex Gardner, Laura Hamblin and Yonne Haigh

4 April 2022

# Stage 1 Report

## Introduction to Stage 1

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Stage 1 of the Report aims to provide context and set the scope for the analysis of the regulatory instruments and procedures for mine rehabilitation and closure in Stage 2.

Stage 1 contains chapters 1 – 3 covering three topics:

- Key concepts used in regulation of the mine life cycle;
- Goals and aspirations for mine rehabilitation and closure; and
- Key institutions involved in the administration of law and policy-making.

There is often conflicting definition of terms within mining and so it is important to establish how common concepts will be used throughout this report. It is also necessary to frame the current goals and directions being set for mine closure because it helps define the scope of our analysis. Further, a broad understanding of the relevant governmental institutions and non-governmental organisations for each jurisdiction is important practical information about how the regulatory frameworks are applied and enforced.

## 1 Concepts used in mine life cycle regulation

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Many of the key concepts used in the discussion of mine closure have changed over time and are used inconsistently. This chapter provides a discussion of these key concepts and how they are used in this Report, as they relate to both historical perceptions of mine closure and contemporary ideas.

### 1.1 Established core concepts

#### 1.1.1 Mining

Mining refers to the process of extracting minerals from the Earth. This can be distinguished from some other extractive or excavating industries, in that mining in this Report refers to the collection of processes required to extract mineral-rich rock or ore, process the rock or ore to the stage that it is ready for export or refining. The mining industry refers to the business of extracting useful, valuable minerals from the Earth and selling them. Australia's mining industry is largely extraction-based, mostly exporting raw minerals with minimal onshore processing.<sup>1</sup>

#### 1.1.2 Mine closure

The definition of mine closure is continually evolving. It is unsettled, dependent on the circumstances and often disputed. It is used in various ways to describe a range of situations.

Traditionally, the term 'mine closure' has been used to refer to the point at which mining operations have ceased and the mine is being decommissioned, often because the asset is no longer considered profitable for

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<sup>1</sup> International Trade Administration, 'Australia – Country Commercial Guide' (Website, 2021) <<https://www.trade.gov/country-commercial-guides/australia-mining>>.

the operator.<sup>2</sup> The contemporary meaning may be broader, encompassing relinquishment as shown in Figure 1. A mine can be put into ‘care and maintenance’ rather than being entirely decommissioned (this is distinct from closure) or be ‘relinquished’ after being decommissioned and rehabilitated. A mine can also be legally ‘abandoned’ by an operator through forfeiture, surrender or expiry of the lease. All of those are types of ‘mine closure’. This can raise questions of the extent of closure liabilities of the new operator.

Mine closure can also be partial, where either one element of operations is shut down, or one part of the land ceases to be used for mining. Successful rehabilitation to the point of relinquishing the land back to the State is still unusual in Australia, but there are examples of closure, including examples of long-lived large-scale mines having successfully rehabilitated some areas which have been relinquished back to the State.<sup>3</sup>

Each of these concepts is now discussed further.

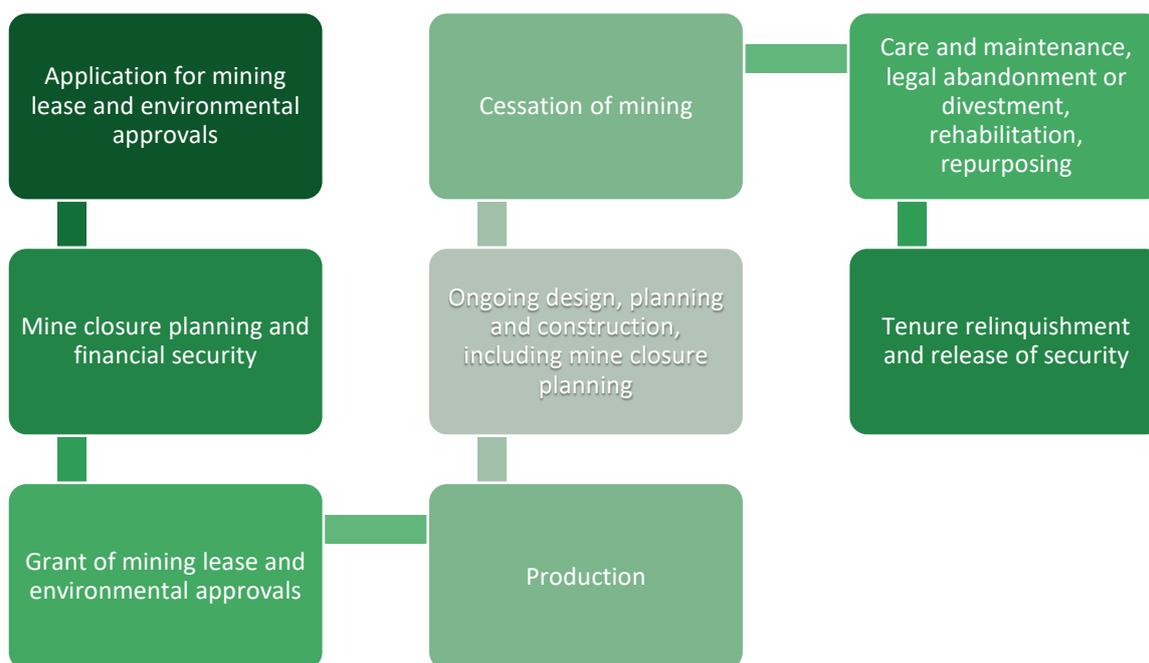


Figure 1.1 Simple representation of the traditional mining life cycle in Australia<sup>4</sup>

### 1.1.3 Abandonment

Historically, ‘abandonment’ has been used as a general term to refer to when there is no longer a mining operator holding a mining tenement over a mine site.<sup>5</sup> Today, literature often refers to ‘abandoned mines’ as those from which companies have walked away without meeting their closure obligations,<sup>6</sup> or sites that may originally have been secured but have since deteriorated and become unsafe and would not meet

<sup>2</sup> Ibid. See also Government of Western Australia, Department of Mines, Industry Regulation and Safety, “Mine Closure Completion Guideline”, November 2021, Figure 1, ‘Mine Closure Processes’, p 4.

<sup>3</sup> D Lamb, P Erskine and A Fletcher, ‘Widening gap between expectations and practice in Australian minesite rehabilitation’ (2015) 16(3) *Ecological Management and Restoration* 186.

<sup>4</sup> Minerals Council of Australia, ‘Mine rehabilitation in the Australian minerals industry’ (Industry Report, February 2016), Appendix A, 5.

<sup>5</sup> Queensland government, *Abandoned mine management in Queensland* (Web Page, 7 April 2021) <<https://www.qld.gov.au/environment/land/management/abandoned-mines/management>>.

<sup>6</sup> C Unger, ‘What should we do with Australia’s 50,000 abandoned mines?’ (2014), *The Conversation* <<https://theconversation.com/what-should-we-do-with-australias-50-000-abandoned-mines-18197>>.

modern standards of rehabilitation and closure.<sup>7</sup> These sites can present ongoing environmental and safety risks, as well as representing unutilised value in what the land might have been repurposed for.<sup>8</sup>

#### 1.1.4 Care and maintenance

‘Care and maintenance’ refers to non-operational mine sites which are being managed by companies without being fully decommissioned due to potential that operations on the site might be recommenced at some point in future – it is therefore distinct from mine closure.<sup>9</sup> During care and maintenance there is no production occurring and it is the responsibility of the lease holder to ensure that the site is safe and meeting any environmental requirements, though there is no requirement for rehabilitation.<sup>10</sup> Care and maintenance might be suitable where a company is having cashflow issues, or where a drop in the market is making production unprofitable but it is expected that operations will once again be profitable in future.<sup>11</sup> In practice, mines are often left in care and maintenance indefinitely where a company is unable or unwilling properly to rehabilitate the site, due to rehabilitation being significantly more expensive than simply maintaining the existing State of the site.<sup>12</sup> As will be considered in Stage 2 of this Report, care and maintenance has not historically been expressly addressed in legislation.

#### 1.1.5 Decommissioning

‘Decommissioning’ is a standard and largely uncontroversial aspect of mine closure. It involves the shutdown of operations and the removal of any structures or equipment that are not required to remain on the land for repurposing for a future non-mining use.

#### 1.1.6 Rehabilitation

Mine ‘rehabilitation’ typically refers to the process of repairing damage to the landscape caused by mining practices and operations.<sup>13</sup> Most contemporary conceptions of mine closure include a requirement to rehabilitate impacted land. At a minimum, the mine site must be made safe and the risk of structural collapse must be minimised.<sup>14</sup> However, regulatory standards for the definition of mine rehabilitation generally go further than mere physical safety and stability and include a requirement to rehabilitate the mine site to a level that will support future land uses.<sup>15</sup> The common standard of mine rehabilitation requires the land to be restored to its pre-mining State as much as possible, where there is no other beneficial restorative use.<sup>16</sup> The regulations may also permit mining infrastructure to be retained for future use by community members for non-mining purposes: please see the discussion of ‘repurposing’ below.<sup>17</sup> It is important to note that no existing legislated standards address reparations for damage to cultural sites, despite destruction of cultural sites being a common impact of mining activity.

Some of the common processes in modern mine site rehabilitation are:

<sup>7</sup> Government of Western Australia, Department of Mines, Industry Regulation & Safety, *Abandoned Mine Features* (Pamphlet) 2.

<sup>8</sup> Above n 4.

<sup>9</sup> Government of Western Australia, Department of Mines and Petroleum, *Care and Maintenance* (Pamphlet, September 2009) 1.

<sup>10</sup> Ibid.

<sup>11</sup> Above n 4.

<sup>12</sup> Above n 4, 191.

<sup>13</sup> Environment Victoria, *Mine rehabilitation* (Web Page) <<https://environmentvictoria.org.au/campaign/mine-rehabilitation/>>.

<sup>14</sup> Environmental Protection Authority, *Post-mining rehabilitation* (Government of Western Australia, Web Page, 2017) <<https://www.epa.wa.gov.au/focus/post-mining-rehabilitation>>; Queensland Resources Council, *Rehabilitation and Surrender* (Web Page, 2021) <<https://www.qrc.org.au/policies/rehabilitation/>>.

<sup>15</sup> Ibid.

<sup>16</sup> Above n 3; Queensland Resources Council, *Rehabilitation and Surrender* (Web Page, 2021) <<https://www.qrc.org.au/policies/rehabilitation/>>.

<sup>17</sup> Queensland Resources Council, *Rehabilitation and Surrender* (Web Page, 2021) <<https://www.qrc.org.au/policies/rehabilitation/>>.

- Designing and planning the appropriate landforms to be created from the mine site;
- Forming and levelling the peaks and pits created during mining;
- Revegetation of the land; and
- Identifying any toxic chemical residues and minimising any resulting risks for both water supplies and soils.<sup>18</sup>

The rehabilitation process must be tailored to each mine site and account for different regional land-use plans, such as for water catchment or agriculture. This makes it difficult for any regulator to set uniform standards; rather, regulators and industry bodies generally prepare comprehensive guidelines to assist companies in meeting the legal requirements in collaboration with authorities and local communities.<sup>19</sup>

There are also concepts related to the broad meaning of rehabilitation that have a more specific meaning that is not always appreciated, including in statutory drafting. For example, one may find ‘rehabilitation’, ‘restoration’ and ‘remediation’ used interchangeably in legislation for mine closure and management of contaminated or abandoned mine sites. Yet they may have distinctive meanings; ‘rehabilitation’ may refer to the repair of land for future human use; ‘restoration’ may refer to returning land to its prior natural ecological state; and ‘remediation’ may refer to cleaning up land contamination.<sup>20</sup> For the purposes of this Report, we adopt ‘rehabilitation’ as the broader term that may encompass the more specific terminology. It would help to develop consistent legal definitions of these concepts.

### 1.1.7 Financial Assurance – Early Practices

Recent Productivity Commission analysis reports that “[s]urety arrangements for rehabilitation generally have been inadequate, but are being strengthened”.<sup>21</sup> The use of bonds was common, whereby companies would pay an estimated amount, usually into a bank under surety to the government, before undertaking mining activity and the bond would be returned upon completion of rehabilitation.<sup>22</sup> Bonds covering the full cost of rehabilitation provide strong security for government and strong incentives to miners to rehabilitate. The issue with bonds was that the cost of conducting proper rehabilitation was significantly more than the value of the bond, so companies could accept the loss of the bond and avoid properly or completely rehabilitating the mine site.<sup>23</sup> The relevant State government could then be left with the associated liability of the mine site when the land was surrendered, or the mining lease forfeited.<sup>24</sup> The adequacy of bonds may still be an issue for many mines in a rehabilitation phase, as many of them were approved prior to modern legislation becoming operative.<sup>25</sup> We have not obtained current data on the number of mines still subject to bonds and the adequacy of those bonds.

### 1.1.8 Relinquishment

‘Relinquishment’ refers to the process by which the company relinquishes their rights to mining operations on the lease land and is no longer required to undertake any further rehabilitation or closure works.<sup>26</sup> An

<sup>18</sup> Above n 3.

<sup>19</sup> Above n 4.

<sup>20</sup> See L Downes and A Gardner, “Section 6a, Mine closure legal frameworks, regulation, and policy”, in R Young et al, *International Principles and Standards for the Ecological Restoration and Recovery of Mine Sites*, (2021) *Restoration Ecology Journal* (forthcoming).

<sup>21</sup> Australian Government Productivity Commission, *Resources Sector Regulation* (Productivity Commission Study Report, November 2020) 26.

<sup>22</sup> Above n 4.

<sup>23</sup> Above n 4.

<sup>24</sup> Above n 4.

<sup>25</sup> Above n 4.

<sup>26</sup> Department of Mines, Industry Regulation and Safety, *Statutory Guidelines and Mine Closure Plan Guidance - how to prepare in accordance with the Statutory Guidelines (WA)* 19.

important question is what form of legal authority does the regulator have to indicate satisfaction with the execution of the mine closure plan and the lease holder's surrender? In Stage 2 the detailed operation of these regulatory processes will be assessed. Overall, achieving total relinquishment is still uncommon in Australia.<sup>27</sup>

### 1.1.9 Residual risk

'Residual risk' refers to any ongoing threats or dangers presented by a mine site after it has been closed or is no longer in use.<sup>28</sup> These risks can cause cultural, economic, ecological, social or personal harm. Even after a company takes action to mitigate or manage known risks, there may be some that remain. This creates a risk that whoever is in control of the land post-mining may become liable for harm for which they were not directly responsible. Alternatively, there is a risk that the miner is never able to meet the legal requirements to completely discharge its liability for the relevant mining lease.

Residual risk can present in several forms, including for example:

- Waste rock. Mining produces waste rock which does not have a sufficient concentration of desired mineral and so will not be processed. Waste rock often contains sulfide minerals, which can oxidise; see chemical contamination below.
- Tailings. These are the materials remaining after the desirable minerals have been extracted from the soil and can present a risk where they are dumped.<sup>29</sup>
- Chemical contamination. This occurs where a hazardous substance causes land, water or air to become a risk to human health or the environment.<sup>30</sup>
- Acid and/or metalliferous mine drainage (AMD). This is where an outflow of acidic or metalliferous water from waste rock or tailings on a mine site, often due to the oxidation of iron sulfide, damages the composition of surrounding soil and water sources.<sup>31</sup> AMD is a particularly relevant example of residual risk that we will draw on throughout this Report. Its effects can take decades to present themselves and are often cumulative. It is difficult to assess how much AMD is or was caused by any particular mine, meaning that accurately or consistently assessing impact and the costs of that impact is not necessarily possible.
- Biological contamination. Mining activity can introduce invasive species and weeds to an area.
- Unstable slopes. These present a physical risk due to the destabilisation of the land and the potential for collapse.
- Pollution. This is a broad category that can encompass degradation of air quality, general mining rubbish and waste such as tyre dumps, and other forms of damaging output.

<sup>27</sup> Senate Standing Committees on Environment and Communications, Parliament of Australia, *Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities* (20 March 2019).

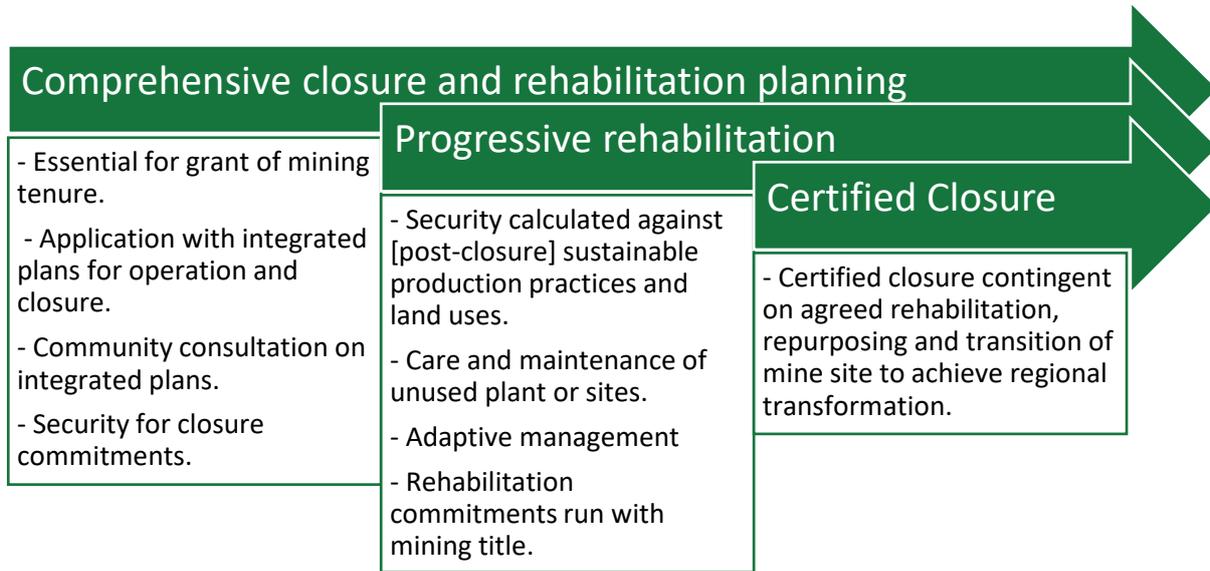
<sup>28</sup> Department of the Premier and Cabinet, Queensland Treasury, Department of Natural Resources, Mines and Energy, Department of Environment and Science, *Managing residual risks in Queensland* (Discussion Paper, August 2018) 9.

<sup>29</sup> Rio Tinto, *Tailings* (Web Page, 2020) <<https://www.riotinto.com/en/sustainability/environment/tailings>>.

<sup>30</sup> *Contaminated Land Act 1991* (Qld) s 4.

<sup>31</sup> J Harries, *Acid mine drainage in Australia: its extent and potential future liability* (Australian Government Department of Agriculture, Water and the Environment, Web Page, 1997) <<https://www.environment.gov.au/science/supervising-scientist/publications/ssr/acid-mine-drainage-australia-its-extent-and-potential-future-liability>>.

## 1.2 Evolving concepts



**Figure 1.2 Simple representation of the current aspirational mining life cycle in Australia**

### 1.2.1 Co-regulation

Another term used in contemporary discourse is ‘co-regulation’. There are a range of areas of law which can influence mine closure, including labour law, tax law, occupational health and safety law, corporate law and directors’ duties, native title and property law. As an example, mining leases can co-exist with Native Title rights, pastoral leases and private land holding and each of these property rights are governed by separate fields of law. These fields of law can create regulatory silos, and laws become convoluted and conflicting.<sup>32</sup> As a result there is a push for harmonisation not only between State and federal laws but across State legislation.<sup>33</sup>

### 1.2.2 Environmental, social and governance frameworks

A concept that has gained momentum in the resources industry is environmental, social and governance frameworks or ‘ESG’. It refers to an holistic approach to mining that promotes careful management of environmental and social responsibility, beginning with an awareness and acknowledgement of both the positive and negative impacts the industry can have.<sup>34</sup> It can be something of an amorphous concept but some industry groups have identified the failure of mining companies to consider environmental and social governance principles in their decision making as one of the biggest risks to the industry.<sup>35</sup> The Minerals Council of Australia has stressed their commitment to improving how the industry considers environmental social and governance frameworks in order to maintain the reputation and social license of the industry.<sup>36</sup> In particular, there is a focus on the principles of community relationships, environmental stewardship and climate change.<sup>37</sup>

<sup>32</sup> Allens Linklaters, ‘Mine rehabilitation and closure: minimising risk and achieving relinquishment’ 10.

<sup>33</sup> Ibid.

<sup>34</sup> Minerals Council of Australia, ‘Sustainable Mining: taking ESG accountability to a new level’ <<https://www.minerals.org.au/towards-sustainable-mining>>.

<sup>35</sup> Mining.com, ‘ESG seen as biggest risk to mining industry’ <<https://www.mining.com/web/esg-seen-as-biggest-risk-to-mining-industry/>>.

<sup>36</sup> Above n 4.

<sup>37</sup> Ibid.

### 1.2.3 Adaptive management

'Adaptive management' refers to a process of carefully structured, collective decision making aimed at reducing future uncertainty and minimising residual risk.<sup>38</sup> It also involves data collection and the testing of assumptions so that decisions can be adapted as necessary as time goes on.<sup>39</sup> Utilising adaptive management in mine rehabilitation and closure will allow the process to improve continually through shared research.<sup>40</sup>

### 1.2.4 Financial assurance

Modern financial security mechanisms are evolving beyond the use of bonds as a primary form of security. The use of rehabilitation pooled funds, which companies must contribute to alongside funding their own rehabilitation measures, are becoming the new standard. They are aimed at allowing State governments to maintain a source of funds for abandoned mine sites and other mine closure costs that are not adequately addressed by the industry.

Similarly, the insurance industry offers an alternative form of security by offering closure and post-closure insurance policies to companies. Many forms of residual risk may not present themselves for years after formal closure has been achieved, incentivising companies to take out long-term insurance policies.

Banks offer similar forms of security in the form of bank guarantees – a performance bond given by a bank. A bond can be drawn down on by the government (in some cases once additional requisite conditions have been met) where a company has not performed their closure obligations and rehabilitation needs to be undertaken by the State.

The future uses of land do not necessarily need to be industrial or even maintain an economic purpose. Land restoration can have social, cultural, or ecological value. Further, there are examples, particularly in remote Australia, where land may not be viably repurposed.

### 1.2.5 Transformation and Transition

It is increasingly acknowledged in political, industry and scientific discourse that economies dependant on mining as a key industry must adapt and transform to remain economically viable and sustainable.<sup>41</sup> The term 'transformation' has a broad and flexible meaning; it may refer to technological transformation in mining systems or it may refer to transitions from a mining to post-mining economy and community.<sup>42</sup> Academic discourse generally suggests that transformation requires some form of radical change. For example, Jonathan Law of the CSIRO states that rethinking mining approaches is necessary for the mining and resource industry to maintain a social license to operate and reduce residual risk, and that these changes should be reflective of community and environmental expectations.<sup>43</sup> In practice, industry and government tend to adopt incremental, slower paced changes to allow gradual transitions to new

<sup>38</sup> NSW Department of Planning, Industry and Environment, *Adaptive Management* (NSW Government, Web Page, 30 November 2018) <<https://www.environment.nsw.gov.au/research/adaptive-management.htm>>; Jessica Lee, 'Theory to Practice: Adaptive Management of the Groundwater Impacts of Australian Mining Projects' (2014) 31 EPLJ 251.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> F Carvalho, 'Mining industry and sustainable development: time for change' (2017) 6(2) *Food and Energy Security* 62.

<sup>42</sup> Australian Government Department of Industry, Tourism and Resources, *Mine Closure and Completion* (Report, October 2006) 5; M Ash, *Next generation mining* (CSIRO, Web Page, 22 February 2021) <<https://www.csiro.au/en/work-with-us/industries/mining-resources/Resourceful-magazine/Issue-17/Next-generation-mining>>; Senate Standing Committees on Environment and Communications, Parliament of Australia, *Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities* (20 March 2019), at [7.28].

<sup>43</sup> J Law, *Changing the face of mining* (CSIRO, Web Page, 22 February 2021) <<https://www.csiro.au/en/work-with-us/industries/mining-resources/resourceful-magazine/issue-18/changing-the-face-of-mining>>.

regulations and practices.<sup>44</sup> Nevertheless, two new key concepts have gained growing importance in discussions of mine closure and the transformations and transitions required of the affected communities: repurposing and social transitions.

#### 1.2.5.1 Repurposing

The core meaning given to this term is the adaptation of the concept of closure to include repurposing of mining assets to future non-mining uses instead of their removal and the rehabilitation of the mined area. However, the repurposing of mine assets or mined land forms may be presented as a part of rehabilitation. When closing a mine, the social license to decommission and repurpose is presently paramount because there are generally not clearly established regulatory measures governing repurposing of mine assets.<sup>45</sup> A transformative approach to mine closure and repurposing should also encompass community and Traditional Owner concerns, ideally through the lens of their lived experiences and expectations. Repurposing is discussed further in chapter 7.

#### 1.2.5.2 Social transition

Mining affects local communities and other stakeholders in a range of ways that would be considered social; that is, they influence daily life and impact employment, health outcomes, politics, infrastructure and other cultural outcomes.<sup>46</sup> Where mining has ceased to be the main industry of a community, there can be negative outcomes such as unemployment and deteriorating infrastructure, particularly where mining companies used to provide for infrastructure maintenance and other essential services.<sup>47</sup> One recent and careful study<sup>48</sup> of the social aspects of mine closure in three Australian states (New South Wales, Queensland and Western Australia) found that there was little regulation of these issues at the time of closure; rather there was a heavy reliance on front-end environmental and social impact assessment. The authors concluded that what communities and regulators contend with at the early stages of project approval are very different what they will need to contend with at closure. The second key finding was that there was a strong expectation that, at closure, local communities will be actively involved in defining post-mining futures, with an assumed importance of bilateral negotiations ‘between companies and communities to agree mutually acceptable post-closure outcomes’, which failed to recognize the considerable disparities in decision-making power between those parties in addressing important environmental and social issues. This identifies an important question for future legal and regulatory research.

## 1.3 Elements of mine closure regulation

### 1.3.1 Mining Leases, Closure Planning and Financial Security

Each State establishes the requirements for, and the limitations on, the grant of mining tenure. The words resource tenure or tenement are generic references to mining authorisations, while lease and licence can describe the exclusive right to apply to conduct mining operations on a site. Each jurisdiction’s regulatory regime uses slightly different wording, sometimes interchangeably; WA and Queensland use ‘mining lease’ and Victoria uses ‘mining licence’. Each State regime is considered individually in detail in Stage 2 of the report. Mining leases are usually exclusive for mining activity over a specified area of land, but can co-exist

<sup>44</sup> N V Moraka, ‘Interpretation of transformation - perspectives from mining executives in South Africa’ (2016) 116(5) *Journal of the Southern African Institute of Mining and Metallurgy*.

<sup>45</sup> D P Murphy, J Fromm, R Bairstow and D Meunier, ‘A repurposing framework for alignment of regional development and mine closure’, A B Fourie & M Tibbett (eds), *Mine Closure 2019*, Australian Centre for Geomechanics, Perth.

<sup>46</sup> F Carvalho, ‘Mining industry and sustainable development: time for change’ (2017) 6(2) *Food and Energy Security* 62; V Vivoda, D Kemp & J Owen, ‘Regulating the social aspects of mine closure in three Australian states’ (2019) 37(4) *Journal of Energy & Natural Resources Law* 405-425 at 411. <<https://doi.org/10.1080/02646811.2019.1608030>>.

<sup>47</sup> Ibid.

<sup>48</sup> V Vivoda, D Kemp & J Owen, ‘Regulating the social aspects of mine closure in three Australian states’ (2019) 37(4) *Journal of Energy & Natural Resources Law* 405-425.

with other forms of property rights, such as pastoral and agricultural leases and Native Title.<sup>49</sup> Generally, on the grant of a lease and approval of a mining proposal, the lease holder will be responsible for the payment of rent and royalties on minerals production, and for monitoring and reporting its operations. Importantly, the lease holder is responsible for the conduct of mining operations in accordance with a mining proposal and mine closure plan approved by the relevant regulator, and subject to the lodgement of a financial security for the fulfilment of the closure plan.

The lease holder is required to provide a draft mine closure and/or rehabilitation plan on application for the grant of a mining lease or prior to commencing operations. The plan approved by the relevant regulator may need to be amended and resubmitted upon any changes to the lease<sup>50</sup> and can also be adjusted as social and regulatory standards shift over the course of the mine life.<sup>51</sup> Regular review of the mine closure plan may also be a statutory requirement, as is the case in Western Australia.<sup>52</sup> An ongoing challenge for the industry is making and amending mine closure plans in a way that provides for effective stakeholder consultation and sufficient certainty in the regulatory outcomes for both mining industry operators and community stakeholders.<sup>53</sup>

### 1.3.2 Legal abandonment: tenure transfer, forfeiture, surrender or expiry

During the life of the mine, the resource tenure may be transferred, forfeited, surrendered or expire. These events may broadly be categorised as ‘legal abandonment’ if mine closure has not been achieved with regulator approval. Legal abandonment will not necessarily result in tenure and closure obligations ceasing to have effect, although it can in instances of transfer of the tenement.<sup>54</sup> Tenure can be partially or fully transferred to another party on application, at which point the incoming lessee will assume liability.<sup>55</sup> Forfeiture can occur if a lease holder fails to meet minimum expenditure requirements, or otherwise does not meet the conditions of their tenement, and an application for forfeiture is made by another party.<sup>56</sup> This is part of the ‘jealous neighbour principle’, whereby a party which intends to make use of the land may apply to have the lease forfeited by the existing tenement holder.<sup>57</sup> For example in Western Australia, if the forfeiture application is successful in the Warden’s Court, the party who applied for the forfeiture is granted a priority right to apply for the tenement area.<sup>58</sup> A company can also apply to surrender their tenement, ending the term of the lease early – though they will still be required to meet their closure obligations.<sup>59</sup>

<sup>49</sup> For example, *Mining Act 1978* (WA) s 85. See also Government of Western Australia, Department of Mines, Industry Regulation and Safety, *Mining leases explained* (Web page) <<https://www.dmp.wa.gov.au/Minerals/Mining-Leases-explained-5145.aspx>>.

<sup>50</sup> *Mineral Resources Act 1989* (Qld) ss 125(1); *Mining Act 1978* (WA) ss 700; *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40(3)(e).

<sup>51</sup> *Mining Act 1978* (WA) s 84AA and *Statutory Guidelines for Mine Closure Plans 2020* (WA), cl.13; Similar provisions exist in Queensland and Victoria.

<sup>52</sup> *Mining Act 1978* (WA) s 74A.

<sup>53</sup> Department of Mines, Industry Regulation and Safety *Statutory Guidelines and Mine Closure Plan Guidance - how to prepare in accordance with the Statutory Guidelines* (WA).

<sup>54</sup> Roche, Judd and Bista, ‘Ground Truths: Taking Responsibility for Australia’s Mining Legacies’ *Mineral Policy Institute*, 6.

<sup>55</sup> Ashurst, ‘Mining in Australia: an introduction for investors’ (2016) 9; C Ward, ‘Miners’ liability to redress reduced water quantity and quality after mine site closure: A case study of the Collie Coalfields in Western Australia’ (2015) 32 *Environmental and Planning Law Journal* 469 – 474.

<sup>56</sup> Ashurst, ‘Mining in Australia: an introduction for investors’ (2016) 11.

<sup>57</sup> Vogels and Davies, ‘Mining Leases: Minimum Expenditure and Applications for Forfeiture’ Bennett and Co (2020) <<https://bennettandco.com.au/areas/regulation/mining-leases-minimum-expenditure-and-applications-for-forfeiture/>>.

<sup>58</sup> C Ward, ‘Miners’ liability to redress reduced water quantity and quality after mine site closure: A case study of the Collie Coalfields in Western Australia’ (2015) 32 *Environmental and Planning Law Journal* 469 – 474; *Mining Act* (WA) ss 98-100.

<sup>59</sup> Department of Natural Resources, Mines and Energy, ‘Mining lease guide’ (2020) Queensland Government 9; Department of Mines, Industry Regulation and Safety *Statutory Guidelines for Mine Closure Plans 2020* and *Mine Closure Plan Guidance - how to prepare in accordance with the Statutory Guidelines 2020* (WA) 27.

Finally, mining leases apply for set time periods (for example, the standard term in Western Australia is 21 years) and will expire at the end of this period unless renewed.<sup>60</sup>

At the forfeiture, surrender or expiry of a mining lease, the owner of the land will take possession of the site.<sup>61</sup> A lease holder is not automatically free of legal liability at cessation of the lease. For example, in Western Australia, the person who was the lease holder remains liable under the Act to remove mining plant and mining product, and in default the Minister may do so.<sup>62</sup> It is not clear that the statutory provisions cover the full array of contemporary mine closure expectations, such as may be found in a mine closure plan.

The details of these processes in each State will be assessed in Stage 2 of this Report. The common law also provides for a continuation of legal liability in certain situations, as will be discussed below at 3.1.3.

## 1.4 Glossary of key terms

### Summary glossary

Mining	Process of extracting minerals from the Earth.
Mine closure	The point at which mining operations have ceased and the mine is decommissioned.
Abandonment	When there is no longer a mining operator holding a mining tenement over a mine site. Forfeiture, surrender or expiry of a mining lease may broadly be categorised as ‘legal abandonment’ if mine closure is not achieved with regulator approval.
Care and maintenance	Non-operational mine phase where a site is being managed by the tenement holder without being fully decommissioned due to potential that operations on the site might be recommenced at some point in future.
Decommissioning	The shutdown of operations and the removal of any structures or equipment that is not required to remain on the land for repurposing for a future non-mining use.
Rehabilitation	The process of rendering a mine site into a state where it can be used for an alternative use or otherwise restoring its native ecology.
Financial assurance or security	The provision of funds or other security by the mine operator to the State as assurance against any rehabilitation or remediation costs post-closure.
Residual risk	Any ongoing threats or dangers presented by a mine site after it has been closed or is no longer in use.
Co-regulation	The intersection and at times confluence of multiple spheres of law with influence on mine closure.
ESG	Environmental, social and governance frameworks and practices.
Adaptive management	A process of carefully structured, collective decision making aimed at reducing future uncertainty and minimising residual risk.
Repurposing	The way in which a mine site or mine site assets are adapted to an alternative use after operations have ceased.

<sup>60</sup> *Mining Act 1978* (WA) s 78.

<sup>61</sup> Vogels and Davies, ‘Mining Leases: Minimum Expenditure and Applications for Forfeiture’ Bennett and Co (2020) <<https://bennettandco.com.au/areas/regulation/mining-leases-minimum-expenditure-and-applications-for-forfeiture/>>; For example, *Mining Act 1978* (WA) s 113. In some instances, the land subject to the mining lease may also have been acquired by the mining operator.

<sup>62</sup> For example, *Mining Act 1978* (WA) ss 114 – 114C.

Relinquishment	The process by which the company relinquishes their rights to mining operations on the lease land and is no longer required to undertake any further rehabilitation or closure works.
Transformation	The social, economic, political, cultural and environmental shift away from a mining economy upon closure of a significant mine site.

### 1.1 – 1.3 Future Research Point

We found that there are several core concepts that are central to the discussion of mine closure but for which there are uncertain and inconsistent definitions and usages? For example, ‘rehabilitation’, ‘restoration’, ‘remediation’, ‘relinquishment’ and ‘residual risk’ have been given specific definitions in some scholarly literature but the terms are not used consistently in legislation and in some industry and government commentary and grey literature. It would help to survey the varied uses of these terms and related concepts across Australian literature and legislation in all Australian jurisdictions and to develop consistent Australian definitions for them with recommendations for the legislative reforms to implement those definitions.

A related aspect of this research will be collating the terminology applied to define the various forms of resource tenures that authorize mineral exploration and production and the associated regulatory authorisations required for implementing those core legal concepts for mine closure. This research can build on the initial glossary of terms compiled at section 1.4.

## 2 Goals and aspirations for mine rehabilitation and closure

This chapter considers the current aims of the Commonwealth and State governments in respect of mine closure. We provide an overview of the key legislative objectives and purposes, followed by a general consideration of government policy direction. The chapter provides further context for the discussion of the State legislative frameworks in Stage 2.

### 2.1 Commonwealth

#### 2.1.1 Legislation

We briefly consider two Commonwealth statutes that establish national regulatory powers relevant to mine closure. A hallmark of these two statutes is that they provide for Commonwealth leadership on environmental and biodiversity conservation in a federal co-operative manner; for example, through the use of ‘bilateral agreements’.<sup>63</sup> They also provide for direct Commonwealth approval and regulation where a proposed action may have a significant environmental impact on a matter of national environmental significance. We have not had the opportunity to research the regulatory experience with the use of this legislation, so provide only a summary of the key features of the legislation so that readers have in mind the

<sup>63</sup> Australian Government, Department of Agriculture, Water and the Environment, ‘Bilateral Agreements’. See <<https://www.awe.gov.au/environment/epbc/bilateral-agreements>>. The example of the Commonwealth – Western Australia Bilateral Agreement is summarised below.

Commonwealth's limited regulatory capacities when considering the detail of the State regulation in Stage 2 and the regulatory experience in Stage 3.

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) does not specifically refer to mine closure or rehabilitation under the objects of the Act.<sup>64</sup> The objects of the Act are broadly to promote the protection of the environment, conservation and sustainable development; purposes which are relevant for mine closure and rehabilitation.<sup>65</sup> Eleven matters of national environmental significance are identified for regulatory protection, including Commonwealth land. The likely most relevant matters for consideration of mine closure regulation are:

- World heritage and national heritage areas;
- Internationally significant wetlands;
- Areas containing threatened species;
- Commonwealth marine areas;
- The Great Barrier Reef Marine Park; and
- A water resource, if impacted by a large coal mining or coal seam gas development.<sup>66</sup>

Any action that would have a significant impact on a protected matter may be designated a 'controlled action' and require assessment and approval by the Minister for the Environment.<sup>67</sup> Where an approval is required, the Commonwealth Minister has the power to regulate mine closure and rehabilitation related to that action by setting conditions that the Minister considers are "necessary or convenient", including conditions for repairing or mitigating damage caused by the action to a protected matter,<sup>68</sup> and to require restoration of environmental values where approval conditions are breached.<sup>69</sup> The *EPBC Act* provides a four step process for the exercise of this regulatory power.

- A project can be referred to the Commonwealth Minister for the Environment by either the project proponent or a State or Commonwealth agency.<sup>70</sup> The Minister then needs to decide whether the project is likely to have a significant impact on a matter of national environmental significance.<sup>71</sup> If it is decided that the project is unlikely to have a significant impact, no approval is necessary.<sup>72</sup> If the Minister determines that the project might have a significant impact, and is a 'controlled action', the project will be subject to the approval process.<sup>73</sup>
- A decision will be made about how best to assess a controlled action.<sup>74</sup> What method of assessment is used depends on the individual project and can require expert assessment, an EIS, or a Public Environmental Review, as examples.<sup>75</sup> There are categories of assessment dependant on the level or risk posed by a particular project. The assessment process (i.e. the gathering of information and the

<sup>64</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 3.

<sup>65</sup> *Ibid.*

<sup>66</sup> *Ibid.*, div 1.

<sup>67</sup> *Ibid.*, s 34 – see list of matters. Whether an assessment and approval are required depends on the Minister's decision under s.75 that the action is a 'controlled action'.

<sup>68</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 134(1).

<sup>69</sup> *Ibid.*, s 499 – 500.

<sup>70</sup> *Ibid.*, ss 68, 69, 70.

<sup>71</sup> *Ibid.*, div 2.

<sup>72</sup> *Ibid.*, s 75.

<sup>73</sup> *Ibid.*, s 68.

<sup>74</sup> *Ibid.*, s 87.

<sup>75</sup> *Ibid.*

expert assessment of the likely environmental impacts) may be conducted by a State agency under State law by accreditation from the Commonwealth.

- The Minister will then decide whether or not to approve a controlled action and what conditions may need to be imposed on the approval.<sup>76</sup> Decisions are published and accessible to the public.<sup>77</sup> The Minister can include a requirement to provide financial security in any conditions imposed.<sup>78</sup> The EPBC Act sets out a list of considerations that the Minister must take into account, including but not limited to:
  - Economic and social matters, and the principles of ecologically sustainable development ('ESD'), including the precautionary principle;
  - The assessment documentation, comments from other State or Commonwealth agencies and community and stakeholder comment; and
  - The environmental history of the relevant companies.<sup>79</sup>
- Following the approval and imposition of any conditions, the Department of Agriculture, Water and the Environment will continue to monitor approved projects and audit them for compliance.<sup>80</sup>

There is the potential for regulatory duplication between State and federal governments as mining and resources projects may have rehabilitation measures set as approval conditions by both levels of government. However, the Commonwealth Minister must, in deciding on conditions of approval, consider any conditions that have been, or are likely to be, imposed under State or Territory laws.<sup>81</sup> Additionally, most mines currently in a rehabilitation phase were approved before the EPBC Act became operational and so are not subject to Commonwealth environmental approvals. The relative lack of Commonwealth regulatory experience with mine closure may lead to the conclusion that the Commonwealth has not yet, in its legislation and policy, articulated specific and clear goals in respect of mine closure.

Decisions made by the Department of Agriculture, Water and the Environment can only be challenged by judicial review proceedings in the Federal Court by a 'person aggrieved' as defined by the EPBC Act.<sup>82</sup> Challenges arguing that the principles of ESD have not been properly considered show little sign of success.<sup>83</sup> In 2020, the *Independent Review of the EPBC Act – Final Report* commented at 1.42 that ESD: "needs to be hardwired into the Act as the basis of decisions made. This means that: the Act must require the Environment Minister to apply and deliver ESD, rather than just consider it ...".

The *National Environment Protection Council Act 1994* (Cth), with the equivalent enactments at State and territory level, establishes the National Environment Protection Council and a process for the adoption and implementation of national environmental protection measures.<sup>84</sup> Again, the *NEPC Act* does not explicitly reference mine closure, but the broad environmental objectives and the powers and functions of the Council<sup>85</sup> are sufficient to encompass the mining and minerals industry. For example, the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM) has the purpose of establishing "a nationally consistent approach to the assessment of site contamination to ensure sound

<sup>76</sup> Ibid, s 77.

<sup>77</sup> Ibid, ss 95, 95A.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid, ss 131, 131A, 134A, 136 and 391.

<sup>80</sup> Ibid, s 134.

<sup>81</sup> Ibid, s 134(4). See *Lansen v Minister for Environment & Heritage* [2008] FCAFC 189.

<sup>82</sup> EPBC Act Policy Statement – Statements of reasons (2019) (Cth).

<sup>83</sup> For example, *Australian Conservation Foundation v Minister for Environment* [2016] FCA 1042 in relation to ESD and the precautionary principle.

<sup>84</sup> *National Environment Protection Council Act 1994* (Cth) s 3, the objects provision.

<sup>85</sup> Ibid, ss 12 - 14.

environmental management practices by the community which includes regulators, site assessors, environmental auditors, land owners, developers and industry”.<sup>86</sup> The implementation of the NEPM is the responsibility of the individual States and territories, except that the Commonwealth has this responsibility in relation to Commonwealth sites.<sup>87</sup>

The *Native Title Act 1993* (Cth), though not discussed in detail throughout this Report, may be influential in mine closure planning and post-mining land use.

### 2.1.2 Future direction

Two recent reports highlight the potential for a greater Commonwealth role in setting national standards for mine closure. On 20 March 2019 a Senate Committee reported on the rehabilitation of mining and resources projects, including power station ash dams, as it relates to the Commonwealth’s responsibilities under, for example, the EPBC Act.<sup>88</sup> The Committee’s wide ranging report did not reach agreement between the Liberal, Labor and Greens Party members on a set of unanimous recommendations but the key recommendations from each Senator were themed around the need for more comprehensive regulations for both current and abandoned mine sites and harmonisation of the legislative framework between States and the Commonwealth.<sup>89</sup>

The Productivity Commission released a Study Report on *Resources Sector Regulation* in November 2020.<sup>90</sup> One of the key points of the study was that mine rehabilitation requirements need to be clearer and easier to implement in order to improve community benefits.<sup>91</sup> More general findings of the report focused on the poor management of funds within the resources industry and a need for greater cohesion between companies and local communities, particularly Indigenous communities, in order to make sure that funds are being used as effectively as possible.<sup>92</sup> The streamlining of regulations and reduction of overlap between departments and levels of government would likely incentivise increased investment into the sector whilst encouraging more meaningful improvements to environmental and safety outcomes.<sup>93</sup>

The question is whether the Commonwealth should take a greater role in enacting national legislative guidance for mine closure. The Senate Committee on mining rehabilitation (2019) could not reach a definitive conclusion on the matter.<sup>94</sup> The significance of this question may be heightened by climate change, which is expected to underscore the prioritisation of proper mine site closure. Mine closure and repurposing are considered to be adaptive strategies in the context of climate change.<sup>95</sup> Increasingly, the impact of a warming climate on arid land means that any arable land is of value and worth rehabilitating.<sup>96</sup> The cost effectiveness of investing in mine closure is improving as climate change impacts take effect, incentivising both industry and legislative development of the area.<sup>97</sup> However, a significant difference between

<sup>86</sup> *National Environment Protection (Assessment of Site Contamination) Measure 1999* cl 5.

<sup>87</sup> *Ibid*, cl 6.

<sup>88</sup> Senate Standing Committees on Environment and Communications, Parliament of Australia, *Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities* (20 March 2019).

<sup>89</sup> *Ibid*.

<sup>90</sup> Australian Government Productivity Commission, *Resources Sector Regulation* (Productivity Commission Study Report, November 2020).

<sup>91</sup> *Ibid*.

<sup>92</sup> *Ibid*.

<sup>93</sup> *Ibid*.

<sup>94</sup> Senate Standing Committees on Environment and Communications, Parliament of Australia, *Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities* (20 March 2019).

<sup>95</sup> N Banning et al, ‘Rehabilitated Mine-Site Management, Soil Health and Climate Change’ (2011) *Soil Health and Climate Change* 287.

<sup>96</sup> *Ibid*.

<sup>97</sup> CSIRO, Environmental management for mine sites (Web page, 10 March 2020) <<https://www.csiro.au/en/work-with-us/industries/mining-resources/Social-and-environmental-performance/Minesite-environmental-management>>.

Commonwealth and State responsibilities is that the Commonwealth is not normally the holder of the underlying sovereign title to the lands impacted by failures of mine closure; the States are.

### 2.1 Future Research Point

There are significant questions about the current role of the Commonwealth in relation to the regulation of mine closure and what that role should be in the future. In this report, we have been able only to sketch an outline of the key federal leadership powers that the Commonwealth may exercise in relation to mine closure, and the role of the objects and principles of ESD in decision making. We could not consider the detail of the Commonwealth-State interactions in relation to regulation of mine closure or what role the Commonwealth has taken in the Territories, where its powers are greater. Neither have we been able to consider the regulatory experience of the Commonwealth in exercising its powers under the *EPBC Act* to set approval conditions for mine closure. Future research may explore the current and future roles of the Commonwealth in mine closure planning and in ensuring that a clear objective of the legislation is that mine rehabilitation be achieved and mining communities assisted in the social transition that mine closure brings.

## 2.2 Queensland

### 2.2.1 Legislation

The two central legislative instruments for mine closure in Queensland are the *Mineral Resources Act 1989* (Qld) (MR Act) and the *Environmental Protection Act 1994* (Qld) (EP Act). The MR Act sets out limited objectives and is largely focused on the procedures for granting and regulating mineral resource tenure and mining equipment. The EP Act has an important role in setting and administering land rehabilitation principles. Prior to 2019, the EP Act was more flexible and aspirational. In November 2019, the third key piece of legislation came into operation: the *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) (MERFP Act). It amended the EP Act to introduced new requirements for progressive rehabilitation and closure plan (PRC plan) requirements, which are discussed in detail in Stage 2.<sup>98</sup> It also enacted, as a principal act, a more secure source of funds to State Government rehabilitation activities on abandoned mines and initiated new financial security requirements that linked the level of operators' security payments to progress in rehabilitation.

The MR Act does not expressly address mine closure in any of its objectives, but it states the intention to "encourage responsible land care management in prospecting, exploring and mining".<sup>99</sup> Whilst 'mining' is not defined, 'mine' is defined to mean carrying on an operation "for the purpose of extracting a mineral from its natural state".<sup>100</sup> In granting a lease, the Minister may impose conditions on the lease, including a condition that the holder must carry out 'improvement restoration' for the mining lease; and that,

*"prior to the termination of the mining lease, shall remove any building or structure purported to be erected under the authority of the mining lease and all mining equipment and plant, on or in the area of the mining lease unless otherwise approved by the Minister".<sup>101</sup>*

'Improvement restoration' is narrowly defined as 'damage done to all pre-existing improvements on the area of a lease' and does not include "damage to which a requirement to rehabilitate or remediate under

<sup>98</sup> *Environmental Protection Act 1984* (Qld) ch 5 was amended by the *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld), with the new PRC Plan requirements coming into effect on 1 November 2019: see Queensland Government, Department of Environment and Science, 'Guideline: Progressive rehabilitation and closure plans', p.4.

<sup>99</sup> *Mineral Resources Act 1989* (Qld) s 2(g).

<sup>100</sup> *Ibid*, s 6A.

<sup>101</sup> *Ibid*, s 109.

the *Environmental Protection Act* applies”.<sup>102</sup> Thus, it is apparent that the MR Act does not regulate restoration or remediation of the land after mining has concluded.

The requirement to rehabilitate is regulated through the grant of an ‘environmental authority’ (EA) under the EP Act.<sup>103</sup> The object of the EP Act is declared in s.3:

*“The object of this Act is to protect Queensland’s environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (**ecologically sustainable development**).”*

Persons performing functions or exercising powers under the EP Act must do so “in the way that best achieves the object of this Act”: s.4. Further, there are specific decision-making criteria, such as those prescribed for the Land Court in making recommendations on the resolution of objections, which include consideration of the ‘standard criteria’: s.191(g). Those criteria are extensively defined in EP Act Schedule 4 and include the precautionary principle, intergenerational equity and conservation of biological diversity and ecological integrity. Judicial interpretation of the legislation has found that there is no requirement for the decision-maker to reach a positive satisfaction on these criteria as a pre-condition to the lawful exercise of the statutory power; rather, it is for the decision-maker to decide in a way that the decision-maker conceives will best achieve ecologically sustainable development.<sup>104</sup> Thus, the EP Act objectives do not contain any principles relating to mine rehabilitation and closure and, even if they did, the legal effect would be questionable. The reasoning of the Court seems to contradict the guidance of s.14A(1) of the *Acts Interpretation Act 1954* (Qld): “In the interpretation of a provision of an Act, the interpretation that will best achieve the purpose of the Act is to be preferred to any other interpretation”. It is possible that the object of the Act could be relevant to interpreting the operation of the substantive provisions of the EP Act rather than being applied as a substantive provision.

The EP Act is able to regulate ‘mining activity’, which is defined as an activity authorised by a mining lease under the MR Act to be an ‘environmentally relevant activity’.<sup>105</sup> In order for the environmental authority to be granted for ‘mining activities relating to a mining lease’, the proponent must submit a PRC plan.<sup>106</sup> The elements of a PRC plan will be discussed in detail in Stage 2; however, it must discuss rehabilitation planning, evincing a clear intention to regulate the rehabilitation element of closure beyond decommissioning.<sup>107</sup>

The purposes of the new financial security requirements of the MERFP Act, Queensland’s core piece of mine rehabilitation financial security legislation, relevantly include:

- To manage the risk to the State of incurring costs and expenses if the holder of a mining tenure does not comply with their obligations;
- To provide a source of funds for the prevention or minimisation of environmental harm, or rehabilitating or restoring the environment; and
- To provide a source of funds for remediation activities relevant to abandoned mine sites and operating plants, as well as research relevant to rehabilitation of land.<sup>108</sup>

<sup>102</sup> Ibid, s 6C.

<sup>103</sup> *Environmental Protection Act 1984* (Qld) ch 5.

<sup>104</sup> *Land and Services of Coast and Country v Chief Executive, Department of Environment and Heritage Protection* [2016] QSC 272 at [17].

<sup>105</sup> *Environmental Protection Act 1994* (Qld) s 110.

<sup>106</sup> Ibid, s 180 ff, ch 5.

<sup>107</sup> Ibid, s 112.

<sup>108</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) s 3.

Another aim of Queensland’s regulatory framework is to create a system that is efficient and effective without unnecessary complication.<sup>109</sup> An issue that was arising prior to the introduction of the MERFP Act was that companies could essentially wash their hands of any future rehabilitation work once they had met the minimum standards to allow the surrender of their EA.<sup>110</sup> Residual risk payments under the MERFP Act are designed to allow for ongoing maintenance of mine sites and better environmental preservation.<sup>111</sup> These regulatory reforms are aimed at making progressive rehabilitation a requirement of mining operations.<sup>112</sup>

### 2.2.2 Future direction

The incumbent government has expressed that its goal is to ‘strike the right balance’ between environmental and resource sector interests.<sup>113</sup> The central purpose of recent legislative reform has been to ensure that it is the resource companies as opposed to Queensland taxpayers who are paying for the rehabilitation of abandoned or failed mines.<sup>114</sup> An ancillary goal is to prevent mines remaining abandoned or in care and maintenance for decades.<sup>115</sup> The Queensland government has been criticised by environmental groups for not setting more ambitious requirements, and by industry bodies for creating regulations that are too onerous.<sup>116</sup>

Minister for Environment Leeanne Enoch advocated for the ability to require residual risk payments from resource corporations even after surrender of an Environmental Authority over a site has been accepted – this was met with substantial backlash from the resources industry and the government ultimately amended the wording of the MERFP Act so that it would not operate retrospectively.<sup>117</sup>

## 2.3 Western Australia

### 2.3.1 Legislation

The *Mining Act 1978* (WA) (Mining Act) and the *Environmental Protection Act 1986* (WA) (EP Act) are both relevant to the regulation of mine closure. In contrast to Queensland, the mining legislation is the main source of that regulation, though the EP Act is especially relevant in relation to State Agreement projects.

There are no express objectives in the Mining Act though the principal objective is seen to be “that of regulating access to and exploitation of the State’s mining resources”.<sup>118</sup> A 2004 review of the Act<sup>119</sup> stated that the Act is designed to support the Western Australian mining industry and that the 2004 amendments to the Act, which introduced statutory guidelines published by the Director General, were intended to be

<sup>109</sup> Queensland Cabinet and Ministerial Directory, *Palaszczuk Government takes next step in mining rehabilitation* (Queensland Government, Web Page, 19 November 2018) <<https://StateStatements.qld.gov.au/StateStatements/86063>>.

<sup>110</sup> *Ibid.*

<sup>111</sup> *Ibid.*

<sup>112</sup> *Ibid.*

<sup>113</sup> Mark Ludlow ‘Palaszczuk government backs down on mining rehabilitation laws’ (14 November 2018) *Australian Financial Review* (online) <<https://www.afr.com/politics/palaszczuk-government-backs-down-on-mining-rehabilitation-laws-20181114-h17w01>>.

<sup>114</sup> Queensland Cabinet and Ministerial Directory, *Central Queensland mine reaches rehabilitation milestone* (Queensland Government, Web Page, 15 March 2021) <<https://StateStatements.qld.gov.au/StateStatements/91683>>.

<sup>115</sup> *Ibid.*

<sup>116</sup> Queensland Treasury, *Queensland Government Consultation Report: Managing Residual Risk in Queensland Discussion Paper*, February 2019: <<https://www.treasury.qld.gov.au/programs-and-policies/improving-rehabilitation-financial-assurance-outcomes-resources-sector/>>.

<sup>117</sup> *Ibid.*

<sup>118</sup> *St Barbara Ltd v Minister for Energy, Resources, Industry and Enterprise* (2008) 2 ARLR 151 at [22].

<sup>119</sup> Government of Western Australia Department of Mines and Petroleum, *Review of the Operation and Effectiveness of the Mining Act 1978 as amended by the Mining Amendment Act 2004 (WA)* (Report to Parliament, 26 October 2004) 8. The review was conducted under section 163 of that Mining Act.

dynamic in order to meet the ongoing and changing needs of the mining industry.<sup>120</sup> The 2010 amendments to the Guidelines provision added the requirement for a mining proposal to include a mine closure plan.<sup>121</sup> A Mine Closure Plan (MCP) must contain information about both the decommissioning of the mine and the rehabilitation of the land,<sup>122</sup> evincing a clear intention that all mines will require rehabilitation. Under the standard Mining Act process, a mine closure plan must be approved by a prescribed official of the Department of Mines, Industry Regulation and Safety (DMIRS).<sup>123</sup> The Draft Mine Closure Plan Guidance also States that a standard condition should be imposed on leases requiring mine closure to be carried out in accordance with an approved MCP.<sup>124</sup> Lease holders should undertake rehabilitation and closure of all mining activities according to their approved MCP and any conditions on that MCP, so that the mine can be closed and rehabilitated in alignment with the DMIRS environmental objectives.<sup>125</sup>

The Mining Act is subject to the EP Act,<sup>126</sup> so any environmental impact assessment approval requirements relating to mine closure will prevail.<sup>127</sup>

The EP Act sets out a broad object of protecting the environment of the State and five guiding principles.<sup>128</sup>

1. The precautionary principle, which entails that where there is a threat of irreversible environmental damage decisions should be guided by what is necessary to avoid the risks of that damage.
2. The principle of intergenerational equity, being that the present generation should ensure a healthy environment is maintained for future generations.
3. The principle of conservation of biological diversity and ecological integrity as fundamental considerations.
4. The principle of improved valuation and incentive mechanisms to incorporate environmental outcomes into the cost assessment of projects.
5. The principle of waste minimisation.

These principles are relevant considerations for the environmental approvals process.<sup>129</sup> This process includes the approval of mine closure plans, where the mining proposal can be subject to environmental impact assessment (EIA). The definition of 'proposal' in the EP Act includes 'development' proposals, which is taken to include mining proposals under both the Mining Act and State Agreements. A proposal that may have a significant effect on the environment must be referred to the Environmental Protection Authority (EPA) for a decision whether or not a proposal will require an EIA.<sup>130</sup> The EPA may assess proposals that are not considered under the Mining Act because they are subject to a State Agreement, discussed further at Institutions.<sup>131</sup>

In summary, it is apparent that the bifurcated statutory regimes of the Mining Act and State agreements lack a clear and coherent expression of goals for mine closure. Even the statutory object and principles of the EP

<sup>120</sup> Ibid. See also *Mining Amendment Act 2004 (WA)* s 27 inserting ss 700 and 70P.

<sup>121</sup> *Approvals and Related Reforms (No 2) (Mining) Act 2010 (WA)*, s 8 amending s 700.

<sup>122</sup> *Mining Act 1978 (WA)* s 700.

<sup>123</sup> *Mining Act 1978 (WA)* ss 82A(2)(b) and 84AA.

<sup>124</sup> Department of Mines, Industry Regulation and Safety, *Draft Mine Closure Plan Guideline (WA)* p 4.

<sup>125</sup> Ibid.

<sup>126</sup> *Environmental Protection Act* s 5; *Mining Act 1978 (WA)* s 6.

<sup>127</sup> *Mining Act 1978 (WA)* s 6.

<sup>128</sup> *Environmental Protection Act 1986 (WA)* s 4A.

<sup>129</sup> For example, as explained by the WA Court of Appeal in *Conservation Council of WA Inc v The Minister for Environment* [2019] WASCA 102 at [92].

<sup>130</sup> *Environmental Protection Act 1986 (WA)* ss 3 and 39A; Environmental Protection Authority (WA), *Environmental impact assessment* (Government of Western Australia, Web Page) <<https://www.epa.wa.gov.au/pages/about-environmental-impact-assessment>>.

<sup>131</sup> Section 3.5.1 below.

Act give no unifying statement of goals for mine closure. Despite the lack of relevant express statutory goals, it is apparent that the goals of mining operators undertaking mine closure planning and providing financial security for achieving mine closure are driving amendments to the regulatory regime.

### 2.3.2 Future direction

The incumbent Western Australian government has, similarly to the Queensland government, expressed that its aim is to achieve effective mine rehabilitation without sacrificing industry growth and economic incentivisation.<sup>132</sup> The mine closure guidelines (Guidelines) are aimed at addressing a goal that the incumbent government has expressed to measure rehabilitation success by setting practical outcomes and quantifiable completion criteria.<sup>133</sup> The incumbent government is aiming to reduce ‘red tape’ to boost the mining industry and promote continuing exploration but ensuring that rehabilitation and closure approvals do not act as a disincentive.<sup>134</sup>

## 2.4 Victoria

### 2.4.1 Legislation

The *Mineral Resources (Sustainable Development) Act 1990* (Vic) (MRSD Act) is the foundational piece of mining legislation in Victoria and sets out a purpose and several objectives.<sup>135</sup>

*The purpose of this Act is to encourage mineral exploration and economically viable mining and extractive industries which make the best use of, and extract the value from, resources in a way that is compatible with the economic, social and environmental objectives of the State.*<sup>136</sup>

The objectives are more specific and include:<sup>137</sup>

- To encourage and facilitate mining operations by providing an efficient and effective administrative structure and approvals system;
- To establish a legal framework aimed at ensuring that:
  - risks posed to the environment, the public, or to land, property or infrastructure by mining operations are identified and are eliminated or minimised as far as reasonably practicable;
  - consultation mechanisms are effective and appropriate access to information is provided;
  - land which has been mined is rehabilitated; and
  - just compensation for mining on private land, enforcement of approval conditions and effective dispute resolution are provided.

The MRSD Act makes it clear that the Act is to be administered having regard to the principles of sustainable development.<sup>138</sup> The principles are set out in the Act and include equity between generations, the precautionary principle, community involvement and wellbeing and the balance of economic and

<sup>132</sup> Government of Western Australia, *New standards support successful mine closure* (Media Statement, 20 August 2019) <<https://www.mediaStatements.wa.gov.au/Pages/McGowan/2019/08/New-standards-support-successful-mine-closure.aspx>>.

<sup>133</sup> Department of Mines, Industry Regulation and Safety, *Statutory Guidelines and Mine Closure Plan Guidance - how to prepare in accordance with the Statutory Guidelines 2020* (WA).

<sup>134</sup> Mark McGowan and WA Labor, *WA Labor digital transformation to supercharge mining industry* (Web Page, 2 March 2021) <<https://markmcgowan.com.au/2021/03/02/wa-labor-digital-transformation-to-supercharge-mining-industry/>>.

<sup>135</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 2, 2A.

<sup>136</sup> *Ibid*, s 1.

<sup>137</sup> *Ibid*, s 2.

<sup>138</sup> *Ibid*, s 2A, inserted in 2006.

environmental interests.<sup>139</sup> These principles do not directly address mine rehabilitation but are clearly relevant to that goal.

Any discussion of Victorian regulation of mine closure must acknowledge the significant issues of the Latrobe Valley coal mines and the unique regulatory adaptations tailored to them that are distinguished from the general regulation of mine closure. These distinctions will be discussed throughout this report, and aspects of those significant issues are considered in detail in the Latrobe Valley case study.

## 2.4.2 Future direction

The Victorian government, through its Earth Resources Regulation unit (ERR), issued a Regulatory Practice Strategy for the Rehabilitation of Earth Resources Sites (Strategy) in February 2020, elaborating the policy perspective on the promulgation of the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) (Regulations). The Strategy outlines the policy aims of rehabilitation planning and the regulatory intentions of ERR, emphasising the importance of effective rehabilitation planning to maintain both industry and community confidence in mining operators.<sup>140</sup> The four goals of the Strategy are:

- To protect people, land, infrastructure and the environment;
- To ensure land can be returned to a safe, stable and sustainable landform;
- To minimise the State's exposure to rehabilitation liability if mine operators default; and
- To enable ERR to be a best practice regulator.<sup>141</sup>

The terms of the Regulations are discussed in Stage 2 of this Report.

The goals of the incumbent government focus on incentivising progressive rehabilitation prior to achieving closure, generally regulating mine closure process whilst continuing to tailor regulation to the needs of individual mine sites.<sup>142</sup> Part of this overarching aim includes creating a system of financial assurance that can apply across the State and adequately account for rehabilitation cost estimates. The Victorian Auditor General's Office (VAGO) reported in *Rehabilitating Mines: Independent assurance report to Parliament 2020-21:1* (August 2020) (VAGO Report) that ERR was not effectively enforcing compliance with mine rehabilitation responsibilities under the MRSD Act and, as a result, Victoria was exposed to substantial financial risk.<sup>143</sup> The VAGO Report supports the above goals. Similar to the Queensland government, the Victorian government seeks to minimise residual risk to the State in the event that a mine site is abandoned without being properly rehabilitated and facilitate a smooth transition away from a mining economy for existing mining communities.<sup>144</sup> The current Minister for Energy, Environment and Climate Change, Lily D'Ambrosio, has discussed the importance of brown coal mine closure to the achievement of renewable energy targets, stating that 'a clear timeline for the end of brown coal generation in Victoria is essential'.<sup>145</sup>

Additionally, the incumbent government has said that a goal of its mine closure regulatory framework for the Latrobe Valley is to cooperate with local communities to allow a smooth economic transition whilst minimising unemployment.<sup>146</sup> The Latrobe Valley Mine Rehabilitation Commissioner, Professor Rae Mackay,

<sup>139</sup> Ibid, s 2A.

<sup>140</sup> *Regulatory Practice Strategy for the Rehabilitation of Earth Resources Sites 2020* (Vic) p 2.

<sup>141</sup> Ibid, p 3.

<sup>142</sup> Earth Resources, *LaTrobe Valley coal mine rehabilitation bonds* (Web Page, 6 January 2021) <<https://earthresources.vic.gov.au/community-and-land-use/key-site-updates/latrobe-valley-coal-mines/rehabilitation-bonds>>.

<sup>143</sup> Victorian Auditor General's Office, <[https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report\\_0.pdf](https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report_0.pdf)>.

<sup>144</sup> Ibid.

<sup>145</sup> Premier of Victoria, *Certainty for Workers and Communities in the Latrobe Valley* (Web Page, 1 June 2018) <<https://www.premier.vic.gov.au/certainty-workers-and-communities-latrobe-valley>>.

<sup>146</sup> Ibid.

stressed that “having adequate timeframes for mine rehabilitation... will help planning and consultation with the local communities regarding the future of these sites”.<sup>147</sup>

## 2.5 Summary of State Statutory Goals

As with the Commonwealth EPBC Act, it is questionable whether the statutory statements of ESD, including the precautionary principle, have a significant effect on the judicial interpretation of the environmental legislation in relation to mine closure. The State’s mining legislation relating to mine closure is far more developed than the Commonwealth legislation in giving effect to objectives of achieving mine closure planning, progressive rehabilitation and mine closure, and avoiding financial risks for State governments. These goals are more clearly expressed in Queensland and Victorian legislation, though only Victoria has an objects provision in the principal mining legislation, which includes a specific statement of a statutory objective that “land which has been mined is rehabilitated”. Western Australia tends to rely more on guidelines made under authority of statute to articulate its mine closure goals, leaving the statutorily implied goal of the Mining Act (and of the State Agreements) as focused on industry access to and exploitation of the State’s mineral resources. Future research on these goals could seek to ascertain what importance lies in the clear statutory expression of goals pertaining to mine closure in the mining legislation.

### 2.2 – 2.4 Future Research Point

While the goals of mine closure regulation are clearer in the State regimes, the clarity and coherence of the expression of those goals varies between the three States reviewed. Only Victoria has a clear statutory statement of an objective that “land which has been mined is rehabilitated”. While all three States are developing principles of progressive rehabilitation and closure of mines and securing financial provisioning to ensure effective mine closure, future research on these goals could seek to ascertain what importance lies in the clear statutory expression of goals pertaining to mine closure.

## 3 Institutions

This chapter provides an overview of the types of institutions that will be referred to regularly in Stage 2, and the role each is generally designed to perform. The resources industry is facilitated by a range of government, industry and community institutions and each is relevant to the regulation of mine closure and has the capacity to exert influence in different ways.

<sup>147</sup> Premier of Victoria, *Certainty for Workers and Communities in the Latrobe Valley* (Web Page, 1 June 2018) <<https://www.premier.vic.gov.au/certainty-workers-and-communities-latrobe-valley>>.

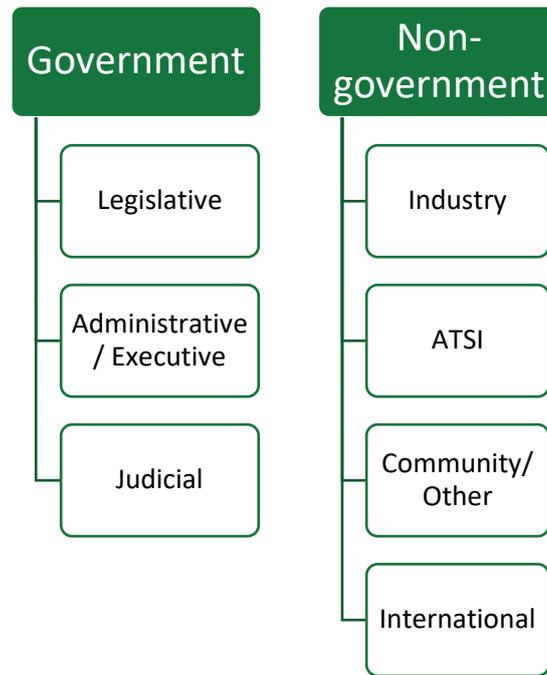


Figure 3.1 Types of institutions

## 3.1 Institutions, types and functions

### 3.1.1 Legislative

Australia has a federal system of government, meaning that parliaments at the national and State level are empowered to make laws within their constitutional limits: see section 3.2 below. The statutes enacted by the parliaments may also delegate legislative power, which is typically the power to make legally binding regulations conferred on the Commonwealth Governor-General or a State Governor. The State parliaments also have the constitutional authority to confer local law-making powers on local governments.

### 3.1.2 Administrative

As a general rule, the States and the Commonwealth are responsible for the administration of their own laws.<sup>148</sup> This requires them to create, fund and empower institutions of executive government whose purpose is to facilitate and enforce the law.<sup>149</sup> Most of these institutions of executive government are departments of the public service, subject to the political leadership and legal direction of a responsible minister, who is accountable to parliament. Some of these institutions may be given a degree of decision-making independence and be expressly free of ministerial direction, such as the Environmental Protection Authority of Western Australia.<sup>150</sup>

<sup>148</sup> Senate Select Committee on the Reform of the Australian Federation, *Australia's Federation: an agenda for reform* (30 June 2011).

<sup>149</sup> *Ibid.*

<sup>150</sup> *Environmental Protection Act 1986* (WA) s 8.

## Local Government

Local governments are often the closest point of contact for community members who have concerns related to mining activity in their local area. Each local government area has a local council, responsible for matters specific to that community. Whilst local councils can have input into State decisions and environmental approvals during the consultation process, they generally do not have direct authority to influence those decisions. Their primary role in a mining context is representing community interests to companies and the State government. However, local governments may be engaged if mine development requires changes to infrastructure or mine closure requires land use rezoning and land use development approval to facilitate post-mining land use. In these instances, local governments in rural regions, in particular, face many barriers, including insufficient funding and/or legislative power to actively engage in mine closure planning and implementation.

### 3.1.3 Judicial and Quasi-Judicial

The law is enforced through the Australian judicial system. Parliaments may also confer a range of both executive and judicial functions on quasi-judicial tribunals or bodies, some of which may be called a 'court'. Some States have legislated to establish a designated court with the jurisdiction to perform administrative and judicial functions relevant to natural resources and environmental law, including mining law. The administrative functions may relate to hearing of applications for and objections to the grant of mining leases or environmental authorisations. These functions may extend to the grant of the less significant tenures (such as mineral exploration licences) or to the recommendations regarding grant of the more significant resource tenures, such as mining leases or mineral production licences. The same body may also exercise specified appeal functions and judicial dispute resolution functions. These courts are usually presided over by a member with legal expertise and lower-level judicial appointment, such as a magistrate.

- Queensland has a specialised Land Court with a predominantly administrative function, with its key role of hearing submissions and objections pertaining to the mining lease and environmental authorisation applications.<sup>151</sup> It can also exercise some judicial functions; it can hear appeals against land valuations or local government rating categories and determine compensation for the resumption of land for public purposes and for mining operations.<sup>152</sup> The Court may also grant injunctions and approve cultural heritage management plans.<sup>153</sup>
- Western Australia has a Warden's Court established under Part VIII of the *Mining Act 1978* (WA) with the authority both to administer lease application and forfeiture proceedings under Part IV of the Act and to settle mining disputes arising under the Act, including making awards of compensation.<sup>154</sup> Lease application proceedings are administered with a high level of formality, similar to judicial proceedings, and the presiding Warden has jurisdiction to decide questions of law in those proceedings.<sup>155</sup> While there is a right of appeal to the Supreme Court against judicial decisions of a Warden's Court (s.147), questions of law arising from lease application and forfeiture proceedings are addressed by way of application for judicial review by the Supreme Court. Western Australia also has an independent advisory body, the Environmental Protection Authority, for conducting

<sup>151</sup> Queensland Courts, *Land Court* (Web Page, 30 March 2021) <<https://www.courts.qld.gov.au/courts/land-court>>.

<sup>152</sup> *Ibid.*

<sup>153</sup> *Ibid.*

<sup>154</sup> *Mining Act 1978* (WA) s 132-134

<sup>155</sup> Government of Western Australia Department of Mines, Industry Regulation and Safety, *Warden's Court* (Web Page, 2021) <<https://www.dmp.wa.gov.au/Minerals/Warden-s-Court-1533.aspx>>.

environmental impact assessment and making recommendations for ministerial decisions on environmental approvals.

- Victoria does not have a designated land, mining or environment court. However, the Victorian Civil and Administrative Tribunal (VCAT) has a designated 'Environment and Resources' list as part of its Planning and Environment List.<sup>156</sup> The State does have a Mining Warden who is empowered under the *Mineral Resources (Sustainable Development) Act 1990* (Vic) and can refer parties to mediation, conciliation or arbitration. The Warden's role is both administrative and judicial in nature; they can conduct hearings as a court to settle mining disputes. The Warden also has a broad investigatory function, which empowers it to investigate whether a mining licence applicant is a fit and proper person with the intention to comply with their legislative obligations.<sup>157</sup> However, the principal investigative process in relation to the grant of a mining licence seems to be the environmental effects process, which may be initiated by the Planning Minister, is conducted by an ad hoc panel (i.e. an expert panel appointed for the particular application), and which may hold extensive public consultation procedures culminating in a report that informs the Planning Minister to make advisory recommendations to other relevant ministers, who make the ultimate decisions to issue a mining lease or grant water licences (for example).

Ultimately disputes about questions of law that extend beyond the empowering legislation must still be determined in the Supreme Court of each State. As a result, the majority of influential and significant judicial decisions relevant to the mining and resources industry are determined in the relevant Supreme Court.<sup>158</sup> The costs of judicial review proceedings can be substantial for all parties, but especially so for the unsuccessful party as the normal rule is that 'costs follow the event',<sup>159</sup> even if that party may have little economic means and be motivated by public interests, even in part.

### 3.1.3.1 Common law framework

Despite the fact that no additional regulatory requirements for rehabilitation or closure can be imposed under mining laws after relinquishment of the mining lease, the common law framework can still be utilised to hold companies to account for particular forms of harm they may have caused.<sup>160</sup> For this to be successful, there needs to be a litigating party with a cause of action (for civil liability) or an offence (for criminal liability).<sup>161</sup> There may also be ongoing legislative obligations arising under other types of law, such as contaminated land law, public health law, or corporations law, as examples.

There are currently limited examples of aggrieved individuals instigating, much less successfully running, a case against a mining company.<sup>162</sup> To bring a civil lawsuit, the plaintiff must be able to establish a cause of action in the tort of negligence, (public and private) nuisance or breach of a statutory duty. For a case in negligence, the plaintiff must establish that there was a duty of care owed to the litigant, that the duty was breached, and that it was the breach of duty that caused a quantifiable loss to the plaintiff.<sup>163</sup> Under public nuisance, the plaintiff must show that the defendant endangered the life, health, property, morals or comfort of the public.<sup>164</sup> For a suit in private nuisance, the plaintiff must establish that the defendant has

<sup>156</sup> VCAT 'Environment and Planning disputes' <<https://www.vcat.vic.gov.au/case-types/environment-and-resources>>.

<sup>157</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 15(6).

<sup>158</sup> N Bedford, 'Public Accountability over major mining projects in Queensland' (2018) *Australian Public Law* (online) <<https://auspublaw.org/2018/06/public-accountability-over-major-mining-projects-in-queensland/>>.

<sup>159</sup> *Burragubba & Anor v Minister for Natural Resources and Mines & Anor (No 2)* [2017] QSC 265.

<sup>160</sup> C Ward, 'Miners' liability to redress reduced water quantity and quality after mine site closure: A case study of the Collie Coalfields in Western Australia' (2015) 32 *Environmental and Planning Law Journal* 469 – 474.

<sup>161</sup> *Ibid.*

<sup>162</sup> *Ibid.*

<sup>163</sup> *Ibid.*

<sup>164</sup> *Ibid.*

caused a substantial and unreasonable interference with the use or enjoyment of their land (or some right over or in connection with it), for example by material physical damage or interference by noise, light, dust, odour, flooding and so on. Breach of statutory duty is a civil action but requires demonstrable non-compliance with a legislative requirement.<sup>165</sup> For example, repeated failure to engage with the community in accordance with regulatory requirements could constitute a breach of statutory duty.

Even if a plaintiff brings an action, a defendant may present a range of defences and there may be a substantial limitation on the type of remedy available. A defendant may show that they had regulatory authority for their actions, so it will not be liable for nuisance.<sup>166</sup> The defendant can respond to an action in negligence by showing that they took reasonably necessary action to mitigate any loss or damage.<sup>167</sup> Even if a tort is made out, the options for remedy are usually limited to financial compensation or a mandatory injunction for the performance of a particular action, which may not adequately address the breadth of harm caused.<sup>168</sup> Nonetheless, the common law remains an option of post-closure redress and is largely consistent across all Australian jurisdictions.

### 3.1.4 Non-governmental institutions

#### 3.1.4.1 Industry

Industry bodies can play a key role in assisting mining companies to understand and comply with the evolving and often complicated nature of mine and resource regulation.<sup>169</sup> Industry bodies are private institutions and independent of government.<sup>170</sup> They are usually made up of, and act in the interests of, persons involved in the industry,<sup>171</sup> and are regarded by many as highly influential in public policy making.

#### 3.1.4.2 ATSI

Aboriginal and Torres Strait Islander (ATSI) organisations have an essential role to play in the mining and resources regulatory framework.<sup>172</sup> They represent the interests of the local ATSI peoples, on whose ancestral lands mining may take place.<sup>173</sup> There are often native title interests to be considered and registered native title bodies corporate will represent these rights and negotiate agreements with the corporation seeking to conduct mining operations.<sup>174</sup> However, if a mining lease was granted prior to Native Title rights being upheld, there is no legislative right given to Traditional Owners to negotiate with the mining company. Since many mines have decades long lifespans, there are still many mines operating on historically granted, pre-Native Title leases. ATSI organisations serve an even more critical function where there are no Native Title rights as they are often the only groups advocating for consultation and cooperation with Traditional Owners.

#### 3.1.4.3 Community

Finally, there are a range of relevant private organisations that undertake functions relevant to a range of community interests. These institutions may conduct research, provide educational services, advocate for

<sup>165</sup> C Ward, 'Miners' liability to redress reduced water quantity and quality after mine site closure: A case study of the Collie Coalfields in Western Australia' (2015) 32 *Environmental and Planning Law Journal* 469 – 474.

<sup>166</sup> *Ibid*, 474.

<sup>167</sup> *Ibid*.

<sup>168</sup> *Ibid*.

<sup>169</sup> Minerals Council of Australia, *About the MCA* (Web Page) <<https://minerals.org.au/about-mca>>.

<sup>170</sup> *Ibid*.

<sup>171</sup> *Ibid*.

<sup>172</sup> S Masige, *How mining supports Indigenous Australians* (Australian Mining, Web Page, 27 October 2017) <<https://www.australianmining.com.au/features/mining-supports-indigenous-australians/>>.

<sup>173</sup> *Ibid*.

<sup>174</sup> *Ibid*.

sustainability or advocate for the local communities located near mine sites, including in wardens' courts or the Queensland Land Court.

#### 3.1.4.4 International

Although Australia is not party to any international agreements on mine rehabilitation or related standards, there is still some international influence on the resources industry with regards to mine rehabilitation. The International Council on Mining and Metals (ICMM) is a multinational organisation which mining companies can elect to join.<sup>175</sup> The ICMM issues international expectations – as an example, Rio Tinto opted to adhere to the recently issued Global Industry Standard for Tailings Management, a joint standard between ICMM and other cooperative international bodies.<sup>176</sup>

## 3.2 Federal Division of Powers

### 3.2.1 Commonwealth

The regulation of mining and mine rehabilitation is primarily the remit of the States. The Commonwealth Constitution establishes the legislative, executive and judicial authority of the Commonwealth and allocates specific heads of legislative power to the Commonwealth Parliament, which largely defines the scope of Commonwealth executive and judicial authority. The Commonwealth Constitution recognises the States' constitutions and their legislative, executive and judicial bodies.

### 3.2.2 States

State parliaments have a general or plenary power to legislate on any matters for their State and may legislate on matters within Commonwealth power (with certain limited exceptions), so that Commonwealth and State legislatures powers may be exercised concurrently.<sup>177</sup> Where there is a legislative inconsistency, the Commonwealth legislation prevails to the extent of the inconsistency and the relevant State provisions are inoperative.<sup>178</sup>

The States have primary regulatory authority over natural resources and the environment for two reasons. First, there is no express Commonwealth power over resources and the environment, so the States plenary power to legislate enables them to regulate that space.<sup>179</sup> Second, the State's colonial constitutions, continued by the Commonwealth Constitution, confer on the State legislatures sovereign control of Crown lands, which the State legislatures have exercised to retain ownership of minerals on Crown lands. These State constitutional capacities, and the historical legacy of the exercise of that authority, affirms the States' primary role to regulate mine closure and rehabilitation, except where the Commonwealth can legislate to override State authority.

### 3.2.3 Territories power

Under section 122 of the Constitution the Commonwealth can legislate for the Northern Territory and the Australian Capital Territory (along with other minor territories such as Norfolk Island and Christmas Island).<sup>180</sup> However, in 1978 the Northern Territory was granted self-government under the *Northern Territory (Self-Government) Act 1978* (Cth).<sup>181</sup> There was some momentum for the Northern Territory to be granted Statehood, but a 1998 referendum decided in the negative and the question has not been put to the

<sup>175</sup> N Zakharia, *Rio Tinto introduces global standard for tailings* (Australian Mining, Web Page, 3 May 2021) <<https://www.australianmining.com.au/news/rio-tinto-implements-global-industry-standard-for-tailings/>>.

<sup>176</sup> *Ibid.*

<sup>177</sup> *Australian Constitution* s 51.

<sup>178</sup> *Ibid.*, s 109.

<sup>179</sup> *Ibid.*, s 51.

<sup>180</sup> *Ibid.*, s 122.

<sup>181</sup> *Northern Territory (Self-Government) Act 1978* (Cth).

population since.<sup>182</sup> As a result, the Commonwealth has retained some involvement in regulation of mining and resource issues, particularly in respect of uranium mining, in the Northern Territory.<sup>183</sup> The *Atomic Energy Act 1953* (Cth) and the *Radioactive Waste Management Act 2005* (Cth) are two examples of this.<sup>184</sup>

### 3.3 Commonwealth

#### 3.3.1 Overview of Constitutional powers

Whilst there is no express Constitutional provision for power to legislate on the environment, there are other powers that the Commonwealth is able to utilise to influence mining regulation. The most commonly utilised powers are summarised below.

##### 3.3.1.1 External affairs power

An increasingly relevant source of Commonwealth power in environmental and mining regulation is found in section 51(xxix) of the Constitution.<sup>185</sup> The external affairs power allows the Commonwealth to legislate to uphold its international obligations and to implement an undertaking that the government has made as part of a treaty or convention.<sup>186</sup> There is also the ability to regulate where there is no formal instrument of obligation but a matter is inherently of international concern; most of the nuclear energy industry, such as uranium mining, falls into this category of external affairs.<sup>187</sup> We have not found any significant international treaties concerning mine rehabilitation to which the Commonwealth is a party. However, it could be possible that some of the environmental treaties could support Commonwealth legislation with regulatory effect on mine closure.

##### 3.3.1.2 Corporations power

Section 51(xx) of the Constitution allows the Commonwealth to regulate any 'foreign corporations and trading or financial corporations formed within the limits of the Commonwealth'.<sup>188</sup> This is a broadly worded power and has been interpreted as such.<sup>189</sup> Any corporation that engages in trading activity (being the exchanging of goods, services and/or money) is captured, including the vast majority of the mining and resources industry.<sup>190</sup> The Commonwealth is, therefore, able to legislate with reference to mining rehabilitation and other activities of mining companies insofar as they are trading corporations.

##### 3.3.1.3 Financial power

The first financial power that can be, and historically has been, utilised is taxation (section 51(ii)).<sup>191</sup> Tax breaks can be given for the costs of rehabilitation; although this is an ineffective incentive when a company is already in administration or facing insolvency.

The second financial power, elaborated on below, is the power to make grants to the States.<sup>192</sup> This can be in the form of tied grants, which require the money to be used in a specified way. However, these do not allow

<sup>182</sup> B Judd, Why isn't the Northern Territory a State? (ABC News, Web Page, 29 June 2018) <<https://www.abc.net.au/news/2018-06-29/why-isnt-the-northern-territory-a-StateState-curious-darwin/9919676>>.

<sup>183</sup> Ibid.

<sup>184</sup> *Atomic Energy Act 1953* (Cth); *Radioactive Waste Management Act 2005* (Cth).

<sup>185</sup> *Australian Constitution* s 51(xxix).

<sup>186</sup> Parliament of Australia, Interpretation of the external affairs power and reform proposals (Web Page) <[https://www.aph.gov.au/parliamentary\\_business/committees/senate/legal\\_and\\_constitutional\\_affairs/completed\\_inquiries/p\\_re1996/treaty/report/c05](https://www.aph.gov.au/parliamentary_business/committees/senate/legal_and_constitutional_affairs/completed_inquiries/p_re1996/treaty/report/c05)>.

<sup>187</sup> Ibid.

<sup>188</sup> *Australian Constitution* s 51(xx).

<sup>189</sup> J Crawford, 'The Constitution and the Environment' (1991) 13(1) *Sydney Law Review* 24.

<sup>190</sup> Ibid.

<sup>191</sup> *Australian Constitution* s 51(ii).

<sup>192</sup> Ibid, s 96.

the Commonwealth to directly regulate mining rehabilitation. Finally, the Commonwealth has a general power to spend money in the national interest in relation to matters in respect of which it has legislative power.<sup>193</sup>

### 3.3.2 Key legislation

The Commonwealth takes a largely hands-off approach for a variety of reasons, which will be assessed in detail in Stage 2. The Department of Agriculture, Water and the Environment administers the *Environment Protection and Biodiversity Conservation Act* (EPBC Act).<sup>194</sup>

The EPBC Act is reviewed every ten years, with a review last undertaken in 2019-20.<sup>195</sup> The last Independent Review of the EPBC Act delivered its Final Report in October 2020 and found that the EPBC Act does not clearly define the outcomes it aims to achieve and does not provide sufficient constraints on discretion to ensure that development is sustainable.<sup>196</sup> The Report made key recommendations centred around the introduction of legally enforceable National Environmental Standards supported by regional planning.<sup>197</sup> Whilst none of the recommendations explicitly mention mining or mine rehabilitation, the introduction of National Environmental Standards could still carry implications for how the mining industry operates in terms of mine closure.<sup>198</sup>

### 3.3.3 Parliamentary Committees

One way in which the Commonwealth Parliament is able to influence the regulation of mining rehabilitation is through research and recommendations presented by relevant parliamentary committees. Committees can be created by either house of parliament, but the government of the day retains discretion over whether or not to adopt any committee recommendations and introduce implementing legislation.<sup>199</sup>

The Senate Environment and Communications Committee recently published a report on the 'Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities', largely authored and championed by the Australian Greens Party.<sup>200</sup> The report provided 32 recommendations for the Commonwealth government on behalf of the Australian Greens Party, largely focused on potential amendments to the EPBC Act.<sup>201</sup> It remains to be seen whether any of these will be adopted.

### 3.3.4 Cooperation with the States

A softer but often more impactful source of Commonwealth influence on mine rehabilitation is through its ability to influence and cooperate with the States. Interaction between the Commonwealth and the States on environmental regulation was primarily governed by the 1997 *Heads of Agreement on Commonwealth and State Roles and Responsibilities for the Environment* (HACSRRE), agreed by all heads of government and the Australian Local Government Association at the 1997 November Council of Australian Governments (COAG) meeting.<sup>202</sup> HACSRRE set general intentions for environmental management, however COAG ceased

<sup>193</sup> Ibid, ss 81-83. *Williams v Commonwealth* (2012) 248 CLR 156; *Williams v Commonwealth (No 2)* [2014] HCA 23; 88 ALJR 701.

<sup>194</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth)

<sup>195</sup> Professor Graeme Samuel AC, Independent Review of the EPBC Act (Final Report, October 2020) 81.

<sup>196</sup> Ibid, 48.

<sup>197</sup> Ibid, Recommendations 3, 4, 9, 11.

<sup>198</sup> Ibid, For example, Box 33, assessing cumulative impacts of proposed large coal mining developments at p.160.

<sup>199</sup> Parliament of Australia, Committees (Web Page) <[https://www.aph.gov.au/parliamentary\\_business/committees](https://www.aph.gov.au/parliamentary_business/committees)>.

<sup>200</sup> Senate Standing Committees on Environment and Communications, Parliament of Australia, Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities (20 March 2019).

<sup>201</sup> Ibid, 160.

<sup>202</sup> *Heads of Agreement on Commonwealth and State Roles and Responsibilities for the Environment 1997* (Cth); Australian Government Department of Agriculture, Water and the Environment, *Summary* (Web Page) <<https://www.environment.gov.au/epbc/publications/coag->

in May 2020.<sup>203</sup> It has been followed by the creation of a National Federation Reform Council (NFRC), which coordinates meetings of the National Cabinet.<sup>204</sup> The National Cabinet was created to coordinate Australia's COVID-19 response but it is anticipated that the National Cabinet and the NFRC will coordinate State and federal relations and recommend the creation of additional bodies if required.<sup>205</sup>

### 3.3.5 Non-governmental institutions

The Environmental Defender's Office is an environmental legal centre operating across Australia advocating for law reform to achieve ecologically sustainable development and providing legal representation for a range of environmental non-governmental organisations acting in the public interest.<sup>206</sup> Some national political or environmental groups, such as the Australian Greens Party and the Places You Love Alliance, have advocated for the Commonwealth to use its powers more broadly to create a unified regulatory framework for effective environmental management and land rehabilitation.<sup>207</sup>

However, industry bodies such as the Minerals Council of Australia counter this argument with the concern that this will merely create confusion and duplicate legislation.<sup>208</sup> It is not, they argue, about who exercises the power of regulation over mining rehabilitation, but rather the manner with which the power is exercised.<sup>209</sup> Industry lobbying advocates that existing regulations be made more effective rather than suggesting a systemic overhaul.<sup>210</sup>

An initial purpose of this regulatory mapping report was also to identify the potential for harmonisation of laws, both between the Commonwealth and the States and within State jurisdictions between different agencies administering different pillars of the regulatory framework. We have not been able to prepare that analysis.

### 3.3.6 Judicial institutions

The Federal Courts have the jurisdiction to interpret and apply federal law. The High Court of Australia decides constitutional disputes between the Commonwealth and the States.<sup>211</sup> Historically, the role of the High Court has been most significant in determining the power the Commonwealth to legislate on natural resources and environmental issues, and to ascertain how that affects the operation of State legislation.

## 3.4 Queensland

### 3.4.1 Key legislation

As noted above at 2.2.1, the *Mineral Resources Act 1989* (Qld) establishes the mineral resources tenure regime; that is, how applications for mining licenses and leases are made as well as the requirements for surrendering, transferring, forfeiting or otherwise ceasing to hold a mining lease. The *Environmental Protection Act 1994* (Qld) regulates the process and requirements of mine rehabilitation. The *Contaminated Land Act 1991* (Qld) sets out standards for the prevention, control and remediation of any land that becomes

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agreement#:~:text=In%20November%201997%2C%20the%20Council,and%20Responsibilities%20for%20the%20Environment.&ext=compliance%20with%20State%20environmental%20and,delivery%20of%20national%20environmental%20programmes>.

<sup>203</sup> Federation.gov.au, *National Federation Reform Council* (Web Page) <<https://federation.gov.au/nfrc>>.

<sup>204</sup> Ibid.

<sup>205</sup> Ibid.

<sup>206</sup> Environmental Defender's Office, *About* (Web Page) <<https://www.edo.org.au/about/>>.

<sup>207</sup> Senate Standing Committees on Environment and Communications, Parliament of Australia, *Rehabilitation of mining and resources projects as it relates to Commonwealth responsibilities* (20 March 2019); Places You Love, *Alliance Organisations* (Web Page) <<http://www.placesyoulove.org/alliance-organisations/>>.

<sup>208</sup> Minerals Council of Australia, *Annual Report 2019* (Annual Report) 5.

<sup>209</sup> Ibid.

<sup>210</sup> Ibid.

<sup>211</sup> *Federal Court of Australia Act 1978* (Cth) s 5; *Australian Constitution* s 71.

chemically contaminated.<sup>212</sup> Companies must also maintain up to date records of any contaminated sites and restrict their use.<sup>213</sup> Within the Government, the Queensland Treasury Corporation, the Department of Environment and Science (DES) and the Department of Resources<sup>214</sup> are largely responsible for policy formulation relevant to mine rehabilitation.<sup>215</sup>

The Queensland Government conducted extensive reviews of its regulation of mine rehabilitation in 2016 and consequently overhauled its policies in 2017. The result was the *Mined Land Rehabilitation Policy 2017* (Qld) (Rehabilitation Policy)<sup>216</sup> proposing the replacement of the existing regime of mine rehabilitation under the *Environmental Protection Act 1994*.<sup>217</sup> In 2018 the Queensland Parliament legislated for mine rehabilitation financial regulation through the *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) (MERFP Act). That Act also amended the *Environmental Protection Act 1994* to establish the requirement for lease holders to submit progressive rehabilitation and closure plans (PRC Plan). It also allowed the government to assess rehabilitation costs and prospectively require funds be allocated by the company for this cost.<sup>218</sup> In 2019, the Queensland government began a consultation process for a policy to address residual risks that remain on a rehabilitated mine site after it has been surrendered.<sup>219</sup> As a result, a residual risk framework was enacted in August 2020 by amendment to the MERFP Act establishing calculation tools and the use of an expert panel to assess the impact of various risks.<sup>220</sup> These statutory reforms led to some institutional reforms.

### 3.4.2 Administrative institutions

The regulation framework requires specialised administrative roles within the government. The MERFP Act establishes a financial provisioning scheme which is administered by a Scheme Manager within the Queensland Treasury.<sup>221</sup> The new Chapter 8A of the *Environmental Protection Act 1994* establishes a Rehabilitation Commissioner, which is an independent statutory position responsible for overseeing and reporting back on rehabilitation across Queensland.<sup>222</sup> James Purtill was appointed as the first Rehabilitation Commissioner, commencing in October of 2021.<sup>223</sup> Prior to this appointment, James Purtill was the Director General of the Department of Energy and Public Works.<sup>224</sup>

### 3.4.3 Non-governmental institutions

Conservation groups are highly engaged in lobbying the Queensland government. For example, five groups penned a joint letter to the government in April 2021, calling for legislative change definitively ensuring that

<sup>212</sup> *Contaminated Land Act 1991* (Qld)

<sup>213</sup> *Ibid*, s 25.

<sup>214</sup> Renamed in 2020 from the Department of Natural Resources, Mines and Energy; see Queensland Government, “A summary of changes to departments of government”, 12 November 2020, item 16.

<sup>215</sup> S Cooper, ‘Maximising post-mining land use: Queensland Government reforms’ (2019) *Australian Centre for Geomechanics* 969.

<sup>216</sup> *Mined Land Rehabilitation Policy 2017* (Qld); *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld).

<sup>217</sup> The Queensland Cabinet and Ministerial Directory, *Queensland to enhance its world leading mining rehabilitation framework* (Queensland Government, Web Page, 18 June 2020) <<https://StateStatements.qld.gov.au/StateStatements/90045>>.

<sup>218</sup> *Mined Land Rehabilitation Policy 2017* (Qld)

<sup>219</sup> Queensland Government Department of Environment and Science, *Policy and legislation changes* (Web Page, 29 September 2020) <<https://environment.des.qld.gov.au/management/policy-regulation/changes>>. See also Queensland Treasury, *Queensland Government Consultation Report: Managing Residual Risk in Queensland Discussion Paper*, February 2019: <<https://www.treasury.qld.gov.au/programs-and-policies/improving-rehabilitation-financial-assurance-outcomes-resources-sector/>>.

<sup>220</sup> *Environmental Protection and Other Legislation Amendment Act 2020* (Qld).

<sup>221</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) pt 2 div 1.

<sup>222</sup> *Environmental Protection Act 1994* (Qld) ch 8A, inserted in 2020.

<sup>223</sup> Queensland Government, Queensland Rehabilitation Commissioner (15 September 2021) <<https://www.qld.gov.au/environment/land/management/rehab-commissioner>>.

<sup>224</sup> *Ibid*.

mining corporations are not able to self-determine the amount of financial provision they will make for mine rehabilitation.<sup>225</sup> There is no indication yet of the Queensland Government's response to this request.

The Queensland Resources Council (QRC) is a peak industry body, which provides input into the policy drafting process and was involved in the development of the MERFP Act.<sup>226</sup> The QRC offers guidance to resource corporations on adhering to Queensland law and cooperates with the Abandoned Mine Lands Program, which is administered by the Department of Resources.<sup>227</sup> This program assesses abandoned mine sites in order to reduce risks to the public and environment.<sup>228</sup>

Some further important non-governmental institutions are:

- The Centre for Mined Land Rehabilitation at the University of Queensland (established in 1993) assists the government with policy development through continual research and development in the field.<sup>229</sup>
- AgForce is an industry body representing the Queensland agriculture industry and promoting sustainable, long-term growth.<sup>230</sup> They provide advice about the viability of a region's rehabilitation prospects.<sup>231</sup>
- The Queensland Conservation Council is an umbrella environmental organisation that campaigns on a broad range of environmental issues, including issues arising from mining.<sup>232</sup> There are also a number of local and special focus community environmental organisations that have been very active advocacy bodies in relation to mining issues, including in litigation; for example, the 'Oakey Coal Action Alliance' and 'Lock the Gate'.
- The Central Highlands Development Corporation is the main tourism and economic development agency for the Central Highlands region in Queensland.<sup>233</sup> They work with local communities to advocate for the industrial and environmental interests of the region.<sup>234</sup>
- The Australian Coal Industry's Research Program (ACARP) is a mining research body which has been operating since 1992 and includes research on the closure of black coal mines.

#### 3.4.4 Judicial institutions

Queensland has a Land Court with jurisdiction to hear appeals from internal review decisions under the MERFP Act.<sup>235</sup> Whilst Queensland's reformed mine rehabilitation and closure regime is still new, a decision delivered by the Land Court on 2 February 2021 is an early interpretation of the application of the law.<sup>236</sup>

Century Mining appealed to the Land Court on the basis that the estimated rehabilitation cost provided by the DES using the approved process in the *Environmental Protection Act 1994* was a substantial overestimate

<sup>225</sup> F Barton, Qld mine rehabilitation rules in doubt (The Canberra Times, Web Page, 14 April 2021) <<https://www.canberratimes.com.au/story/7209385/qld-mine-rehabilitation-rules-in-doubt/>>.

<sup>226</sup> Queensland Resources Council, *Rehabilitation and Surrender* (Web Page, 2021) <<https://www.qrc.org.au/policies/rehabilitation/>>.

<sup>227</sup> Ibid. Formerly, the Department of Natural Resources, Minerals and Environment.

<sup>228</sup> Ibid.

<sup>229</sup> Sustainable Minerals Institute, Centre for Mined Land Rehabilitation (The University of Queensland, Web Page) <<https://smi.uq.edu.au/cmlr>>.

<sup>230</sup> AgForce, *Advancing sustainable agribusiness* (Web Page, 30 April 2021) <<https://www.agforceqld.org.au/>>.

<sup>231</sup> Ibid.

<sup>232</sup> Queensland Conservation Council, <<https://www.queenslandconservation.org.au/>>.

<sup>233</sup> Central Highlands Development Corporation, *Mining and Energy* (Web Page, December 2019) <<https://chdc.com.au/mining-energy/development-register>>.

<sup>234</sup> Ibid.

<sup>235</sup> Above n 105.

<sup>236</sup> *Century Mining Limited v Department of Environment and Science* [2021] QLC 3.

compared to their own assessment.<sup>237</sup> The Land Court found that the correct estimate was approximately 46 million dollars less than the DES estimated rehabilitation cost.<sup>238</sup> The appeal was allowed and the decision of the DES was set aside and substituted with the estimate provided by Century Mining's expert.<sup>239</sup> This decision highlights the potential for disputes over the estimation of rehabilitation costs and raises important questions about the interpretation of the recent regulatory developments.

## 3.5 Western Australia

### 3.5.1 Key legislation

Western Australia introduced mine rehabilitation legislative reform before Queensland but has since evolved its regulatory system only in small increments through the issuing of guidelines. The primary obligation of mine closure regulation, enacted in 2010, is the requirement to include a 'Mine Closure Plan' (MCP) in a 'mining proposal' and to update that plan every three years: *Mining Act 1978 (WA)* (Mining Act) ss 700, 74(1)(ca)(i), 82A(2) and 84AA. This obligation is implemented in accordance with the *Mining Regulations 1981 (WA)*, which set out the process and time limits for making a mining proposal.<sup>240</sup> The Mining Act establishes the role of the Director General of Mines, and requires an MCP to meet the criteria set out in any guidelines made by the Director General of Mines.

The most recent development in Western Australian mine rehabilitation legislation was the *Mining Rehabilitation Fund Act 2012 (WA)* (MRF Act or MRF) and the *Mining Rehabilitation Fund Regulations 2013 (WA)* (MRF Regulations).<sup>241</sup> The MRF Act requires all companies with tenure under the Mining Act (excepting those covered by State Agreements not listed in the MRF Regulations) to report all data on site disturbances and contribute annually to the mining rehabilitation fund.<sup>242</sup> A post-implementation review of the MRF was conducted in 2018 and it is due for statutory review in 2022.<sup>243</sup>

It is important to note, and will be discussed further in Stage 2, that the Mining Act still requires companies with mining tenure to carry out their own rehabilitation works – the MRF is a State-sanctioned safety net to provide for financial recovery where a site is abandoned.<sup>244</sup>

The *Environmental Protection Act 1986 (WA)* is another significant statute in the regulation of mines in Western Australia. Part IV provides for environmental impact assessment (EIA) of 'significant proposals', which may often include mining proposals, and Part V regulates activities that may cause 'pollution', 'clearing of native vegetation' and / or 'environmental harm'.<sup>245</sup>

The *Contaminated Sites Act 2003 (WA)* and the accompanying Regulations set requirements for identifying, recording and managing contaminated sites and potentially dangerous chemicals.<sup>246</sup> It also sets out how contaminated sites are to be remediated according to a hierarchy of responsibility.<sup>247</sup>

State Agreements are Acts which take the form of a contract between a company or companies and the Government. Western Australia utilises State Agreements to incentivise and manage large scale projects by creating individual terms and conditions between companies and the Government. State Agreements have

<sup>237</sup> Ibid, QLC 3, 3.

<sup>238</sup> Ibid, QLC 3, 25.

<sup>239</sup> Ibid.

<sup>240</sup> *Mining Regulations 1981 (WA)* s 25AA.

<sup>241</sup> *Mining Rehabilitation Fund Act 2012 (WA)*; *Mining Rehabilitation Fund Regulations 2013 (WA)*.

<sup>242</sup> *Mining Rehabilitation Fund Act 2012 (WA)* ss 5-10.

<sup>243</sup> Government of Western Australia Department of Mines, Industry Regulation and Safety, Implementation Review complete (Web Page, 22 November 2018) <<https://www.dmp.wa.gov.au/News/MRF-Post-Implementation-Review-24750.aspx>>.

<sup>244</sup> *Mining Act 1978 (WA)* s 700; *Mining Rehabilitation Fund Act 2012 (WA)* s 6.

<sup>245</sup> *Environmental Protection Act 1986 (WA)* ss 3A, 45, 49, 50A and 50B, 51C.

<sup>246</sup> *Contaminated Sites Act 2003 (WA)*; *Contaminated Sites Regulations 2006 (WA)*.

<sup>247</sup> *Contaminated Sites Act 2003 (WA)* s 24.

been used in Western Australia since 1952 and have allowed for significant infrastructure developments to be undertaken by private companies. Each mine project is unique and State Agreements can create a tailored approach to matters that cannot, or cannot conveniently, be otherwise effectively dealt with by existing law, such as complex land tenure issues. State Agreements are negotiated and administered by the Department of Jobs, Tourism, Science and Innovation on behalf of the Western Australian Government. There are currently 64 active State Agreements.

The State Government has recently introduced the *Streamlining (Mining Amendment) Bill 2021 (WA)*. This Bill aims to reduce bureaucracy in the mine approvals process through the following measures:

- Establishing several ‘low-impact’ activities which can be approved through an automated system when a company submits a Low Impact Notification.
- Consolidating all conditions imposed on any mine into a single Approvals Statement, reforming the complex lease condition system used currently.
- Amalgamating mining proposals and MCPs into one Mine Development and Closure Proposal.

### 3.5.2 Administrative institutions

The Department of Mines, Industry Regulation and Safety (DMIRS) is chiefly responsible for mine closure regulation and administration. DMIRS publishes the MRF Guidelines to assist companies with their mine closure and reporting obligations under the MRF Act.<sup>248</sup> These are not statutory guidelines and are not legally enforceable.

The Mining Act provides for statutory Guidelines as approved by the Director General of Mines for the purposes of Division 3.<sup>249</sup> These Guidelines set the requirements for approval of Mining Proposals and MCPs. They must be publicly available, and accessible without charge.<sup>250</sup>

The Environmental Protection Authority (EPA) is an independent body, working separately from but collaboratively with the Department of Water and Environmental Regulation.<sup>251</sup> The EPA operates independently of DMIRS.<sup>252</sup> The EPA was created in 1971 as an independent statutory adviser to the Minister for the Environment; it was reconstituted under the *Environmental Protection Act 1986 (WA)*.<sup>253</sup> It is made up of five members appointed by the Governor on the recommendation of the Minister for Environment.<sup>254</sup> The EPA is not influenced by ministerial direction, but a key part of its role is to advise the Minister for Environment.<sup>255</sup> It both provides policy advice and conducts EIA.<sup>256</sup> For EIA, the EPA reports on its assessment of the environmental factors of proposals to the Minister for the Environment, who must consider the EPA recommendations in deciding with the relevant decision-making authorities whether to grant approval of the proposal. The EPA consistently lists mine rehabilitation as one of its core concerns in its Annual Reports.<sup>257</sup>

<sup>248</sup> Department of Mines, Industry Regulation and Safety Statutory Guidelines and Mine Closure Plan Guidance - how to prepare in accordance with the Statutory Guidelines 2020 (WA).

<sup>249</sup> *Mining Act 1978 (WA)* s 700.

<sup>250</sup> *Ibid*, s 70P.

<sup>251</sup> Government of Western Australia, About the Environmental Protection Authority EPA (2021) <<https://www.epa.wa.gov.au/about-environmental-protection-authority>>.

<sup>252</sup> Government of Western Australia Department of Mines, Industry Regulation and Safety, Resource and Environmental Regulation (Web Page) <<https://www.dmirs.wa.gov.au/resource-environmental-regulation>>.

<sup>253</sup> Environmental Protection Authority, *The role of the EPA* (Government of Western Australia, Web Page) <<https://www.epa.wa.gov.au/role-epa>>; *Environmental Protection Act 1986 (WA)* pt 2.

<sup>254</sup> *Ibid*.

<sup>255</sup> *Ibid*.

<sup>256</sup> *Environmental Protection Act 1986 (WA)* s 7.

<sup>257</sup> Environmental Protection Authority, *Annual Report 2019-2020* (Annual Report, October 2020) 10, 18.

The MRF Regulations create the Mining Rehabilitation Advisory Panel, the members of which are responsible for advising on the rehabilitation of abandoned mine sites using funds from the MRF.<sup>258</sup> DMIRS has the administrative responsibility for mine rehabilitation and regulatory enforcement, except where there is a Ministerial condition relevant to closure or rehabilitation imposed.<sup>259</sup> DMIRS conducts audits each year of the data provided by companies with mining tenure and the State utilises this data when approving or monitoring a mining project.<sup>260</sup>

There are also regional government bodies that assist in an administrative capacity. For example, the Pilbara Development Commission is a government funded organisation that works specifically in the Pilbara region of Northern Western Australia to optimise economic development in the region and provide advice to businesses in the region.<sup>261</sup> It works collaboratively with local Aboriginal corporations.<sup>262</sup>

### 3.5.3 Non-governmental institutions

Comparable to Queensland, another source of political influence in Western Australia comes from the competing lobbying of activist groups and industry. Western Australia, and by extension the entirety of Australia, is highly dependent on a successful mining industry and all governments aim to support the industry.<sup>263</sup> At the same time, there are sections of the community that contest some mining proposals because of concerns about environmental, social and economic impacts. As a result, there is an ongoing legitimate political contest between mining industry and other community organisations about the state of our mining laws, on the social license of mining companies, and amendments to the existing regulatory framework.

The Chamber of Minerals and Energy WA is an industry advocacy group akin to the Queensland Resources Council.<sup>264</sup> They provide policy advice and advocate for mining and resources companies, which can assist the industry in regulating itself, reducing the administrative burden on regulatory authorities.<sup>265</sup>

The Conservation Council of WA is the leading environmental advocate in the State, but there have been numerous local community groups that have engaged with advocacy about mining industry regulation. No such organisations were engaged with this research project.

The Association of Mining and Exploration Companies is a national organisation with influence in Western Australia. Their membership is made up of 375 companies in the mining industry and they advocate for increased mining opportunities in Australia and a reduction in regulatory obstacles. They lobby governments as well as promoting the best interests of mining companies to the public and local communities.

Aboriginal Corporations also have influence on mining and mining rehabilitation in Western Australia. The Ngadju Conservation Aboriginal Corporation, which works with the local communities to maximise land management and conservation opportunities was engaged with this research project.<sup>266</sup>

<sup>258</sup> *Mining Rehabilitation Fund Act 2012 (WA)* s 33.

<sup>259</sup> Government of Western Australia Department of Mines, Industry Regulation and Safety, *Minerals and Mining Legislation and Compliance* (Web Page) <<https://www.dmp.wa.gov.au/Minerals/Legislation-and-compliance-6224.aspx>>.

<sup>260</sup> Government of Western Australia Department of Mines, Industry Regulation and Safety, *Audits* (Web Page) <<https://www.dmp.wa.gov.au/Safety/Audits-16148.aspx>>.

<sup>261</sup> Pilbara Development Commission, *Who we are* (Government of Western Australia, Web Page) <<https://www.pdc.wa.gov.au/commission/about-us/who-we-are>>.

<sup>262</sup> *Ibid.*

<sup>263</sup> A Garnet, 'Australia's 'five pillar economy': mining' (1 May 2015) *The Conversation* <<https://theconversation.com/australias-five-pillar-economy-mining-40701>>.

<sup>264</sup> Chamber of Minerals and Energy, *Policy Areas* (Web Page) <<https://www.cmewa.com.au/policy-advocacy/policy-areas/>>.

<sup>265</sup> *Ibid.*

<sup>266</sup> Ngadju Conservation Organisation, *About us* (Web Page) <<https://ngadjuconservation.org/about-us/>>; The Yinhawangka Aboriginal Corporation was also originally engaged with the project but its participation was not sustained, *History* (Web Page) <<http://www.yinhawangka.com.au/history/>>.

### 3.5.4 Judicial institutions

The Warden’s Court is established under the Mining Act with jurisdiction to hear disputes arising from minerals exploration and production operations.<sup>267</sup> It has both administrative and judicial functions.<sup>268</sup> The key administrative functions are hearing applications for and objections to the grant of leases, the proper conduct of which are seen as vitally important to the fair administration of the Mining Act.<sup>269</sup> The Court also has the administrative authority to grant certain licences, appoint receivers and suspend or cease mining operations.<sup>270</sup> The Court has significant judicial powers.<sup>271</sup>

The breadth of the statutory discretion given to the Minister and prescribed officials to approve mining proposals and the mine closure plans suggests little likelihood of there being judicial consideration of the exercise of that discretion. The amount of the MRF levy that a lease holder is to contribute is determined by the CEO of DMIRS, and a person who is dissatisfied with a decision of the CEO on an objection to the levy may apply to the State Administrative Tribunal for a review of the decision.<sup>272</sup>

## 3.6 Victoria

### 3.6.1 Key legislation

The key legislation relevant to Victorian mine rehabilitation is the *Mineral Resources (Sustainable Development) Act 1990 (Vic)* (MRSD Act).<sup>273</sup> Under the MRSD Act, the holder of a mining licence must progressively rehabilitate land in accordance with an approved rehabilitation plan.<sup>274</sup> The MRSD Act and regulations set out the requirements for the rehabilitation plan.<sup>275</sup> Generally, a bond will be required.<sup>276</sup>

Mine operators in Victoria are required to provide a rehabilitation plan along with their work plan before they can commence operations, a requirement which has been in place for decades. The MRSD Act was amended in 2019-20 to insert provisions relating to the rehabilitation of ‘declared mine land’ and the establishment of the Mine Land Rehabilitation Authority (MLRA) with significant new functions and duties, including oversight of the new Regional Rehabilitation Strategy and the coordination and evaluation of the implementation of rehabilitation planning activities.<sup>277</sup> These provisions were part of the incumbent Victorian government’s response to recommendations the Hazelwood Mine Fire Inquiry.<sup>278</sup>

Despite this recent development, Victoria continues to use a bond system of rehabilitation finance,<sup>279</sup> whereby companies purchase rehabilitation bonds in the form of a bank guarantee that will be relinquished when they successfully rehabilitate a mine site.

<sup>267</sup> Above n 108.

<sup>268</sup> *Mining Act 1978 (WA)* ss 132-134.

<sup>269</sup> *Forrest & Forrest v Wilson* [2017] HCA 30 at [85]-[88].

<sup>270</sup> Above n 108.

<sup>271</sup> Above n 108.

<sup>272</sup> *Mining Rehabilitation Fund Act 2012 (WA)* ss 11-24.

<sup>273</sup> *Mineral Resources (Sustainable Development) Act 1990 (Vic)*.

<sup>274</sup> *Mineral Resources (Sustainable Development) Act 1990 (Vic)*, Sections 78(1) & 81.

<sup>275</sup> *Ibid*, Section 79.

<sup>276</sup> *Ibid*, Sections 79A & 80.

<sup>277</sup> *Mineral Resources (Sustainable Development) Amendment Act 2019 (Vic)*, parts of which were proclaimed into operation in October 2019 and the bulk of which was proclaimed into operation in August 2020, including a new pt 7A “Mine Land Rehabilitation Authority”, pt 7 B Regional rehabilitation strategy, and 7C Declare mine land rehabilitation. The MLRA replaced the LaTrobe Valley Rehabilitation Commissioner.

<sup>278</sup> Vic.gov.au, Hazelwood Mine fire inquiry - Victorian Government response and actions (Web Page, 30 March 2021) <<https://www.vic.gov.au/hazelwood-mine-fire-inquiry-victorian-government-response-and-actions>>.

<sup>279</sup> *Mineral Resources (Sustainable Development) Act 1990 (Vic)* ss 26(2)(a) & (g), 42(1)(b), 43(1)(b), 77(3)(b), and 80.

### 3.6.2 Administrative institutions

The Department of Environment, Land, Water and Planning (DELWP) and the Department of Jobs, Precincts and Regions (DJPR) have the most significant roles in developing and implementing mine rehabilitation policy.<sup>280</sup> They are also responsible for cooperatively managing abandoned and legacy mines on State land.

Within DJPR, the Earth Resources Regulation (ERR) unit is the primary mining regulator but, due to the way it exists within the DJPR, questions have been raised regarding its independence.<sup>281</sup> The Environment Protection Authority Victoria regulates offsite environmental impacts of mining and enforces the general environmental duty.<sup>282</sup> Local councils also play a role, mainly in relation to land use planning and setting planning objectives.

The MLRA was established in June 2020 as the replacement for the Latrobe Valley Mine Rehabilitation Commissioner.<sup>283</sup> The MLRA has both an administrative and advisory role to the Minister for Resources.<sup>284</sup> It is the MLRA's responsibility to monitor and manage declared mine land and coordinate rehabilitation activities.<sup>285</sup> Currently, only the Latrobe Valley mines are declared.

### 3.6.3 Non-governmental institutions

The Minerals Council of Australia Victorian Division represents the interest of member companies operating in the minerals industry in Victoria.<sup>286</sup>

Environment Victoria, Environmental Justice Australia and Friends of the Earth are independent NGOs which campaigns on a wide range of environmental conservation issues. One of Environment Victoria's current campaigns is 'Victoria Beyond Coal', which calls for a transition to renewable energy and climate rehabilitation.<sup>287</sup> It recently reported on "Water availability and Latrobe Valley coal mine rehabilitation".<sup>288</sup>

There are also active Aboriginal bodies in Victoria, including native title bodies and the Victorian Aboriginal Executive Council.

Victoria also has independent industry and research bodies that contribute to policy development and information dissemination.

### 3.6.4 Judicial institutions

Akin to Western Australia, the current Victorian mine rehabilitation regulatory framework has not been litigated in the higher courts of the State.<sup>289</sup> Disputes are settled through the Mining Warden or VCAT, however there have not been any significant cases addressing contentious points within mine closure and

<sup>280</sup> Department of Environment, Land, Water and Planning, What we do (Victoria State Government, Web Page, 31 July 2020) <<https://www.delwp.vic.gov.au/our-department/what-we-do>>; Department of Jobs, Precincts and Regions, Mining and resources (Victoria State Government, Web Page) <<https://djpr.vic.gov.au/what-we-do/mining-and-resources>>.

<sup>281</sup> Department of Jobs, Precincts and Regions, *Earth Resources Regulation* (Victoria State Government, Web Page) <<https://earthresources.vic.gov.au/about-us/our-role/earth-resources-regulation>>.

<sup>282</sup> Environment Protection Authority Victoria, *About EPA* (Web Page) <<https://www.epa.vic.gov.au/about-epa>>.

<sup>283</sup> *Mineral Resources (Sustainable Development) Amendment Act 2020 (Vic)* s 1.

<sup>284</sup> *Ibid*, pt 7A.

<sup>285</sup> *Ibid*, pt 7A.

<sup>286</sup> Minerals Council of Australia, MCA Victoria: <<https://minerals.org.au/mca-victoria>>.

<sup>287</sup> Environment Victoria, *Who we are* (Web Page) <<https://environmentvictoria.org.au/who-we-are/>>.

<sup>288</sup> Environment Victoria, Reports, 10 December 2020: <<https://environmentvictoria.org.au/2020/12/10/water-availability-and-latrobe-valley-coal-mine-rehabilitation/>>.

<sup>289</sup> R Mackay et al, 'Mine rehabilitation in the Latrobe Valley, the start of a long journey: the Commissioner's role' (2019) *Australian Centre for Geomechanics* 803, 805.

rehabilitation regulation. The case study of the LaTrobe Valley, accompanying this Report, is the most significant example of mine rehabilitation in Victoria and is still in the development and planning phase.<sup>290</sup>

### 3.7 Summary of Institutions

Figure 3.1 gives a simple overview of the range of governmental and non-governmental institutions to be found in each jurisdiction reviewed. While there is a discernible high-level pattern to the broad character of these institutions and the constituting legislation, as well as applicable common law principles, there is significant variation in the detail of the arrangements in each jurisdiction. For example, that is illustrated by the differences in the format of bodies that may hear applications for and objections to the grant of mining leases or licences and environmental authorisations.

For instance, Queensland has a Land Court that can hear such applications and objections for the grant of both mining leases and environmental authorisations in an integrated process. The procedures and capacities of the Land Court apply (apparently) equally to decision-making in respect of both instruments and the Land Court makes recommendations to the different relevant decision-makers. The Land Court can also exercise certain judicial functions, such as determining disputes over compensation.

In contrast, the Western Australian Warden's Court hears applications and objections for mining leases and can determine certain legal disputes in relation to mining ventures, including compensation of affected landholders, but it has no decision-making function in relation to environmental authorisations other than in so far as objectors may argue for mining lease conditions that protect the land and environmental values that may also be regulated under other legislation, such as pollution control and access to water resources regulated by another agency, in relation to which the Warden's Court has no real jurisdiction. The other key institution is the Environmental Protection Authority, which manages environmental impact assessment but with a function limited to advising on environmental factors. There is not the same opportunity as in the Queensland Land Court to weigh transparently the competing economic, social and environmental factors. Instead, that role vests only in the Ministers or senior officers who simply issue the instruments and do not need to give reasons.

The structure and roles of the Victorian regime of institutions are different again. While there is a mining warden with modest functions, and certain appeal functions are vested in the VCAT, the key public consultative process is the environmental effects inquiry and report conducted by an ad hoc panel that culminates in advice informing the Planning Minister's recommendations to the ultimate decision-makers issuing the mining licence and other instruments needed for a project.

The outcomes of the procedures conducted by these institutions in each State may also be accredited to inform Commonwealth decision-making under the EPBC Act. We have not had the opportunity to research and assess the accreditation criteria and evaluate how it is that such different institutional designs can meet the Commonwealth's accreditation criteria and how this may affect decision-making about mine rehabilitation and closure.

It is important to understand each State's institutional framework in approaching Stage 2 of the report, which explains in detail the procedures for mine closure planning, rehabilitation and transition. At this stage, it is not feasible to suggest research questions that may be pursued distinctively in relation to the institutions; it is better to incorporate the institutional arrangements into a research consideration of the extensive procedures explored in Stage 2. The exception to that could be to pursue research on the Commonwealth accreditation of State procedures for environmental impact assessment to identify the core criteria of those accreditation decisions.

<sup>290</sup> Premier of Victoria, *Better Guidance On Latrobe Valley Mine Rehabilitation* (Web Page, 11 September 2019) <<https://www.premier.vic.gov.au/better-guidance-latrobe-valley-mine-rehabilitation>>.

### 3.1 – 3.6 Future Research Point

It is important to understand each State's institutional framework in approaching Stage 2 of the report, which explains in detail the procedures for mine closure planning, rehabilitation and transition. At this stage, it is not feasible to suggest research questions that may be pursued distinctively in relation to the institutions; it is better to incorporate the institutional arrangements into a research consideration of the extensive procedures explored in Stage 2. The exception to that could be to pursue research on the Commonwealth accreditation of State procedures for environmental impact assessment to identify the core criteria of those accreditation decisions and whether they may inform design criteria for State institutions.

## 3.8 Conclusions to Stage 1

Stage 1 has discussed the core concepts, goals and institutions relevant to mine closure and rehabilitation revealed in Australian legislation, particularly the State legislation. We have focused on the legislation that can broadly be described as the mineral resources tenure and the environmental protection legislation that serve three broad goals in relation to mine rehabilitation, closure and transitions to post-mining land use; namely,

1. Mine closure planning for the duration of the life of the mine;
2. Progressive mine rehabilitation and effective relinquishment of mine tenure only after rehabilitation, repurposing and closure has been achieved against agreed criteria and residual risk addressed;
3. Financial security provisioning to ensure that mine operators are incentivised to rehabilitate and relinquish the mined land at the miner's expense and with minimal financial risk for the State Governments, which already have large legacies of abandoned mines to rehabilitate.

The regulation of mine site rehabilitation is still evolving in the Australian legislative landscape. For example, we found that there are both established core concepts and evolving concepts that are central to understanding and effectively regulating mine rehabilitation.

Legislative reforms are still being made to define clearer goals and create new institutions and regulatory procedures to achieve them. Successful rehabilitation and repurposing of the land for a sustainable post-mine land use is now the target of mine closure, but achieving this is still rare. However, whilst the aspiration of effective and efficient closure is held unanimously, institutions are tasked with balancing continual incentivisation of industrial development and investment with accountability and enforcement of increasingly thorough closure and rehabilitation conditions. Further, although there are pushes for cohesive national definitions of core mining concepts to be adopted by government and industry, and there are practical interests from the States to have their institutions and procedures accredited for Commonwealth EPBC Act purposes, we have yet to ascertain a strong movement from either industry or State governments towards national harmonisation of regulatory procedures and any accompanying standards. It is possible that there is a stronger interest in such national standards from community organisations.

We have devised some research questions across chapters 1 – 3, which are also summarised in chapter 10.

# Stage 2 Report

## 4 Core Concepts for Stage 2

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Stage 2 of this Report will focus on mapping the frameworks of regulatory instruments and procedures for mine closure and rehabilitation in each of the relevant jurisdictions (Western Australia, Queensland and Victoria), identifying the variations in their design across the three jurisdictions. Also, while Stage 1 set the stage for a discussion of institutional design, Stage 2 elaborates on that discussion by pointing to the roles and operation of designated administrative agencies as a core element of the administration of the regulatory instruments and procedures. Stage 2 will also carry through the Stage 1 discussion of regulatory aspirations, particularly in the context of prospective reforms and potential future directions for the regulatory frameworks.

To provide a cohesive analysis of these frameworks of instruments and procedures, Stage 2 of the Report is structured in three main chapters (5, 6 and 7) that reflect the three broad phases of mine life: pre-mine operation, during operation and post operation. Within each of these chapters, we will consider the mining lease holder's duties, the community's rights and the government's duties and responsibilities for each jurisdiction. Chapter 8 concludes Stage 2 with a spotlight on regulatory challenges of achieving rehabilitation and relinquishment of the Iluka mineral sands mine at the South Capel wetlands in Western Australia.

It is also important to emphasise once again that this project is predominantly considering mining and environmental law, whilst it acknowledges the interaction of a range of other fields of law including tax law, investment law, public health law, water law, planning and development law and Native Title, to name a few. Throughout this stage of the Report, we will undertake regular comparative analysis of the legal and policy propositions that emerge in each chapter from each jurisdiction. These comparative analyses will inform our recommendations for future research directions.

In Stage 3 we will consider the empirical evidence of the experience with the regulatory frameworks gathered through interviews with relevant stakeholders.

Before commencing the detailed discussion of each jurisdiction's regulatory framework, we have outlined in this chapter 4 the key themes that will inform the comparative analysis in the conclusions to each chapter of this stage of the report. This chapter 4 introduces some core concepts for the Stage 2 discussion and gives overviews of the regulatory frameworks in each jurisdiction. Following that, we briefly introduce each jurisdiction with a glossary of key terms and a succinct overview of the key legislation and institutions that form the core of each jurisdiction's regulatory framework for mine closure.

### 4.1 Themes for Comparative Analysis

#### 4.1.1 Transparency

A recurring theme across pre, during and post-mine operation is the facilitation or lack thereof, of transparency. Transparency in mine closure, in the context of this report, refers to the accessible publication of information produced by mine operators or regulatory bodies relevant to mining and mine closure. This commonly includes the documents provided during the approvals process and any following amendment processes. However, achieving transparency is not as simple as having that information somewhere in the public domain. For information to be truly transparent it needs to be easily found and accessed. Once accessed, it also needs to be able to be comprehended by any reasonable member of the population without

industry specific knowledge. In other words, the information's existence in the public domain is not equated to the information being transparent to the general public.

Transparency obligations are often subject to competing legal obligations, which can take precedence over public rights to information (where they exist). An example of this are rights of commercial confidentiality over sensitive information that threaten the company's business success.

#### 4.1.2 Accountability

Transparency and accountability are closely linked. Mine operators are accountable to regulatory authorities to maintain their licence to operate. They are also accountable to the general public to maintain their social licence to operate, being the level of trust and acceptance of the operation and the industry within the community. Maintaining that trust requires a degree of transparency because the general public are disempowered by insufficient information and cannot effectively endorse or object to mining, mine closure or rehabilitation activity. In order for public access to information to create accountability for government and industry, that information needs to be provided at a time prior to any final decision making, and it needs to be accompanied by avenues for comment and objection.

The definition of accountability in the context of this report refers to the ability of government and/or the public to alter the actions of mine operators where those actions violate regulatory requirements or community expectations. Avenues for accountability can include government enforcing penalties, amending or cancelling mining licences, and community members taking legal action by way of judicial review or community protest.

#### 4.1.3 Predictability

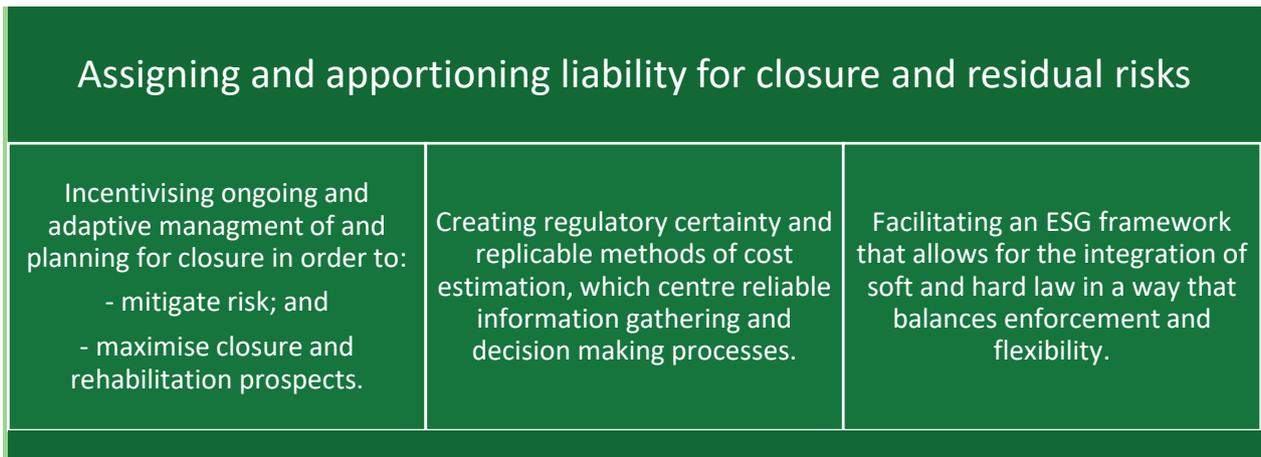
Predictability in this report focuses specifically on whether regulatory outcomes and expectations are predictable. It means the degree to which regulatory requirements are consistent and lead to reliable outcomes for stakeholders. Obtaining that kind of certainty through regulation necessitates a high level of clarity and is antithetical to variation and moveability within requirements. Predictability is only one side of the coin and must be balanced with sufficient flexibility to achieve adaptive management.

#### 4.1.4 Flexibility

Flexibility is the counterbalance to predictability. It refers to the capacity of regulation to be expressed generally enough that it can be apply flexibly to individual circumstances and appropriately adapted to evolving knowledge. It usually requires regulatory wording to incorporate room for discretion on the part of the regulator and often facilitates ongoing amendment, development and/or negotiation. In the context of mine closure and rehabilitation, flexibility often also requires the regulations themselves to be capable of evolving over time to keep pace with scientific knowledge, changing political and economic climates and community expectation.

#### 4.1.5 Liability

Liability, in the context of this report, refers specifically to legal liability, and is usually financial in nature. It is, within this report, referring to the enforceable onus that can be placed on a party to assume (often through financial means) responsibility for a site and any harm or damage that may have occurred due to conditions of that site. A mine operator will be liable, for example, to rectify and/or provide affected parties with compensation for the consequences of any contaminated land. After relinquishment has occurred, the State or other private landowner will usually be liable. Liability may also include criminal liabilities under enforcement action to ensure accountability.



**Figure 4.1 Liability for closure and residual risks**

#### 4.1.6 Residual risk

To give context to the analysis of the regulatory frameworks below, it is necessary to build on the introduction to residual risk provided in Stage 1. Residual risks are those risks that remain after existing, identified risks have been managed and controlled.<sup>291</sup> They can persist after all regulatory obligations have been met and the mining tenure has been relinquished, and generally pass to the relevant State to be managed and addressed.<sup>292</sup> Residual risks are undesirable due to their unpredictable and potentially long-term impacts on the environment, communities and the reputation of the mining company. Mitigation of residual risks reduce the potential financial liability of the relevant company and State government, and is a large motivation for effective mine closure planning and implementation.

Residual risks must be assessed by the regulator when assessing a mine closure or rehabilitation plan, along with any remaining mitigating action to be taken. Ideally, post-closure regulation and legal liability will act as a last resort; if continual planning and closure operation has been conducted in accordance with comprehensively drafted regulations and industry standards, the closure process should be effective in minimising residual risk and assigning clear responsibility for it.

When assessing how the law addresses residual risk, it is helpful to consider the different kinds of risk that might arise at the end of a mine life cycle. It is important to note that there is a lack of clarity in how residual risks are defined and what weight they are to be given under existing legal frameworks and this can be a hindrance to optimal closure. Exactly what is an 'acceptable level' of residual risk and who is responsible for it, and the appropriate person to make those decisions, are still matters of debate, particularly given that some risks exist into perpetuity.<sup>293</sup> The range of risks that may present themselves requires the regulatory framework to be nuanced and flexible enough to incentivise transformative closure without stifling operations. At the same time, industry and other relevant stakeholders need certainty and replicability in the risk assessment process to estimate properly what action needs to be undertaken to minimize risks to an acceptable level and the associated costs.<sup>294</sup> The diagram below lists common categories of risk and provides some examples of residual risks in each category.

<sup>291</sup> International Council on Mining and Metals (2019) *Integrated Mine Closure Good Practice Guide*.

<sup>292</sup> Queensland Government, Department of Environment and Science (2018) *Managing residual risks in Queensland*, Discussion Paper, 9.

<sup>294</sup> Sanders et al, 'Mine closure residual risk management: identifying and managing credible failure modes for tailings and mine waste' (2019) *Australian Centre for Geomechanics* 537.

<b>Cultural</b>	<ul style="list-style-type: none"> <li>• Destruction of or damage to culturally significant sites due to landform failure or contamination.</li> <li>• Displacement of Traditional Owners from their ancestral lands due to ongoing safety risks.</li> </ul>
<b>Ecological</b>	<ul style="list-style-type: none"> <li>• Diversion of water supply resulting in death of flora.</li> <li>• Contaminating chemicals such as sulphites altering the fertility of the soil.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• Common law liability for negligence or nuisance.</li> <li>• Financial liability into perpetuity for long-term residual risks.</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>• Waste rock dumps, tailings, voids and other physical structures presenting a risk of collapse.</li> <li>• Contaminating chemicals entering the water supply for local communities.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• Community relations and the social license to operate.</li> <li>• Maintenance of services previously provided by the mining company, such as dental care.</li> </ul>

Figure 4.2 Categories of risk

## 4.2 State Overviews

### 4.2.1 Western Australia

#### 4.2.1.1 Glossary

MCP	Mine closure plan
EPA	Environmental Protection Authority
DMIRS	Department of Mines, Industry Regulation and Safety
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
Mining Act	<i>Mining Act 1978 (WA)</i>

#### 4.2.1.2 Overview

Western Australia, as with Queensland and Victoria, has many mines across the State which are approaching, or actively undergoing, closure. Western Australia's regulatory framework rests heavily on mine closure planning processes to establish conditions of mine closure, with recent substantial reform continuing to evolve. Some recently proposed legislative amendments will be discussed during this stage of the report. Mining leases can be granted through one of two pathways:

- A mine proposal is submitted, including an MCP, with the application for a mining lease and must be considered before the lease is granted.
- Under the second pathway, the application for a mining lease can be granted on the condition that a mining proposal and MCP is provided prior to the commencement of operations.

An MCP is modified throughout the lifetime of a mine and the standards required to meet any conditions existing at the time of closure must be negotiated and agreed between the operator and State before tenement relinquishment can occur. A mine lease application can also be referred for an environmental assessment, which is evaluated by the EPA.

Western Australia also uses a system of annual payments into a pooled fund to account for any remaining financial liability that may arise after relinquishment and fall to the State. This was a significant system change introduced to replace the bonds system in 2012. Relative to the life of large mine sites, this is still a recent reform.

Western Australia’s relinquishment process is dependent on the relevant Government Department(s) certifying that the MCP requirements have been met. It is usually a process that requires extensive negotiation between stakeholders and scientific research to determine what sustainable outcomes are. This can be done partially or in stages.

A unique feature of the Western Australian system is the continued use of State Agreements, which operate as contracts independently of other legislated mine closure and financial assurance requirements. The Western Australian case study by Dr Natalie Brown (accompanying this report) focuses on regulation of mine closure planning under State Agreements in the Pilbara. Future research on the role of State Agreements and the extent to which they can or should be used in future new projects could address questions of transparency and accountability of mine closure processes and whether the operation of Part IV of the EP Act provides a sufficient regulatory framework. Similarly, there could be questions whether new laws for mine closure planning, rehabilitation and relinquishment should apply equally to State Agreements as to other forms of mining tenure.

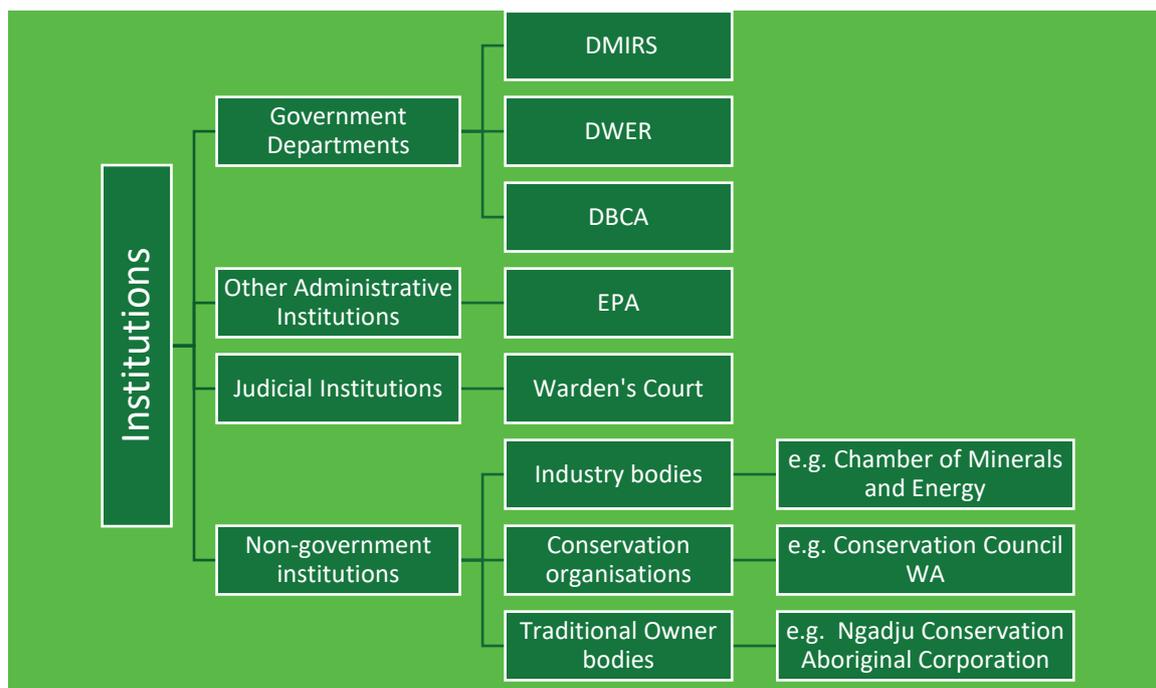
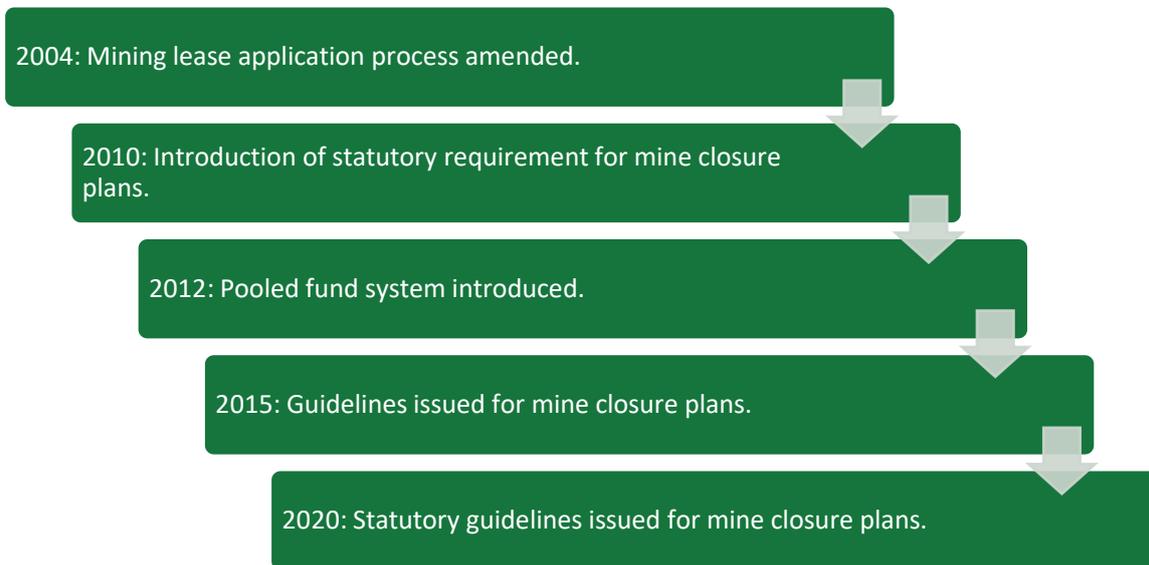


Figure 4.3 Western Australian institutions



**Figure 4.4** Western Australian principal regulatory instruments

4.2.1.3 Chronology of key reforms



**Figure 4.5** Western Australia: chronology of key reforms

### 4.2.1 Future Research Point

The potential for future research on the role of State Agreements and the extent to which they can or should be used in the future for new projects should be addressed in light of the Pilbara Agreements case study. The research planning could open with questions around the transparency and accountability of mine closure processes and whether the operation of Part IV of the EP Act (WA) provides a sufficient regulatory framework. Similarly, there could be questions whether new laws for mine closure planning, rehabilitation and relinquishment should apply equally to State Agreements as to other forms of mining tenure.

## 4.2.2 Queensland

### 4.2.2.1 Glossary

PRC Plan	Progressive rehabilitation and closure plan
MR Act	<i>Mineral Resources Act 1989</i> (Qld)
MERFP Act	<i>Mineral and Energy Resources (Financial Provisioning) Act 2018</i> (Qld)
EIS	Environmental impact statement

### 4.2.2.2 Overview

Queensland's regulatory framework was quite pre-mining and planning centred but it has been recently reformed to require more comprehensive mine closure planning. It does not require regular amendment to those plans throughout the mine life cycle, but adjustments can be made on an as-needs basis. An application for a mining licence can also be referred for an environmental approval, although Queensland does not have a separate environmental authority, such as an Environment Protection Authority.

Queensland also uses a pooled fund financial assurance system but requires a one-off payment as opposed to the annual payments required in Western Australia. Queensland's mining industry is more homogenous than Western Australia's and is centred around coal. Queensland also has many mines approaching closure, as well as a suite of significant new proposals undergoing the planning and approvals process.

Queensland, as in Western Australia and Victoria, encourages continual closure planning and progressive rehabilitation. In reality however, it is only after decommissioning begins and operations have ceased that many of the difficulties of repurposing present themselves. The Queensland case study is on the Ensham coal mine in the Bowen Basin and considers these issues. To combat some of the delays to transformation that can arise, Queensland has introduced a system of progressive certification, allowing operators to relinquish portions of their mining lease with certainty that their obligations have been met.

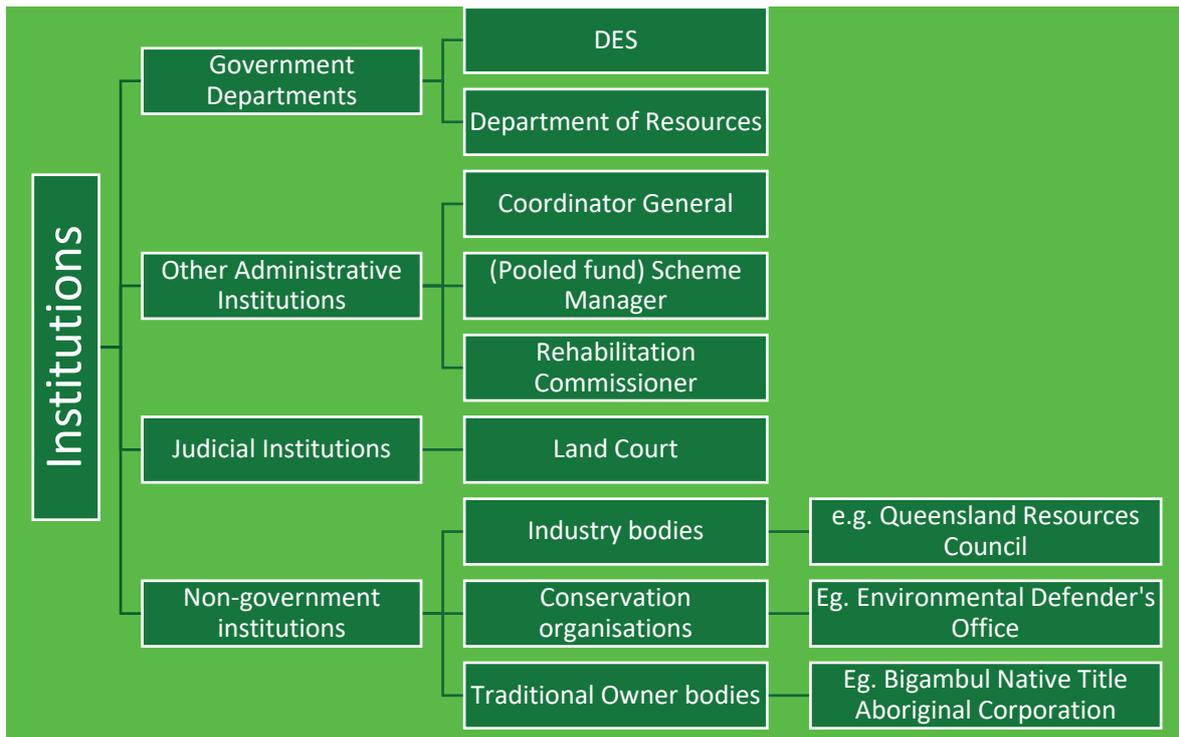


Figure 4.6 Queensland institutions

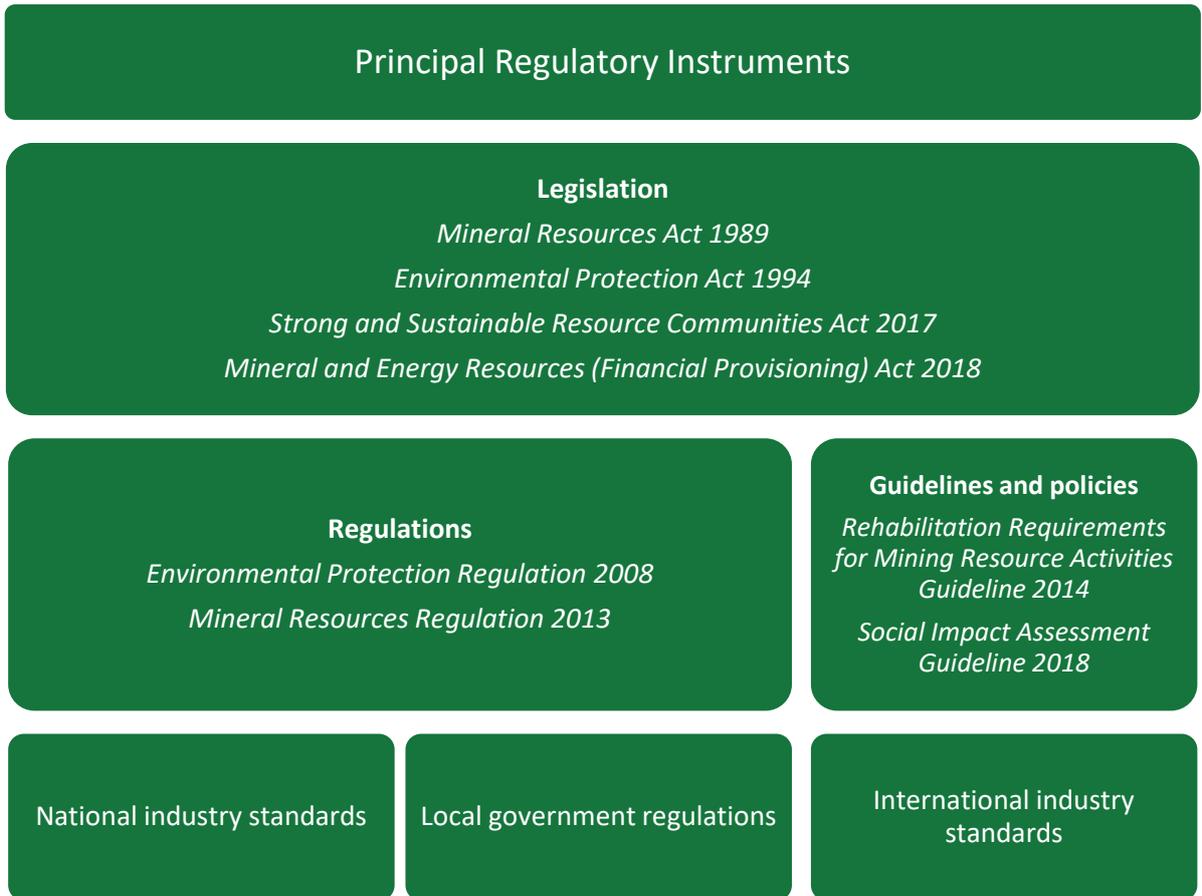


Figure 4.7 Queensland principal regulatory instruments

### 4.2.2.3 Chronology of key reforms



**Figure 4.8 Queensland: chronology of key reforms**

## 4.2.3 Victoria

### 4.2.3.1 Glossary

MRSD Act	<i>Mineral Resources (Sustainable Development) Act 1990 (Vic)</i>
EE Act	<i>Environmental Effects Act 1978 (Vic)</i>
EP Act	<i>Environmental Protection Act 2017 (Vic)</i>
PE Act	<i>Planning and Environment Act 1987 (Vic)</i>
EES	Environmental effects statement
ERR	Earth Resources Regulation

### 4.2.3.2 Overview

Victoria has some key differences to Western Australia and Queensland but it still utilises a system of mine closure planning and, akin to Western Australia, also has an environmental assessment process, during which mining proposals and work plans can be referred to the EPA. Victoria is also similar to Western Australia in that, although much smaller, its mining industry is diverse, and its regulatory framework needs to be equipped to apply to a range of forms of mining. Victoria’s largest mines are the Latrobe Valley coal mines, which are considered separately in the case study and have distinct regulatory instruments governing their closure and rehabilitation. It does not require mandated closure plan updates at regular intervals, but reviews and amendments occur as needed.

Victoria generally uses a system of bonds, usually in the form of bank guarantees, as financial assurance. However, it has created a pooled fund in addition to bonds for the Latrobe Valley mines.

Victoria’s system of surrender and relinquishment is similar to Western Australia’s, in that it depends on individual conditions and criteria being agreed between the operator and Government Department(s). This can also be done partially over time.

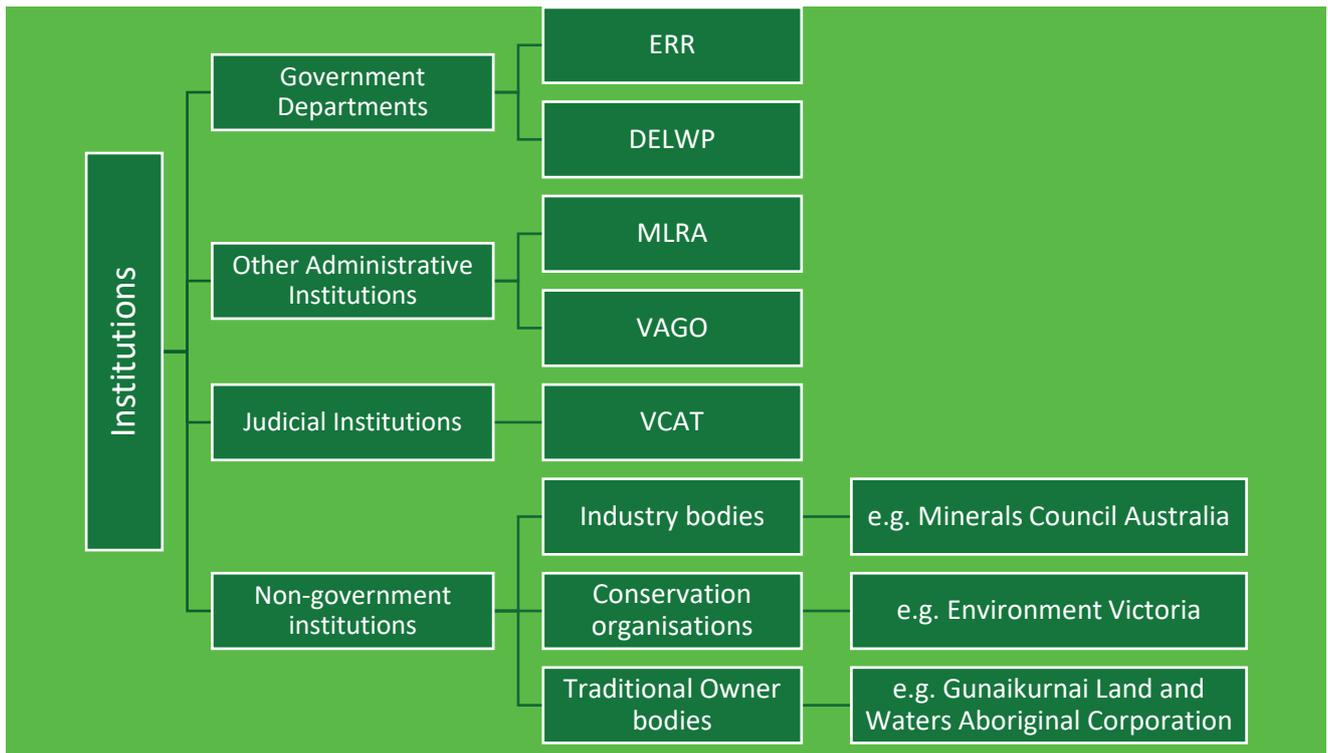


Figure 4.9 Victorian institutions

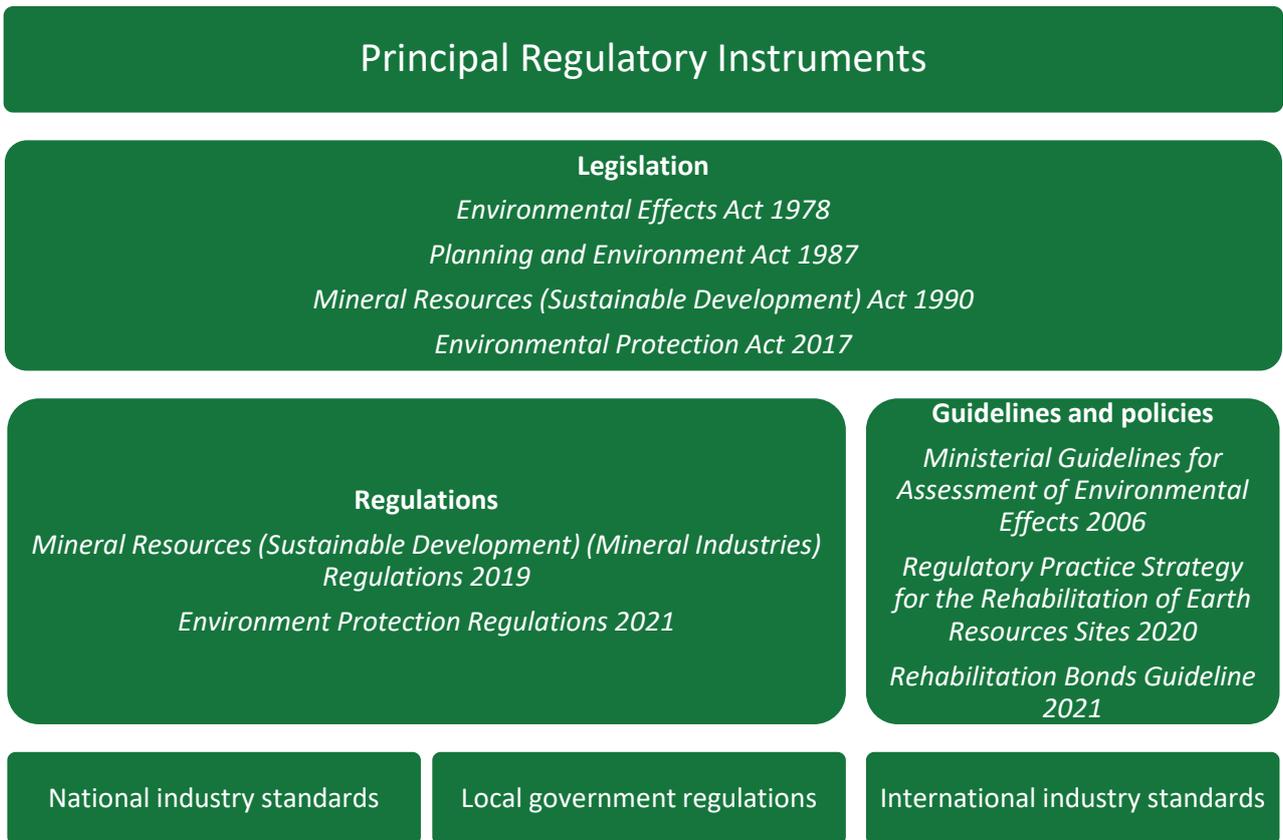
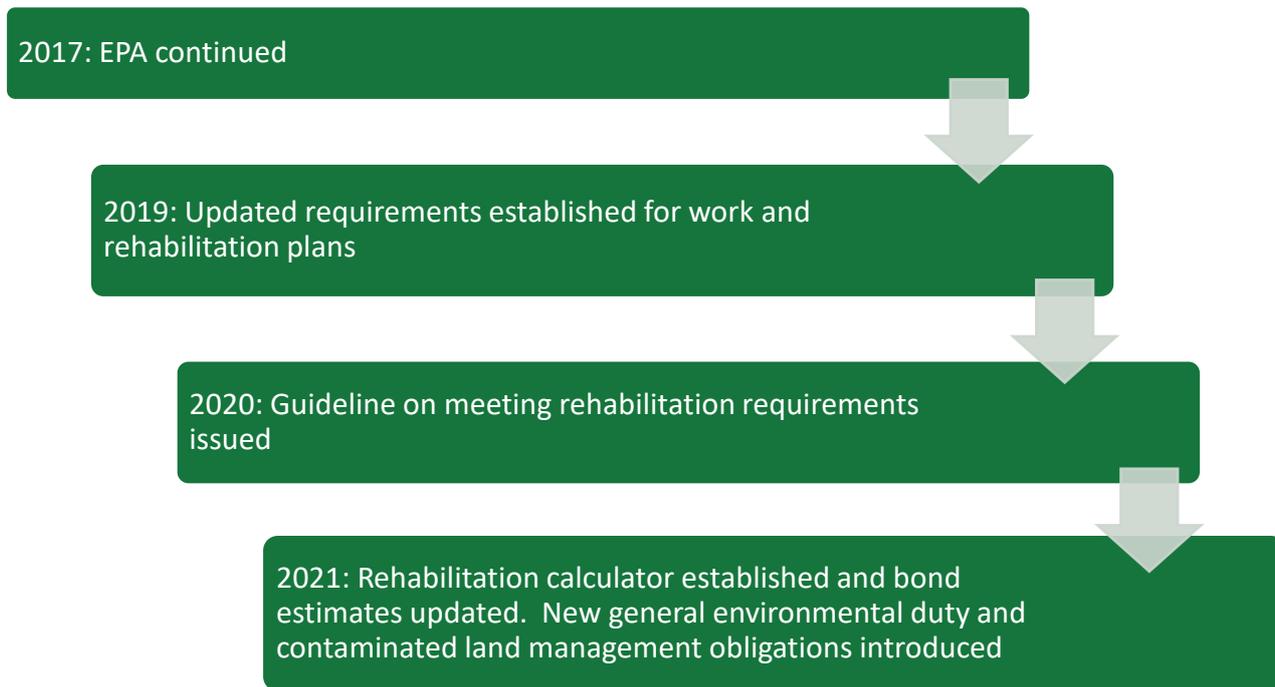


Figure 4.10 Victorian principal regulatory instruments

### 4.2.3.3 Chronology of key reforms



**Figure 4.11 Victoria: chronology of key reforms**

### 4.2.3.4 Table comparing regulatory frameworks

**Table 4.1 Comparison of three regulatory frameworks**

Jurisdiction	Victoria	Queensland	Western Australia
<b>Mines approaching closure</b>	Yes	Yes	Yes
<b>Last substantial legislative reform</b>	2020	2018	2012 (current reform underway discussed at 5.2.1.1.4)
<b>Mine closure plans required</b>	Yes	Yes	Yes
<b>Pooled fund</b>	No	Yes	Yes
<b>Mandatory closure plan updates</b>	No	No	Yes (every 3 years – subject to proposed reforms)
<b>Partial surrender</b>	Yes	Yes	Yes
<b>Post-closure fund</b>	Yes (declared mines)	Yes	No

## 5 Pre-mine operation and approval of a mining proposal, closure plan and financial security

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### 5.1 Overview

This chapter of the report considers how each jurisdiction promotes and regulates mine closure planning and rehabilitation through the minerals resource tenement application process and any other approvals processes that are required before minerals production (mining) can commence. It will do this in the following sections:

- Mine closure planning is an essential part of presenting a mining proposal and involves process and criteria for:
  - Presenting plans for approval; and
  - Endorsing a mine closure plan;
- Financial security for fulfilment of a rehabilitation and closure plan is essential;
- Community engagement rights during mine closure planning, including local government, are important and may comprise:
  - Rights to information and to comment or object;
  - Rights to comment and negotiate for Indigenous people; and
  - Acceptance of residual risk at the pre-mine operation phase.

Generally, the core elements of the approvals process are the application for the minerals resource tenement (mining lease in Queensland and Western Australia or mining license in Victoria) and a form of environmental approval. The onus falls on the applicant to gather and provide all the requisite information regarding the expected closure process, rehabilitation plans and any risks that are likely to arise. It is usually then that the relevant government body can require that an environmental assessment take place as part of the tenement application process, although Western Australia gives the proponent the option to self-refer for environmental assessment at the tenement application stage or be subject to environmental assessment triggers when later presenting a mining proposal. In three jurisdictions have different forms of environmental assessment and approval, leading to different forms of mine closure plan approval. Similarly, although in Western Australia and Queensland the mining lease may confer rights to access and use water resources on the tenement for mining operations, most proponents will also need to acquire any relevant water licences before they can commence operation.

A minerals resource tenement is usually conditional on the initial assessment and provision of financial security for performance of the tenement conditions for rehabilitation and closure. Again, the onus is on the proponent to provide the assessing body with any requested information, and the onus is then on that government assessing body to determine the appropriate quantum of financial security.

The onus is also on the proponent to conduct, and demonstrate that they have conducted, community consultation as part of their initial mine closure planning. There is usually some form of legal guidance on the appropriate avenue and process for community consultation in legislation, regulations or other subsidiary instruments, including lease conditions. However, the effect of that legal guidance in each jurisdiction differs markedly and has the potential to result in very different consultation outcomes and community responses.

After each section and at the conclusion of this pre-operation chapter, we will conduct a comparative analysis discussion to draw out some key differences between the jurisdictions.

## 5.2 Mine closure planning is an essential part of presenting a mining proposal

Over the last decade it has become a standard requirement across Australia for mineral resource tenement applicants to include a mine closure plan in their mining proposal. A key question is whether the mining proposal needs to be presented with the application for the resource tenement or by an alternative process.

### 5.2.1 Western Australia

Western Australia has two foundational pieces of legislation that regulate the making and approval of mining proposals and mine closure plans:

- The *Mining Act 1978* (WA) (Mining Act).
- The *Environmental Protection Act 1986* (WA) (EP Act).

#### 5.2.1.1 Alternative pathways to approval under the *Mining Act*

These two Acts interact to establish two alternative pathways for seeking approval, including environmental impact assessment approval, of a minerals production operation.

1. The first pathway (the traditional pathway) involves the application for a mining lease with a mining proposal<sup>295</sup> to which any person may make objections in the Warden's Court and which may be referred by any person for environmental impact assessment (EIA) under the EP Act where the proposal is likely, if implemented, to have a significant effect on the environment. If an EIA is required, it must be completed before the Minister for Minerals may grant the mining lease. The grant of the mining lease will authorise the commencement of mining operations.
2. The second pathway (the deferred proposal pathway introduced in 2004)<sup>296</sup> authorises a mining lease application without a mining proposal if the application is supported by a statement of proposed mining operations and a 'mineralisation' or 'resource' report. Only the proponent may refer such an application for environmental impact assessment.<sup>297</sup> A mining lease granted under the deferred proposal pathway is granted with a condition requiring the lessee to obtain written approval of a mining proposal from the Executive Director of the Department of Mines, Industry Regulation and Safety's (DMIRS) Resource and Environmental Compliance Division before carrying out any mining operations.<sup>298</sup> Almost all mining lease applications are made by the deferred proposal pathway.<sup>299</sup> Once a mining proposal is submitted to DMIRS for approval, it may be referred to the Environmental Protection Authority (EPA) for an environmental impact assessment (EIA) under the EP Act.<sup>300</sup>

<sup>295</sup> *Mining Act 1978* (WA) s 74(1)(ca)(i).

<sup>296</sup> *Mining Amendment Act 2004* (WA) Part 6 – amendments about mining leases, which inserted s 74(1)(ca)(ii) and (iii) and associated provisions such as s 74(1a).

<sup>297</sup> Curiously, *Mining Act 1978* (WA) s 6(1a) confines this limited right of EIA referral to where there is a statement of proposed mining operations and a 'mineralisation report'; the right of referral is not so limited where the statement of proposed mining operations is accompanied by 'resource report'. These two terms are defined in s 74(7); the former refers to a report of exploration results and the latter to a published report of the details of minerals located in or under the land. The content of a statement of proposed mining operations is defined s 74(1a).

<sup>298</sup> *Mining Act 1978* (WA) ss 82A(2); *Mining Regulations 1981* (WA) r 32A(3).

<sup>299</sup> Personal communication to Alex Gardner by DMIRS officers at a research meeting on 29 October 2021.

<sup>300</sup> *Environmental Protection Act 1986* (WA) ss 38(2).

A key point here is that a mining proposal process by either pathway must contain a mine closure plan (MCP). We analyse below (section 5.4) how these alternative pathways affect community rights to participate in decision-making about approval of mining proposals.

The Mining Act requires that a ‘mining proposal’ under the traditional pathway or the deferred proposal pathway includes, by definition, a MCP.<sup>301</sup> In turn, a ‘mine closure plan’ is defined to be a document that has the form and content required by guidelines approved and made publicly available by the Director General of Mines.<sup>302</sup> Thus, the Mining Act establishes a statutory requirement to submit a MCP with a mining proposal but relies heavily on the statutory guidelines to set the standards for a mining proposal and MCPs. It is a statutory condition of a mining lease that the lease holder must review the MCP and obtain written approval of the reviewed MCP every three years after it was approved; either in the grant of the lease or under the deferred proposal pathway.<sup>303</sup> However, the Mining Act fails to address three important legal questions about the Guidelines and the effect of an approved MCP.

First, the Mining Act does not state the legal effect of the Guidelines on the decision to approve an MCP. The content of the Statutory Guidelines for Mine Closure Plans is discussed at 5.2.1.3 below. On the basis of High Court decision in *Forrest & Forrest v Wilson*, a case which interpreted the Mining Act provisions regulating the mining lease application process, there is a duty to fulfill the statutory requirements of the application process.<sup>304</sup> Thus, an application accompanied by a mining proposal would need to include a MCP, and an application based on a statement of mining operations and a mineralisation report must include all elements at the time of application. The High Court’s reasoning for the importance of following the statutory process was to ensure that objections to the mining lease application could be properly informed by the opportunity to review the lease application information.<sup>305</sup> However, the statutory guideline prescription of the form and content of the MCP is less likely to be legally binding, though it is likely that the Minister granting a mining lease or the prescribed official approving a mining proposal would be legally bound to have due regard to the prescriptions of the guideline.<sup>306</sup>

Secondly, the Mining Act does not specify the legal effect of the approval of a mining proposal or MCP, nor separately confer any legal force on those documents. The Mining Act does provide that a lease holder in breach of any of the statutory covenants is liable to have the lease forfeited, but it is not clear that a condition requiring compliance with a mining proposal or MCP is incorporated into the mining lease; however, see 5.4.3.1 below. Thus, there is a legal duty to have an approved mining proposal and MCP, and the lease is liable for forfeiture if the MCP is not reviewed each three years, but there is no statutory legal sanction for not implementing the MCP. The legal effect of a MCP as described in the Guidelines is discussed further at 5.2.1.3.

Thirdly, the practice seems to be to include approved MCPs on the Mining Act register, Minedex,<sup>307</sup> though it is not clear what is the legislative basis for doing so.<sup>308</sup>

<sup>301</sup> *Mining Act 1978* (WA) ss 700.

<sup>302</sup> *Ibid*, ss 700 & 70P.

<sup>303</sup> *Ibid*, ss 82(1)(ga) and 84AA.

<sup>304</sup> *Forrest & Forrest Pty Ltd v Wilson* [2017] HCA 30; 262 CLR 510.

<sup>305</sup> *Ibid*, [2017] HCA 30, [88].

<sup>306</sup> M Hunt, et al. *Hunt on Mining Law of Western Australia*, Federation Press, 2015, 122.

<sup>307</sup> Mine Closure Plans are regarded as an ‘environmental approval’ under the Mining Act and may be located on DMIRS website by following the menu to ‘Environment’, ‘Environmental regulation’ and linking to ‘MINEDEX’: <<http://www.dmp.wa.gov.au/Environment/Environmental-regulation-8311.aspx>>.

<sup>308</sup> The Mining Act s 103F requires the Director General of Mines to compile and maintain a register, containing prescribed particulars relating to mining tenements. *Mining Regulations 1981* (WA), reg 84C prescribes that content in relation to mining tenements, specifying (viii) applications relating of the tenement and the outcome of those applications, and (x) any additional conditions imposed in relation to the tenement after it is granted. It is not clear that an MCP is an application and it will only be

The legal effect of the MCP itself is a separate question addressed below in 5.2.1.3.

## Case Spotlight

### Forrest & Forrest Pty Ltd v Wilson (2017) 262 CLR 510

- In this case, Yarri Mining Pty Ltd and Onslow Resources Ltd applied to have their mineral exploration license converted into mining leases.
- They did not provide a mining proposal and only provided a mineralisation report four months after applying for a mining lease.
- The Warden subsequently recommended the leases be granted, which the Minister did.
- The High Court found that the letter of the law was to be followed strictly.
  - Either a mining proposal must be lodged within 14 days of the application for a mining lease, or a mineralisation or resource report must be provided at the time of application.
  - Non-compliance invalidated the mining lease, even if already granted.
- The Court’s decision continues to cast doubt on other leases granted during a more relaxed period of tenement administration, as was the status quo prior to this decision.

### 5.2.1.2 The Role of Environmental Impact Assessment

The Mining Act mining lease process interacts with the EP Act process for EIA, which has some importantly distinctive definitions. The EP Act defines ‘proposal’ broadly, including as a “project, undertaking or development”, and defines a ‘significant proposal’ as one likely, if implemented, to have a significant environmental impact.<sup>309</sup> A ‘mining proposal’, as defined in the Mining Act will often come within the EP Act definition of a ‘significant proposal’, which makes it eligible for any person to refer to the EPA to determine whether an EIA is required.<sup>310</sup> A mining proposal presented under either the traditional or deferred pathway can be referred to the EPA for assessment, but only the mining lease applicant can refer a mining lease application made under the deferred proposal pathway at the time of the lease application.<sup>311</sup> The EPA decides whether an EIA is needed and sets the requirements of the EIA process for each proposal in accordance with its statutory powers, administrative procedures and guidelines.<sup>312</sup> This is a five-stage process as follows:

- Stage one is when a mining application is referred to the EPA. If a mining proposal is referred to the EPA or the EPA issues a notice that it will assess a mining proposal, the mining lease application (with proposal) or the proposal submitted cannot be approved until it has been assessed by the EPA and approved by the Minister for Environment.<sup>313</sup>
- Stage two involves the EPA determination of whether or not to assess a referred Application Document.<sup>314</sup>

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an additional condition if a condition requiring compliance with the MCP is added to the lease conditions. A search of the Regulations for ‘mine closure plan’ gave no result.

<sup>309</sup> *Environmental Protection Act 1986* (WA) ss 37B & 38.

<sup>310</sup> *Ibid*, ss 38.

<sup>311</sup> *Mining Act 1978* (WA) s 6(1)(a) – (1)(d).

<sup>312</sup> *Environmental Protection Act 1986* (WA) ss 38A & 40. And see the website of the EPA, “Step-by-step through the proposal assessment process”.

<sup>313</sup> Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual, Environmental Protection Authority (2020) 5.

<sup>314</sup> *Ibid*, 8.

- Stage three, if the EPA has decided to assess a proposal, involves conducting that assessment.<sup>315</sup> This involves the preparation of the assessment scope and criteria, before a proponent can be required to undertake an environmental review and produce requested information to the EPA.<sup>316</sup>
- Stage four is the EPA’s preparation of a report and recommendations for the Minister for Environment.<sup>317</sup> The EPA will consider the assessment information and its adequacy and recommend whether or not the proposal may be implemented and, if so, the conditions and procedures to which that implementation should be subject.<sup>318</sup>
- Stage five is the implementation agreement stage.<sup>319</sup> It requires the Minister for Environment to consider the EPA’s report, consult other decision-making authorities (such as the Minister for Minerals) and determine whether the mining proposal should be approved and if any conditions should be imposed on it.<sup>320</sup>

The general constitution and functions of the EPA are described at 3.5.2 of this Report. In order to make an assessment of a mining lease application, the EPA applies environmental principles set out in the EP Act.<sup>321</sup> These principles, outlined at 2.3.1 of this Report, are aimed at providing direction for the EPA in meeting the objectives of the EPA; namely, using its best endeavours to protect the environment and prevent, control and abate pollution and environmental harm.<sup>322</sup>

Recent amendments of the EP Act<sup>323</sup> have made numerous changes to the provisions of Part IV, Environmental Impact Assessment. The amendments do not substantially amend the essential EIA process but have introduced the requirement to consider the cumulative impacts of a proposal on the environment as part of the EIA.<sup>324</sup> The Act does not define ‘cumulative impacts’ but the recently amended Procedures Manual does give a definition and explains how such impacts are to be considered.<sup>325</sup> The Amendment Act also removed the option for proponents to request that the mining proposal not be kept on public record.<sup>326</sup>

A unique feature of the Western Australian regulatory landscape is the use of State Agreements.<sup>327</sup> State Agreements are legal agreements between companies and the State Government, authorised by Acts of Parliament and are used predominantly to facilitate large resources projects.<sup>328</sup> They are individually negotiated and the tailored terms can allow companies exemption from several other regulatory requirements.<sup>329</sup> Their use is declining, only 16 State Agreements have been passed in the last decade,

<sup>315</sup> Ibid, 16.

<sup>316</sup> Ibid, 21.

<sup>317</sup> Ibid, 33.

<sup>318</sup> Ibid, 26.

<sup>319</sup> Ibid, 40.

<sup>320</sup> Ibid.

<sup>321</sup> *Environmental Protection Act 1986* (WA) s 4A and Statement of Environmental Principles, Factors and Objectives, *Environmental Protection Authority* (2020) 3.

<sup>322</sup> *Environmental Protection Act 1986* (WA) s 15.

<sup>323</sup> *Environmental Protection Amendment Act 2020* (WA) s 4 inserts sub-section (1B) into s 3 of the principal Act pertaining to cumulative effects and s 15 ff inserting new provisions into Part IV. Not all of the amending provisions have commenced operation: March 2022.

<sup>324</sup> *Environmental Protection Act 1986* (WA) s 3(1B).

<sup>325</sup> Environmental Protection Authority of Western Australia, “Environmental Impact Assessment Procedures Manual, October 2021, p.66, definition of “cumulative environmental impacts”

<sup>326</sup> *Environmental Protection Amendment Act 2020* (WA) to amend s 26 of the principal Act pertaining to public inspection.

<sup>327</sup> Western Australian Government, *State Agreements*, Department of Jobs, Tourism, Science and Innovation (16 November 2020) <<https://www.wa.gov.au/organisation/departments-of-jobs-tourism-science-and-innovation/StateState-agreements>>.

<sup>328</sup> Ibid.

<sup>329</sup> Ibid.

however many existing projects are still conducted under a State Agreement.<sup>330</sup> The use of individual agreements allows for a more tailored set of requirements, such as the construction of infrastructure and closure requirements that deal with unique features of the affected region.<sup>331</sup> However, it has also been highlighted in modern political discourse that allowing for individual agreements can be anti-competitive.<sup>332</sup> The significant legal point about State Agreements is that the mining leases are granted ‘as of right’ after a mining proposal under the State agreement is approved, but the process of approving the proposal and granting a mining lease is removed from the Mining Act. The EP Act requirements of EIA are still applicable.<sup>333</sup> A detailed discussion of the operation of the EP Act in relation to State Agreement mines in the Pilbara region is given in the case study by Dr Natalie Brown that accompanies this Report. It is not possible to summarise all of the outcomes of that case study here but it is important to note that the common provision in EIA approval conditions requiring mine closure planning is for the proponent to undertake mine closure planning in accordance with the Statutory Guidelines for Mine Closure Planning adopted under the Mining Act.

### 5.2.1.3 Statutory Guidelines for Mine Closure Plans

The most recent Statutory Guidelines for Mine Closure Plans came into operation in March 2020 (the Guidelines).<sup>334</sup> They were produced collaboratively by DMIRS and the EPA and apply to both the mining lease and the environmental approval processes.<sup>335</sup> The Guidelines set out distinct requirements for small mining operations and for other (large) mine closure plans.<sup>336</sup>

Small mining operations are defined as:

- Mining not for uranium, mineral sands or rare earth elements; and
- Mining activities limited to scraping, detecting, dry blowing; or
- Mining excavations, leaching and tailing treatment operations or construction with a total footprint of 10 hectares or less.<sup>337</sup>

The Guideline suggests a set of standard conditions to be incorporated into the mining lease conditions on approval of the MCP for small mining operations, including that rehabilitation be “in a progressive manner where practicable” to ensure that the landforms are “safe, stable, non-polluting, integrated with the surrounding landscape and support self-sustaining, functional ecosystems or alternative agreed outcomes ...”<sup>338</sup>

For other (large) mining operations, the Guidelines are brief and set out the structure and content requirements of closure plans but do not establish closure standards; there is not even a suggestion that rehabilitation be progressive.<sup>339</sup> The closure plan must set out:

<sup>330</sup> Western Australian Government, *List of State Agreements in Western Australia*, Department of Jobs, Tourism, Science and Innovation (16 November 2020) <<https://www.wa.gov.au/government/publications/list-of-state-agreements-western-australia>>.

<sup>331</sup> Allens, *A decade of State Agreements in Western Australia: trends and predictions* (13 August 2020) <<https://www.allens.com.au/insights-news/insights/hubs/forging-ahead-legal-update-on-the-wa-mining-construction/a-decade-of-state-agreements-in-western-australia-trends/>>.

<sup>332</sup> *Ibid.*

<sup>333</sup> *Environmental Protection Act 1986* (WA) s 5.

<sup>334</sup> *Statutory Guidelines For Mine Closure Plans* (WA) (2020).

<sup>335</sup> *Prepare a Mine Closure Plan*, Department of Mines, Industry Regulation and Safety <<https://www.dmp.wa.gov.au/Environment/Mine-Closure-Plan-6034.aspx>>.

<sup>336</sup> *Statutory Guidelines For Mine Closure Plans* (WA) (2020) 6.

<sup>337</sup> *Ibid.*, 7.

<sup>338</sup> *Ibid.*, 10.

<sup>339</sup> *Statutory Guidelines For Mine Closure Plans* (WA) (2020).

- “all legal obligations for rehabilitation and closure that will affect the post-mining land use and closure outcomes”;
- the post-mining land uses and an environmental risk closure assessment; and
- the completion criteria and closure analysis that will be used to determine whether rehabilitation and closure are successfully completed.<sup>340</sup>

There is much doubt about the legal effect of the content of the MCP. The provision in the Statutory Guideline that the MCP “must detail all legal obligations for rehabilitation and closure” cannot give legal effect to the MCP content unless the MCP purports to be some form of contract entered into with the Department. The closure plan must be approved by the Executive Director, Resource and Environmental Compliance, DMIRS, and it will be the plan presented by the lessee that sets the criteria for assessment of the mine closure except where the plan is amended or additional conditions are set by DMIRS or through the EIA process.<sup>341</sup> DMIRS also has an Environmental Objectives Policy that provides overarching objectives for mine closure and, although these are aspirational as opposed to enforceable, the influence of soft law norms is particularly effective for larger operations who look to such policies for guidance.<sup>342</sup>

#### 5.2.1.4 Legislative amendments

The *Mining Amendment Bill 2021* (WA) (the Bill) was tabled in the Legislative Assembly on 20 October 2021 and is expected to pass parliament early in 2022. It proposes amendments to the Mining Act aimed at improving the efficiency of approvals processes. It will remove the requirement for approval of a programme of work or mining proposal for low-impact activities or low-impact changes to existing mining proposals.<sup>343</sup> Low-impact activity is not yet clearly defined. The Bill will also amalgamate mining proposals and MCPs into one document, a “mine development and closure proposal”, akin to Victoria’s approach to mine planning.<sup>344</sup> Whilst these proposals will be updated throughout the life of the mine, there will no longer be a requirement to update them every 3 years.

The first draft of the Bill was made available for public comment and revised before tabling in Parliament.

The Chamber of Minerals and Energy (CME) submitted that, whilst they support simplification of regulation as an objective, they did not believe that the Bill in its then current form was sufficiently ambitious and as a result would not achieve that objective.<sup>345</sup> CME recommended wider consultation to remove duplication with other legislation and a broadening of the reforms to create more immediate streamlining and support economic growth.<sup>346</sup>

The EPA also provided submissions in general support of the objectives of the Bill.<sup>347</sup> Their submission is brief but stresses the importance of the EP Act taking precedence over the Mining Act such that environmental principles are superior to economic objectives.<sup>348</sup> They also stress the importance of environmental criteria being an element used to define ‘low impact activity’.<sup>349</sup>

<sup>340</sup> Ibid, 5.

<sup>341</sup> *Mining Act 1978* (WA) ss 700; *Environmental Protection Act 1986* (WA) ss 38A & 40.

<sup>342</sup> *Environmental Objectives Policy for Mining (2020)* (WA)

<sup>343</sup> *Mining Amendment Bill 2021* (WA) pt 4AA.

<sup>344</sup> Ibid, s 103AN.

<sup>345</sup> B Bell and K Sorensen, ‘CME Submission to the Department of Mines, Industry Regulation and Safety’ (June 2021) 1.

<sup>346</sup> Ibid, 7.

<sup>347</sup> M Tonts, ‘EPA Submission to the Department of Mines, Industry Regulation and Safety’ (June 2021) 1.

<sup>348</sup> Ibid, 2.

<sup>349</sup> Ibid.

### 5.2.1 Future Research Point

A future research question could be to review the content and effect of the Mining Amendment Bill 2021 (WA), especially what the reforms say about the making and legal effect of a “mine development and closure proposal”.

## Western Australian water law

### Water Services Act 2012 (WA) (WS Act)

### Rights in Water and Irrigation Act 1914 (WA) (RiWI Act)

### Country Area Water Supply Act 1947 (WA) (CAWS Act)

### Water Services Regulations 2013 (WA) (WS Regulations)

### Western Australian Water in Mining Guideline 2013 (Guideline)

- Many mining operations require a supply of water and mine dewatering is important for accessing mineral resources below the water table. Watercourses and depleted aquifers are challenging to rehabilitate in the event of damage or contamination.
- Western Australia has a patchwork of water law – the WS Act was enacted in 2012 to simplify the previous antiquated regulatory framework addressing water services. Water resources law reform has been more difficult to achieve in Western Australia.
- A mining lease authorises the taking and use of water for mining operations within the area of the lease. However, any mining operation that will extract surface or ground water in proclaimed water management areas will need authorisations under the RiWI Act (including such operations under a State Agreement). Taking water from an artesian well always requires authorisation.
- There are three types of licenses and permits set out in the RiWI Act relevant to mining:
  - A license to construct and/or alter a well (s 26D) in a proclaimed or prescribed management area. This is usually necessary as a means to take water for both water supply and use, as well as mine dewatering.
  - A permit to interfere with watercourse beds and banks (ss 11, 17 and 21A).
  - A license to take and use water on identified land tenure (s 5C).
    - A proponent may also need to apply for a permit under the CAWS Act to clear native vegetation near water as necessary. The CAWS Act sets out designated controlled catchment areas, for which further licenses and permits are required.
- The process for approval requires a preliminary consultation, scoping of the water management task, a water license application and EPA assessment, and development of an operating strategy before the final license decision. After the license is awarded, the proponent is expected to undertake continual closure planning and conduct ongoing monitoring and reporting relevant to closure commitments (Guideline fig. 1).
- The Water in Mining Guideline and RiWI Act are subject to the EP Act and any license or permit granted under the RiWI Act is subject to any EIA approval conditions. DWER can also impose conditions on a water license or permit to aid in meeting those objectives. A license or permit application may be separately referred to the EPA for an EIA.
- A proponent must provide DWER with any requested hydrogeological assessment documents. DWER accepts submissions or complaints both during the license and permit application process and after grant.
  - When assessing a preliminary proposal, DWER will consider the cumulative impacts on water within each catchment area.

## 5.2.2 Queensland

The Queensland regulatory system for mining rests on two core legislative pillars:

- The *Mineral Resources Act 1989* (Qld) (MR Act); and
- The *Environmental Protection Act 1994* (Qld) (EP Act).

### 5.2.2.1 This legislation also interacts with the *Water Act 2000* (Qld)

The interaction of these three statutory regimes is helpfully described in *Oakey Coal Action Alliance Inc v New Acland Coal Pty Ltd* [2019] QCA 184. A further relevant statute is *Strong and Sustainable Resource Communities Act 2017* (Qld), which provides for social impact asses.2.2.1. The MR Act mainly regulates resource tenure & infrastructure

The MR Act establishes most of the procedural aspects of acquiring mining tenure, including the process of application for a mining lease and the relevant considerations when determining whether or not to grant the application.<sup>350</sup> The holder(s) of an existing prospecting permit, exploration permit for coal or a mineral development license, or a person with the consent of the permit or license holder, may apply for a mining lease in respect of any area within their exploration tenements.<sup>351</sup>

An application for a mining lease must be accompanied by a Statement outlining the mining program (including the method of operation and expected start time) or outlining the alternative proposed use of the lease area (such as infrastructure).<sup>352</sup> The application should state the resources (human, technical and financial) proposed to be committed to the mining operations and give details of the applicants financial and technical resources.<sup>353</sup> There is no express provision in the MR Act for the mining program to include a mine closure plan, as recent reforms discussed below have incorporated this requirement into the application for an environmental authority under the EP Act.<sup>354</sup> If objections are made to the mining lease application or to a related environmental authority application, the Chief Executive of the Department of Resources (DoR) must refer the application and all objections notices, including those to the environmental authority application, to the Land Court for hearing and recommendations to the Minister.<sup>355</sup> In making those recommendations, the Land Court considers a broad range of factors that relate to the clear definition of the mining tenure and the financial and technical capacity of the applicant to conduct the proposed operations. The Land Court is also required to consider some factors that appear relevant to mine closure and post-mine land use: namely, whether:<sup>356</sup>

- the operations will conform with sound land use management;
- there will be any adverse environmental impacts caused by those operations and the extent thereof;
- “the public right and interest will be prejudiced”; and
- “taking into consideration the current and prospective uses of that land, the proposed mining operation is an appropriate use of land”.

We have not had the opportunity to research how Land Court reasons and recommendations may have reflected on these criteria, so this question would be an interesting issue for further research. Some of those research directions may be found in the brief paper by Peta Stilgoe OAM, Member of the Land Court of

<sup>350</sup> *Mineral Resources Act 1989* (Qld) ch 6.

<sup>351</sup> *Ibid*, s 232.

<sup>352</sup> *Ibid*, s 245(1)(n).

<sup>353</sup> *Ibid*, s 245(1)(n) & (o).

<sup>354</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) amended the EP Act.

<sup>355</sup> *Mineral Resources Act 1989* (Qld) s 265.

<sup>356</sup> *Ibid*, ss 269(4)(i), (j), (k) and (m).

Queensland<sup>357</sup> and the reasons and recommendations Member Stilgoe gave in *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc (No 2)* [2021] QLC 44 (17 December 2021).

The MR Act also sets out relinquishment requirements, which need to be considered when undertaking mine closure planning. These are discussed in more detail at 6.4.2. It suffices to explain here that part of the MR Act closure requirements includes an onus on the mine lease holder either to remove all mineral and property from the area or to provide security to cover the cost of the State selling or destroying the remaining property.<sup>358</sup>

### 5.2.2 Future Research Point

A future research question could be to review what the Land Court decisions have said about factors that the Land Court is required to consider in relation to mine closure and post-mine land use.

#### 5.2.2.2 The EP Act mainly regulates rehabilitation of the land and environment

The EP Act sets the environmental standards for any ‘environmentally relevant activity’ undertaken in Queensland, defined as including any activity that involves a ‘mining activity’.<sup>359</sup> It is an offence to carry out an environmentally relevant activity without holding or acting under an ‘environmental authority’ (EA).<sup>360</sup> Only the person who is an applicant for the relevant tenure for a mining activity may apply for an EA in respect of that mining activity.<sup>361</sup> An EA application for a large mining activity will be a ‘site specific application’ rather than a ‘standard application’ for which standard conditions are applicable.<sup>362</sup> The applicant for a site specific environmental authority for a mining activity on a mining lease is also required to plan for how and where the environmentally relevant activities will be carried out in a way that maximises ‘the progressive rehabilitation of the land to a stable condition’ and to provide in that plan for the condition to which the holder must rehabilitate the land before the authority may be surrendered.<sup>363</sup> This becomes the ‘progressive rehabilitation and closure plan’ or PRC Plan.

The requirements for a PRC Plan were introduced by amendments to the EP Act by the *Mineral and Energy Resources (Financial Provisioning) Act 2018* (MERFP Act), which also established new financial security provisions (discussed below at 5.3.2). The key point here is that mine closure planning has been integrated into the EA under the EP Act Chapter 5 administered by the DES. The EA and PCR Plan process is separate from, though integrated with, the administration of the resource tenure. We briefly outline both procedures here before noting the process of social impact assessment and the interaction with the water resources legislation.

#### The EA Application Process

The EP Act broadly divides the EA application process into four stages:

<sup>357</sup> “Digging Deep: dealing with social aspects of environmental harm & public interest issues of mining in Queensland”, (undated) available on the website of the Queensland Land Court giving the biographical details of Member Stilgoe.

<sup>358</sup> *Mineral Resources Act 1989* (Qld) ss 313 and 314.

<sup>359</sup> *Environmental Protection Act 1994* (Qld) ss 18, 107 (defining ‘resource activity’) and 110 (defining ‘mining activity’).

<sup>360</sup> *Ibid*, s 426. This does not apply to a ‘small scale mining activity’.

<sup>361</sup> *Ibid*, s 117.

<sup>362</sup> *Ibid*, ss 112, 122, and 124. See also Queensland Government, Business Queensland, Applying for an environmental authority, Activities suitable for standard applications. <<https://www.business.qld.gov.au/running-business/environment/licences-permits/applying/activities-suitable>>.

<sup>363</sup> *Environmental Protection Act 1994* (Qld) ss 125(1)(n) and 126B, main purpose of PRC Plan, and definition in s 112. The Queensland Department of Environment and Science has produced a very useful “Guideline: Progressive Rehabilitation and Closure Plans”, version 2, 17 March 2021. The EA application for a mining lease activity is “site specific” because there are no applicable standard criteria: see s 112 definition of “ineligible ERA” and 124 definition of “site-specific application”. See also *Oakey Coal Action Alliance Inc v New Acland Coal Pty Ltd* [2019] QCA 184 at [108].

1. The application stage: DES checks that the application is properly made;
2. The information stage: DES may require additional information from applicant, including by the preparation of an environmental impact statement;
3. The notification stage: the EA, PRC Plan and resource tenure application are publicly notified together and members of the public may make submissions to the administering authority; and
4. The decision stage: DES issues a decision notice on the EA application and PRC Plan to the applicant and submitters, each of whom may (effectively) request the administering authority to refer the application to the Land Court, which in turn issues an objections decision to the resources and development ministers, who provide advice to the DES, which then makes the final decision on the EA and PRC Plan and uploads them to the public register.<sup>364</sup> (The Land Court process is discussed more at 5.4.1.2.)

The EP Act Chapter 3 also establishes a comprehensive process for Environmental Impact Statements (EIS). PRC plans may be incorporated as part of or accompany an EIS before an EA application is made,<sup>365</sup> in which case the information stage of the EA application will not apply unless there are proposed changes to the PRC Plan considered in the EIS process.<sup>366</sup> However, if an EIS has not been undertaken before, the administering authority may require an EIS as part of the information stage of a site-specific EA application for a mining activity.<sup>367</sup> The EIS process is aimed at assessing both the adverse and beneficial social, economic and environmental impacts of a project as well as how to mitigate adverse impacts and propose an environmental management plan.<sup>368</sup> The EP Act sets out a detailed process for EIS approval, with six key steps to be taken by the proponent and chief executive of the DES:

- Drafting terms of reference for the EIS;<sup>369</sup>
- Providing public notice of the draft terms;<sup>370</sup>
- Preparing final terms of reference for the EIS;<sup>371</sup>
- Preparing the EIS for public notification;<sup>372</sup>
- Providing public notice of the EIS, an opportunity for any person to make a submission to the chief executive of the DES, and for the proponent to respond; and<sup>373</sup>
- The chief executive prepares the EIS assessment report.<sup>374</sup>

The process is considered complete when the proponent is given an EIS assessment report.<sup>375</sup>

<sup>364</sup> *Environmental Protection Act 1994* (Qld) ss 114A & ch 5 pts 2, 3, 4 & 5. See also 'Guideline: Progressive Rehabilitation and Closure Plans' Figure 1 of process at p 7 and the DES administered searchable 'public register' maintained under s 540 of the Act, which includes a PRC Plan, which by definition in the Schedule 4 Dictionary includes the PRC plan schedule for that plan, including any conditions imposed on the schedule: <<https://apps.des.qld.gov.au/public-register/>>.

<sup>365</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) s 96A.

<sup>366</sup> *Environmental Protections Act 1994* (Qld) s 139.

<sup>367</sup> *Ibid*, ss 37 and 143.

<sup>368</sup> *Ibid*, s 40.

<sup>369</sup> *Ibid*, s 41.

<sup>370</sup> *Ibid*, s 43.

<sup>371</sup> *Ibid*, s 46.

<sup>372</sup> *Ibid*, ss 47-50.

<sup>373</sup> *Ibid*, ss 51-56.

<sup>374</sup> *Ibid*, s 57, 58 & 59.

<sup>375</sup> *Ibid*, s 60.

### The PRC Plan Process

As explained above, the main purposes of a PRC Plan are to require the EA holder to set out how and where environmentally relevant activities will be carried out to maximise progressive rehabilitation and to provide in the plan the condition to which the EA holder must rehabilitate the land before the EA can be surrendered.<sup>376</sup> The EP Act prescribes in detail the form and content of the PRC Plan for achieving these purposes,<sup>377</sup> including

- a. the nature and likely duration of the relevant mining activities, plus the methods and milestones for rehabilitation,
- b. a proposed PRC Plan Schedule defining how and where the activities will be carried out and what will be the 'post-mine land uses' (PMLUs) or 'non-use management areas' (NUMAs) to result from the rehabilitation plan, and
- c. explain how each PMLU or NUMA is consistent with the outcome of consultation with the community and any governmental land use strategies or plans, and give reasons for why a NUMA cannot be rehabilitated to a stable condition.

The PRC Plan Schedule may propose a NUMA only if rehabilitating the land would cause a greater risk of environmental harm than not rehabilitating it, the risk of non-rehabilitation is confined to that area of the resource tenure and, it is in the public interest not to rehabilitate that land to a stable condition.<sup>378</sup> A specific statutory limit on proposing a NUMA is that a void situated wholly or partly in a flood plain must be rehabilitated to a stable condition.<sup>379</sup> If a PRC Plan Schedule proposes a NUMA at the end of the application stage, the administering authority must ask a qualified entity to carry out and report to the administering authority on a public interest evaluation of it.<sup>380</sup> It is important to note that PRC plans do not expressly deal with or account for residual risk; however, non-use management areas can be areas that present a residual risk, which is discussed in chapter 6.

The criteria to be considered by the DES when deciding to approve a PRC plan are provided in amendments to the *Environmental Protection Regulation 2019* (Qld) (EP Regulation), which came into operation at the same time as the MERFP Act amendments of the EP Act came into operation.<sup>381</sup> The administering authority must, in deciding to approve the PRC Plan Schedule, carry out an objective assessment and may only approve the Schedule if each PRC Plan objective can be achieved through the Schedule. For example, the administering authority must consider whether each post-mining land use:

- is viable, having regard to the use of land in the surrounding region and –the use is consistent with one of the following:
  - the land use before the mining activity;
  - a development approval relating to land;
  - a planning instrument; or
  - aimed at delivering a beneficial environmental outcome, and

<sup>376</sup> *Environmental Protections Act 1994* (Qld) s 126B.

<sup>377</sup> *Ibid*, ss 126C and 126D.

<sup>378</sup> *Ibid*, s 126D(2).

<sup>379</sup> *Ibid*, s 126D(3). The operation of this provision in the transition to the new statutory standards is considered in the Ensham Case Study accompanying this Report.

<sup>380</sup> *Ibid*, ss 136A, 316PA and 316PB. The report may also be subject to review under s.316PC.

<sup>381</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld); *Environmental Protection (Rehabilitation Reform) Amendment Regulation 2019* (Qld) inserting the following key amendments into the *Environmental Protection Regulation 2019* (Qld) sections 41A-41C, 184, 187A-187B, 213, and Sch 8A, PRCP objective assessment.

- each NUMA is minimised and located to prevent or minimise environmental harm.

There are also criteria for assessing progressive rehabilitation of PMLUs or improvement of NUMAs. In summary, the comprehensive detail of regulatory guidance is remarkable, including in the way it links the regulation of rehabilitation under the EA to approved land use.

The MERFP Act amendments to the EP Act also provided transitional provisions for existing EA holders and EA applications for mining activities.<sup>382</sup> There is not the opportunity to consider the operation of those provisions here but they are considered in detail in the Ensham Case Study accompanying this report.

### 5.2.2.3 Social Impact Assessment

There is a further requirement under the *Strong and Sustainable Resource Communities Act 2017* (Qld) (SSRC Act) for any resource project which requires an environmental impact assessment to also conduct, and make publicly available, a social impact assessment.<sup>383</sup> The operation of this legislation seems mostly relevant to the State significant mining projects that come within the jurisdiction of the Coordinator General under the *State Development and Public Works Organisation Act 1971* (Qld). The Coordinator General operates independently of, but alongside, the DES and the DOR to conduct a preliminary assessment of significant projects.<sup>384</sup> The office of Coordinator General was established in 1938 and the Coordinator General's department has been expanding since; today it is a lynchpin of Queensland's infrastructure regulation framework, with the majority of the projects approved being part of the minerals and resources sector.<sup>385</sup> Any project that requires an environmental or social impact assessment must be approved by the Coordinator General.<sup>386</sup>

The Social Impact Assessment Guideline sets out the relevant considerations when assessing the issues that affect the local people and communities in proximity to a proposed project, including:

- Impacts on culture, history and ability to access cultural resources;
- Impacts on communities' physical safety, exposure to hazards or risks, and access to and control over resources;
- Impacts on communities' quality of life including liveability and aesthetics, as well as the condition of their environment (for example, air quality, noise levels, and access to water); and
- Changes to livelihoods, for example, whether people's jobs, properties or businesses are affected, or whether they experience advantage/disadvantage.<sup>387</sup>

The above impacts are those most likely to be relevant to closure planning and the ability of applicants to demonstrate management and mitigation measures for any social impacts identified can have a bearing on the Coordinator General's decision to grant project approval. Each proposed mitigation measure must also identify any residual impacts and how these might be addressed.<sup>388</sup>

<sup>382</sup> *Environmental Protection Act 1994* (Qld) ss 750-755 ff.

<sup>383</sup> *Strong and Sustainable Resource Communities Act 2017* (Qld) ss 9.

<sup>384</sup> Queensland Government, Assessments and approvals, State Development, Infrastructure, Local Government and Planning (30 November 2020) <<https://www.StateStatedevelopment.qld.gov.au/coordinator-general/assessments-and-approvals>>.

<sup>385</sup> *Ibid.*

<sup>386</sup> *Ibid.*

<sup>387</sup> *Social Impact Assessment Guideline 2018* (Qld) p 8.

<sup>388</sup> *Ibid.*, p 9.

## Queensland water law

### Water Act 2000 (Qld) (Water Act)

### Water Regulation 2016 (Qld) (Regulation)

### Water Act 2007 (Cth) (Commonwealth Water Act)

- The MR Act confers on mining lease holders ‘underground water rights’ to take or interfere with underground water in the area of their mining lease associated with carrying out an activity authorised by the lease (s 1250C Water Act) – ‘associated water rights’.
  - The underground water rights include dewatering, which may be used to supply operations, so the lease holder may not need to apply for a separate water license.
  - As a transitional measure, mining tenement holders who applied for an environmental authority before 6 December 2016 still had to apply for an associated water license if the application area is an underground water management area (s 1250D Water Act).
  - Objections to underground water impacts may now be presented in the Land Court: *Oakey Coal Action Alliance Inc v New Acland Coal Pty Ltd* [2019] QCA 184 at [114].
- A mining tenement holder can take water outside their mining lease by acquiring a water license or water permit. Water licenses are more common for mining tenements.
  - A lessee can apply for a water license (s 107 Water Act) in order to have rights to use of water across a designated area or place (s 106 Water Act).
  - A lessee can apply for a water permit (s 137 Water Act) to access water resources in relation to a particular activity, for a limited quantity of water over a short term.
- Water licences and permits are issued in accordance with regional water management plans (s 48 Water Act) prepared by the Minister, usually in consultation with communities from catchment areas.
- Mining tenement holders can also apply for a resource operations license (s 176 Water Act), which authorises the interference with the flow of water and/or take of water to supply their resources operation.
- Chapter 3 of the Water Act provides for the management of impacts on underground water from the exercise of underground water rights by resource tenement holders.
  - Resource tenure holders must monitor, assess and report on their impacts on water bores and to enter make good agreements with those bore owners (s 361 Water Act). There are exemptions for low-risk operations.
  - Additional requirements apply for cumulative impact management areas (s 365 Water Act).
- The Water Act interacts with the EP Act, allowing a person to interfere with water flow if they have an environmental authority with a condition relating to the watercourse in question (s 98 Water Act).
- The Water Act also interacts with the *Planning Act 2016* (Qld) in relation to the development assessment process, where an area is under a development permit. Whilst a water license will authorise water use, it does not authorise the works required to extract water.
- The Commonwealth Water Act was enacted mainly in reliance on the External Affairs power to implement international environmental legal obligations in relation to the Murray-Darling Basin in South-West Queensland. It provides for the Basin Plan to set sustainable diversion limits that must be given effect by the Water Act (Qld).

### 5.2.3 Victoria

The *Mineral Resources (Sustainable Development) Act 1990* (Vic) (MRSD Act) is the main Act regulating mining in Victoria. As discussed in 3.6.1, the MRSD Act is administered by ERR, which is a part of the Department of Jobs, Precincts and Regions. The minerals production tenement is called a ‘mining licence’ and the Act prescribes the process for applying for the grant of a mining licence, including special provisions for the grant of mining licences relating to coal.<sup>389</sup> While the licence application must describe the mineral resource and contain all the details required by the regulations,<sup>390</sup> and the licence may include conditions about rehabilitation of the land and about the elimination and minimisation of risks to the environment, the public, or to land or infrastructure in the vicinity, and protection of groundwater,<sup>391</sup> the true regulation of the proposed mining project comes through the work plan, the approval of which occurs after the grant of a licence: see below.

Most major mining proposals are likely to require an integrated environmental impact assessment under the *Environmental Effects Act 1978* (Vic) (EE Act), known as an environmental effects statement or ‘EES’. It is administered by the Department of Environment, Land, Water and Planning (DELWP) prior to the issue of a mining licence and approval of a work plan under the MRSD Act. The EES process is discussed further below.

The *Environmental Protection Act 2017* (Vic) (EP Act) sets out the legislative framework for the protection of human health and the environment from pollution and waste and is administered by an independent Environment Protection Authority (EPA). After a mining lease is granted, mining work plan applications may need to be formally referred to the EPA, though the source of any such duty is unclear.<sup>392</sup> Generally, mining activities that involve:

- discharging or depositing mining or extractive industry wastes solely to land; or
- discharges or emissions solely to the atmosphere

are exempt from the requirement to hold a development and operating licence under the EP Act provided those activities are undertaken in accordance with the MRSD Act.<sup>393</sup> This means that, generally, onsite impacts are regulated under the MRSD Act and offsite discharges are regulated under the EP Act. In addition, the EP Act imposes a general environmental duty on all Victorians:

*A person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable.*<sup>394</sup>

The *Planning and Environment Act 1987* (Vic) (PE Act) governs land use planning and is administered by DELWP. A mining project must gain planning permission under the local planning scheme, except where an EES has been undertaken, or a planning scheme amendment<sup>395</sup>

<sup>389</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) Part 2.

<sup>390</sup> *Ibid*, s 15(1BB) and (6B).

<sup>391</sup> *Ibid*, s 26(2)(a).

<sup>392</sup> A search of the *Mineral Resources (Sustainable Development) Act 1990* (Vic) and *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) and the *Environmental Protection Act 2017* (Vic) and *Environment Protection Regulations 2021* (Vic) revealed no such requirement, though such a requirement is suggested in EPA Victoria, ‘Mining and quarrying – Guide to preventing harm to people and the environment’, June 2021, pp. 18-19 See also Preparation of Rehabilitation Plans Guideline for mining and prospecting projects 2020, Version 1.0 (Vic), 3.2.2, referring to the EPA as ‘a statutory referral authority for mining work plans’ without citing any legislative authority.

<sup>393</sup> *Environment Protection Regulations 2021* (Vic), Schedule 1, item 37, C01 (Extractive industry and mining). See also EPA Victoria, Protocol for Environmental Management, State Environment Protection Policy (Air Quality Management) Mining and Extractive Industries, 2007.

<sup>394</sup> EP Act, s25.

<sup>395</sup> Sections 42(6)-(7) of the MRSD Act oust planning permit requirements for mining undertaken where an EES process is undertaken.

### 5.2.3.1 MRSD Act process

A mining licence will entitle the holder to explore for minerals, undertake mining on the licensed land and construct any necessary or incidental facilities required to do so.<sup>396</sup> When considering whether or not to grant a licence, the Minister must determine whether the licence holder is ‘fit and proper’.<sup>397</sup> In doing this, the Minister will have regard to whether ERR has previously had to take action to rehabilitate land due to the applicant’s failure to comply with its rehabilitation requirements under the MRSD Act, whether the applicant has previously had a licence cancelled, or whether the applicant has been convicted of an offence involving fraud or dishonesty.<sup>398</sup>

The MRSD Act together with the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) (MRSDMI Regulations)<sup>399</sup> establish the process for a mining licence application. The application must include, among other things:

- A description of the mineral resource that will be economically viable to produce;<sup>400</sup>
- Details of the proposed program of work for each year of the licence which would necessarily indicate when closure is planned, and a schedule for the commencement of mining (but not a detailed schedule for the cessation of mining);<sup>401</sup> and
- Details of the applicant’s experience in mining works and associated rehabilitation.<sup>402</sup>

Although the licence itself can be approved without a separate mine closure plan, no mining can commence until the mining ‘work plan’, which must include a ‘rehabilitation plan’,<sup>403</sup> has been approved. A mining licence holder must not do any work except in compliance with the licence and approved work plan.<sup>404</sup> Further, a mining licence holder who has an approved work plan must not carry out any work on the land unless the licensee has lodged, at least 21 days before commencing that work, an area work plan schedule.<sup>405</sup>

Victoria relies heavily on the work plan to regulate the mining activity and rehabilitation. It includes detail of all work to be undertaken,<sup>406</sup> risk management measures,<sup>407</sup> the rehabilitation plan<sup>408</sup> and other matters such as the community engagement plan.<sup>409</sup> The requirements for the work plan are significantly more detailed than for the licence application with the result that a significant amount of detail about mining methods and impacts will only be available after the licence has been granted.<sup>410</sup> The licence is an allocation of mineral rights and confers the right to apply for work plan approval, before which operations cannot be commenced.

<sup>396</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 14(1).

<sup>397</sup> *Ibid*, s 16(1).

<sup>398</sup> *Ibid*, s 16.

<sup>399</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 15.

<sup>400</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 15(1BB) and (6B).

<sup>401</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 15(1)(d).

<sup>402</sup> *Ibid*, r 15(1)(i).

<sup>403</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40(3)(e).

<sup>404</sup> *Ibid*, Part 3, especially ss 39-40A.

<sup>405</sup> *Ibid*, s 41AD.

<sup>406</sup> With the exception of mining covering an area of 5 hectares or less that does not involve any underground operations, blasting, clearing of native vegetation or chemical treatments: *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40(2).

<sup>407</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40(3)(b) and (c).

<sup>408</sup> *Ibid*, s 40(3)(e).

<sup>409</sup> *Ibid*, s 40(3)(d).

<sup>410</sup> *Ibid*, s 39.

A work plan must “be appropriate in relation to the nature and scale of the work proposed to be carried out”.<sup>411</sup> If the work plan relates to any Crown land, the Crown Land Minister must be consulted.<sup>412</sup> The work plan must also include:

- Identification of risks that the works might pose to the environment, the public, the land, property, or infrastructure in the vicinity of the activity (the Risk Factors);
- A description of sensitive receptors in relation to the Risk Factors;
- Specification of what the licence holder will do to eliminate or minimise the risks to the extent reasonably practicable;
- A plan for community consultation throughout the period of the licence;
- A rehabilitation plan for the land covered by the licence;
- For declared mines, mine stability requirements and processes; and
- Other matters such a ‘general’ description of mine operations as relevant geological information and a site map.<sup>413</sup>

Coal mines must also include a fire risk management plan as part of their work plan (the history of this requirement is discussed in the Latrobe Valley case study).<sup>414</sup>

The rehabilitation plan is a distinct document to be approved during the work plan approval process and forms part of the work plan. Its content is defined by both statute and regulations, with a primary consideration being “the desirability or otherwise of returning agricultural land to [it’s pre-mining licence] state”.<sup>415</sup> The mining licensee must rehabilitate the land in accordance with the approved rehabilitation plan<sup>416</sup> and the owner of the underlying land may request the licensee to make a written agreement as to the rehabilitation plan.<sup>417</sup> The rehabilitation plan requires a description of proposed post-mining land uses (with a consideration of community views), proposals for the “progressive rehabilitation, stabilisation and revegetation of extraction areas, waste disposal areas and other land affected by the mining work”, and how any land forms will achieve ‘complete rehabilitation’, being ‘safe, stable and sustainable’ and capable of supporting the proposed post-mining land use.<sup>418</sup> The rehabilitation plan must include a schedule of milestones along with identification and assessment of risks and their potential residual impacts on the Risk Factors which are identified in the work plan.<sup>419</sup>

Information about any hazards that might arise during operation or due to rehabilitation work must also be detailed in a work plan.<sup>420</sup> This information should be included in a separate risk management plan and detail what action will be taken to eliminate or minimise the hazards as far as reasonably practicable.<sup>421</sup> The standards to which rehabilitation and risk management measures will be held are to be set in the work plan and approved by the Minister.<sup>422</sup>

<sup>411</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40(3).

<sup>412</sup> *Ibid*, s 40A.

<sup>413</sup> *Ibid*, s 40(3); *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 42.

<sup>414</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) sch 8.

<sup>415</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 79.

<sup>416</sup> *Ibid*, s 78(1).

<sup>417</sup> *Ibid*, s 78(4).

<sup>418</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 43.

<sup>419</sup> *Ibid*.

<sup>420</sup> *Ibid*, r 44.

<sup>421</sup> *Ibid*, r 45.

<sup>422</sup> *Ibid*, r 44 & 45.

A “Preparation of Rehabilitation Plans Guideline for mining and prospecting projects” was published in February 2020 by ERR (Rehabilitation Guidelines).<sup>423</sup> It sets out a nine-step process for developing a rehabilitation plan as follows:

- Developing a knowledge base to support the rehabilitation plan;
- If necessary – comparing a current plan against new regulatory requirements;
- Proposing post-mining land uses;
- Identifying potential post-mining landforms;
- Separating the site into areas with similar rehabilitation requirements;
- Developing rehabilitation objectives for each area;
- Developing rehabilitation criteria for determining whether the rehabilitation objectives have been met;
- Identifying rehabilitation milestones; and
- Completing a residual risk assessment.

The question arises whether the language used in the regulations for achieving ‘rehabilitation’, including “proposed land uses for the affected land after it has been rehabilitated”, encompasses repurposing of mine assets. The focus of the language of the regulations is on ‘land’ and ‘land forms’, not on mining infrastructure assets. A search of the MRSD Act and accompanying MRSDMI Regulations for the word ‘repurpose’ reveals no result. A more substantive evaluation of how the Act and Regulations may operate in respect of repurposing proposals requires future research. In approaching that research, it will be helpful to consider the following.

MRSDMI Regulation 43(2)(b) requires that the post-mining landform be “safe, stable and sustainable”.<sup>424</sup> That term is defined in Regulation 4 as:

*safe, stable and sustainable means—*

*(a) is not likely to cause injury or illness; and*

*(b) structurally, geotechnically and hydrogeologically sound; and*

*(c) non-polluting; and*

*(d) aligns with the principles of sustainable development;*

The Rehabilitation Guidelines state that ERR will have regard to the principles of sustainable development as outlined in section 2A of the MRSD Act but these principles say nothing about repurposing mine infrastructure assets. It is feasible to say that mine legacy land forms may be repurposed for rehabilitation purposes, but none of the language employed in these instruments addresses the repurposing of infrastructure assets and the management of residual risks that may arise.

### 5.2.3 Future Research Point

A future research question is whether the MRSD Act and Regulations provides for ‘repurposing’ of legacy mine infrastructure assets as an acceptable component of rehabilitation and how the residual risks of such repurposing may be addressed.

<sup>423</sup> Preparation of Rehabilitation Plans Guideline for mining and prospecting projects 2020, Version 1.0 (Vic).

<sup>424</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic), Regulation 43(2)(b).

### 5.2.3.2 EES and Land Use Planning Processes

A mining proposal, in the form of a work plan or proposed variation of a work plan, that is likely to have a significant impact on the environment at a regional or State level will be required to go through an ‘Environment Effects Statements’ (EES) process, which is administered by the Minister administering the *Environment Effects Act 1978* (Planning Minister).<sup>425</sup> There are a variety of ways in which an EES for a mining project can be required including:

- A proponent of works can seek the advice of the Planning Minister as to whether it needs to prepare an EES.<sup>426</sup>
- The decision-maker required by the MRSD Act (or other Victorian Act such as the EPA under the EP Act) to make a decision about works may refer the matter to the Planning Minister for advice as to whether an EES is required.<sup>427</sup> and
- The Planning Minister may also independently call for an EES or supplementary EES.<sup>428</sup>

On a plain reading of the language of the legislation, the time to consider undertaking an EES for a mining project is when the proponent is preparing a work plan after having obtained a mining licence. However, this does not necessarily happen in practice. For example, a proponent may decide to refer the project to the Planning Minister for a decision as to whether an EES is required before getting to the work plan approval stage, which is what happened in the Fingerboards Mineral Sands Project, where the EES was conducted before the proponent had even obtained a mining licence.<sup>429</sup>

Importantly, once the Planning Minister has determined that an EES is required, other decision-making processes will be suspended until the EES process is completed and the Planning Minister has made a recommendation to other relevant government agencies to consider in exercising their legal powers to authorise (or not) the project.<sup>430</sup>

The *Ministerial Guidelines for the Assessment of Environmental Effects under the Environment Effects Act 1978* (Guidelines) establish what an EES should contain and how an EES is assessed. An EES must take a holistic, integrated approach and consider the impacts of the proposed activities on the following matters:

- Physical systems;
- Ecological systems;
- Human communities;
- Land use effects; and
- Economic effects.<sup>431</sup>

<sup>425</sup> Under the *Environment Effects Act 1978* (Vic). Refer to the *Ministerial Guidelines for the Assessment of Environmental Effects under the Environment Effects Act 1978* for further information on what is considered to be a “significant impact” and the process for referring proposals under the Act. In addition, if the Minister administering the MRSD Act considers that the proposed work plan or variation to a work plan will have a ‘material impact’ on the environment, they may require the licence holder to submit an impact statement, a copy of which must be provided to the Minister administering the Act (Planning Minister): *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 41A.

<sup>426</sup> *Environment Effects Act 1978* (Vic) s 8(3).

<sup>427</sup> *Ibid*, s 8(1).

<sup>428</sup> *Ibid*, ss 5 & 6 (note also s 8(4)).

<sup>429</sup> Engage Victoria, Department of Environment, Land, Water and Planning, ‘Fingerboards Mineral Sands Project Inquiry and Advisory Committee’, conducted in 2021. The Planning Minister’s recommendation against the proposal has not prevented the proponent from proceeding to apply for a mining licence.

<sup>430</sup> *Environment Effects Act 1978* (Vic) ss 8A-8F.

<sup>431</sup> *Ministerial Guidelines for Assessment of Environmental Effects 2006* (Vic) p 16.

Within the above considerations, cumulative and indirect effects must also be considered to the extent that existing knowledge will allow.<sup>432</sup> The EES also needs to include a management framework addressing the effects and risks identified and establish the standards against which the success of that framework will be measured.<sup>433</sup> The use of adaptive management approaches are encouraged, but the guidelines note that such an approach must be accompanied by effective, regular monitoring.<sup>434</sup>

Significantly, the EES process requires public notification and consultation, and part of the assessment process requires the Planning Minister to determine the form and extent of public review required – this is discussed in further detail at 5.4.1.3, below.<sup>435</sup> Following the public review, the Planning Minister will provide a final assessment of the EES, which can result in a finding that:

- The project has an unacceptable level of environmental impacts;
- The project will require major changes and/or further investigation;
- The project is acceptable with some variations or conditions imposed;
- The project is acceptable but needs advice on incorporating appropriate measures to mitigate risk;
- The project is approved as it is.<sup>436</sup>

It is important to note that the Planning Minister's assessment is not an approval decision; rather it is an assessment that other decision makers must consider when granting or refusing to grant relevant approvals of works, such as for the mining licence work plan and rehabilitation plan.<sup>437</sup>

The PE Act provides land use decision-making guidance, through the State Planning Policy Framework and relevant Local Planning Policy Frameworks. Where the project requires a planning scheme amendment, the amendment will generally be publicly exhibited in conjunction with the relevant EES.<sup>438</sup> In addition, where an application for a development licence under the EP Act has been made, that application will usually also be exhibited simultaneously with the EES. A work plan cannot be approved until all required planning approvals have been granted or the Planning Minister has submitted the EES assessment.<sup>439</sup> Where an EES is not required but a planning permit is required, the MRSD Act provides for a work plan (or work plan variation) approval process that integrates with the PE Act planning permit process (statutory endorsement process) to avoid duplication.<sup>440</sup>

Overall, the Victorian legislation for mine works and rehabilitation planning integrates the processes under the MRSD Act with the EES and land use planning procedures. However, future research is suggested to investigate how the effectively the EES process works in practice if it can be conducted prior to the actual legal procedures with which it is designed to be integrated and result in a recommendation from the Planning Minister before a proponent has formally submitted a mining licence application, let alone a works plan application.

<sup>432</sup> *Ministerial Guidelines for Assessment of Environmental Effects 2006* (Vic) p 18.

<sup>433</sup> *Ibid*, p 20.

<sup>434</sup> *Ibid*.

<sup>435</sup> *Ibid*, p 23.

<sup>436</sup> *Ibid*, p 28.

<sup>437</sup> Also, any environmental approvals and water licences.

<sup>438</sup> *Planning and Environment Act 1987* (Vic) ss 153 & 97B.

<sup>439</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40A(2)(a).

<sup>440</sup> *Ibid*, Part 6B.

### **5.2.3.2 Future Research Point**

A future research question could investigate how effectively the EES process works in practice if it can be conducted prior to the actual legal procedures with which it is designed to be integrated and result in a recommendation from the Planning Minister before a proponent has formally submitted a mining licence application, let alone a works plan application. Could such a practice deprive participants in the EES process of the effective opportunity to review and comment on the formal works plan and rehabilitation plan proposal?

## Victorian water law

### **Water Act 1989 (Vic) (Water Act)**

### **Heritage Rivers Act 1992 (Vic) (Rivers Act)**

### **Catchment and Land Protection Act 1994 (Vic) (CLP Act)**

### **Guidelines for the management of water in mines and quarries (Guidelines)**

- The MRSD Act states that any licence holder who proposes to do work under a mining licence on land that is owned by, vested in or managed by the Melbourne Water Corporation must obtain its consent (s 44).
- Unlike Western Australia, there is no inherent right to take and use water under a mining licence. A separate licence under s 51 of the Water Act will be required to take and use water from a waterway, water from a spring, water from a dam or groundwater.
- The Water Minister must give the Melbourne Water Corporation, the relevant Catchment Management Authority and any other authority holding a bulk water entitlement an opportunity to consider the licence application and make any objections before granting the application (s 51C).
- The Water Minister may under s 56 impose conditions on the licence relevant to:
  - The protection of a waterway;
  - Prescribing purposes for which the water may be used;
  - The maximum amounts of water that may be taken; and
  - General protection of the environment, among others.
- The Guidelines are aimed at assisting mine operators in managing the discharge of wastewater from a mine site to protect groundwater quality and minimise the potential for polluting impacts such as acid mine drainage. This approach is in line with the EP Act.
- The Guidelines emphasise waste minimisation, with eight levels of priority for reducing wastewater impacts (p 2):
  - Avoidance.
  - Reduction.
  - Reuse.
  - Recycling.
  - Recovery of energy.
  - Treatment.
  - Containment.
  - Disposal.
- The CLP Act is administered by DELWP and prioritises biodiversity management within regional catchment areas and promotes community involvement in developing management strategies. The CLP Act lists 124 proclaimed 'special water supply' catchment areas which are protected.

#### 5.2.4 Comparative Analysis of Presenting Plans for Approval

All three jurisdictions have regulatory frameworks for mine closure planning that utilise statute, regulations and guidelines, with the Western Australian guidelines having a simple form of statutory recognition. The Queensland legislation is the most comprehensive and detailed in all three forms of these instruments and, potentially, the most complex to administer but likely the most certain in its regulatory requirements. The Western Australian legislation is the least comprehensive and the least certain in the standard regulatory requirements, and is subject to significant exemptions from those standard requirements by the operation of the State Agreements. The Victorian legislation has many unique features addressing the currently transitioning Latrobe Valley mining industry.

The mine closure planning process across the three jurisdictions features some significant common elements and some key differences. The following common elements may be identified for all three jurisdictions, with the qualifying differences.

1. All three require mine closure planning to be undertaken before mining operations can commence, but:
  - a. Queensland requires the environmental authority and PRC Plan to be approved at the same time as the grant of the resource tenement and has separate government agencies administer separate resources and environmental legislation for the resource tenure and environmental authority approvals;
  - b. Victoria provides for the grant of the mining tenement with minimal proposal information and a subsequent work and rehabilitation plan approval process defined in detail by statute and regulations that are administered by the resource agency that administers the resource tenure, but including some integration of with the environmental protection and land use planning regimes;
  - c. Western Australia provides alternative pathways under the Mining Act for approval of a mining proposal and mine closure plan: (i) the traditional pathway through grant of the mining lease; and (ii) a deferred proposal pathway that defers presentation and approval of the mining proposal and mine closure plan to a bureaucratic process conducted after grant of the mining lease, defined only by guidelines of uncertain legal effect, and administered by the same resource agency that administers resource tenure. Large mining projects are often regulated under State Agreements that avoid the Mining Act statutory process but apply the closure planning guideline.
2. All three provide for an environmental impact assessment (EIA) process to be conducted for projects with significant environmental effects, though the institutional and procedural design of the EIA varies greatly:
  - a. Queensland administers the statutory EIA process under the same Act and through the same environment agency as administers the environmental authority;
  - b. Victoria links the mining work and rehabilitation plan process to the EES process conducted under separate legislation by a separate planning department producing a ministerial recommendation to inform approval of the plan, and maybe of the mining tenement, under the MRSD Act; and
  - c. Western Australia conducts EIA of significant proposals by a separate independent EPA on referral from the resources agency, with final approval given by joint decision of the Environment Minister and the Resources Minister, and EIA is the only basis for requiring mine closure planning for State Agreement mines.

3. All three provide soft law guidance for the preparation and approval of the mining proposals and rehabilitation plans, but Queensland and Victoria provide detailed regulations to set a legal framework for the process and outcomes, whereas Western Australia presently provides only soft law guidance on the process of mine closure planning and execution with no substantive statement of the expected outcomes, though the recently tabled *Mining Amendment Bill 2020* (WA) may change this.

The Western Australian Mining Act and the statutorily endorsed guideline for mine closure planning are unique in not mentioning a goal of progressive rehabilitation. Perhaps that is because the incentive for progressive rehabilitation comes from the terms of providing financial security.

#### 5.2.4 Future Research Point

The contrasting regimes of mine closure and rehabilitation planning in the three jurisdictions raise some important questions about the institutional design features and the legislative definition of the relevant powers, procedures and instruments for that planning. What are the advantages and disadvantages of conducting procedures for mine closure planning at the same time as the grant of the resource tenure or after the grant of resource tenure, and by the same or separate government agencies? Similarly, what is the role of environmental impact assessment of mining proposals and mine closure and rehabilitation planning – how should be it conducted, by whom and with what ultimate legal effect? In evaluating these institutional questions, what difference does it make to provide the essential elements of those procedures and their outcomes in legislation (statute and regulations) as opposed to merely soft law instruments?

### 5.3 Financial security for fulfillment of a Rehabilitation and Closure Plan is essential

#### 5.3.1 Western Australia

The Mining Act requires that an applicant for a mining lease must provide security for compliance with the lease conditions and any requirements of the Act or regulations, and no lease can be granted without such.<sup>441</sup> The security is to be of a prescribed amount and in either the prescribed form or another form as approved by the Minister and be a ‘bond’ or such other method of security as the Minister allows.<sup>442</sup> The Minister may also require the lessee to lodge additional security in the amount specified by the Minister.<sup>443</sup> Prior to 2012, the Minister required mining lease holders to provide unconditional performance bonds.<sup>444</sup> Such bonds can still be required at the discretion of the Minister. Bonds were (and are) aimed at incentivising proper rehabilitation, and the Department of Mines, Industry Regulation and Safety (DMRIS) maintains a system of bonds as an alternative form of security.<sup>445</sup>

In 2012, Western Australia became the first State to introduce the pooled fund approach to mine rehabilitation by passing the *Mining Rehabilitation Fund Act 2012* (WA) (MRF Act).<sup>446</sup> It requires all holders of mining leases not held pursuant to a State Agreement to pay an annual, non-refundable levy into the Mining

<sup>441</sup> *Mining Act 1978* (WA) ss 84A(1) and (4).

<sup>442</sup> *Ibid*, s 126(1)(a)(ii) and (b) & (c). The legal character of bonds and other forms of security are discussed in Sommer and Gardner, “Environmental Securities in the Mining Industry: A Legal Framework for Western Australia” (2012) 31 ARELJ 242 at 253 ff.

<sup>443</sup> *Mining Act 1978* (WA) ss 84A(2) and 126(1)(a)(i) and (1a).

<sup>444</sup> As authorised by *Mining Act 1978* (WA) ss 126(1) and 277(8).

<sup>445</sup> Government of Western Australia, *Bonds*, Department of Mines, Industry Regulation and Safety <<https://www.commerce.wa.gov.au/consumer-protection/bonds>>; *Mining Securities Policy – Administration for compliance with environmental conditions 2020* (WA).

<sup>446</sup> *Mining Rehabilitation Fund Act 2012* (WA).

Rehabilitation Fund (MRF).<sup>447</sup> The annual levy is calculated by the Department of Mines, Industry Regulation and Safety as one percent of the total rehabilitation cost at that time.<sup>448</sup> The total rehabilitation cost is determined using a State-mandated calculator.<sup>449</sup> The requirement to pay an annual levy applies to all mining authority holders, including those persons with a mining authority when the MRF Act came into effect in 2013. It does not include those mining operations conducted under a State Agreement, unless that agreement states otherwise or regulations are passed which require otherwise. Mining authority holders must provide the requisite information to DMIRS to allow DMIRS to calculate the appropriate levy. The MRF is not a replacement for any existing rehabilitation and closure obligations for mining lease holders – rather, it is aimed at providing the State with the funds to rehabilitate abandoned mine sites or sites where rehabilitation obligations are not fulfilled.<sup>450</sup> It is also intended that historical abandoned mine sites in need of rehabilitative work will be addressed using interest on the principal sum of the MRF.<sup>451</sup>

### 5.3.2 Queensland

Both the MR Act and the EP Act require financial security to assure fulfilment of the mine closure duties under each Act.

Prior to the implementation of reform in 2019, Queensland also operated on a bonds system. Financial assurance was determined for each site depending on the area of land that would be significantly disturbed as identified in the Plan of Operations (the precursor to PRC plans). The most common method of providing this bond was through a bank guarantee. The operation of this type of financial assurance remains relevant due to both the large number of mines approved under this system, but also due to the continued use of traditional financial security mechanisms for high-risk mines, as discussed further below.

The MR Act establishes that financial security must be provided for mining leases and that additional security can be required at any time, at the discretion of the Minister.<sup>452</sup> This security can be to assure compliance with any conditions of the lease, as well as compliance with the MR Act.

A separate security scheme, known as the ‘Financial Provisioning Scheme’ (FPS), for assurances relating to EAs held under the EP Act, was enacted by the MERFP Act and commenced on 1 April 2019.<sup>453</sup> It is a pooled rehabilitation fund with a Scheme Manager to administer the fund.<sup>454</sup> All existing financial assurances under the EP Act were transitioned to the new scheme.<sup>455</sup> The holder (or allocated holder as the case may be) of an EA must pay a ‘contribution’ to the fund or a ‘surety’, or perhaps a contribution and a surety.<sup>456</sup> The transitional arrangements for existing mining leases<sup>457</sup> provide that assurance given under the pre-amended EP Act is considered surety under the FPS, and that the Scheme Manager must provide a transition notice to lease holders with an estimated rehabilitation cost greater than \$100,000. All existing financial assurance must be transferred into the management of the Scheme Manager, and the existing quantity of surety will be considered to be the estimated rehabilitation value.

<sup>447</sup> *Mining Rehabilitation Fund Act 2012* (WA) ss 7 & 9.

<sup>448</sup> *Mining Rehabilitation Fund Regulations 2013* (WA) r 4.

<sup>449</sup> *Rehabilitation Liability Estimate Calculator*, Department of Mines, Industry Regulation and Safety <<https://ace.dmp.wa.gov.au/ACE/Public/MrfRleCalculator/RleCalculator>>.

<sup>450</sup> *Mining Rehabilitation Fund Act 2012* (WA) ss 6 and 8(1).

<sup>451</sup> *Ibid*, ss 8(2).

<sup>452</sup> *Mineral Resources Act 1989* (Qld) s 277(2).

<sup>453</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) ss 2 and 24, and Proclamation 15 of 2019.

<sup>454</sup> *Ibid*, Part 2, Div 1.

<sup>455</sup> *Ibid*, Part 7. See also Queensland Treasury, *Financial Provisioning Scheme, Transitional Arrangements*, 2019.

<sup>456</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) (MERFP) ss 47.

<sup>457</sup> *Ibid*, Part 7, and EP Act Part 27, ss 757 ff.

The FPS security liability is calculated according to the company's 'estimated rehabilitation cost'<sup>458</sup> for a mining activity under an EA and the level of risk determined by the Scheme Manager.<sup>459</sup> Under the EP Act, the administering authority determines the estimated cost of rehabilitating the land on which the mining activity will be carried out combined with the more general cost of preventing or minimising environmental harm, or rehabilitating or restoring the environment, in relation to the resource activity.<sup>460</sup> This arguably covers the cost or remediating land contamination. This figure is used as the 'estimated rehabilitation cost' for activities under the EA.<sup>461</sup> If the estimated rehabilitation cost is greater than \$100,000, the Scheme Manager must allocate the EA a risk category which will determine whether the EA holder will contribute to the FPS or provide a surety, or both; there are four risk categories of very low, low, moderate and high.<sup>462</sup> The EA holder must pay an annual contribution to the FPS calculated as a prescribed percentage of the estimated rehabilitation cost, with the percentage being lower for lower risk authorities.<sup>463</sup> In some cases of very low, low or moderate risk, the Scheme Manager may decide that the EA holder only needs to provide a surety, such as a bank guarantee, insurance bond or cash surety deed, for the amount of the estimated rehabilitation cost rather than pay a contribution into the fund.<sup>464</sup> Alternatively, the Scheme Manager may decide that the certain holders of a high risk authority should pay a contribution to the FPS instead of a surety if the holder is not reasonably able to give a surety.<sup>465</sup> An authority holder will need to provide both surety and a contribution if the estimated rehabilitation cost is more than the fund threshold of \$450,000,000.<sup>466</sup> In this circumstance, the contribution is determined by multiplying the fund threshold by the prescribed percentage of risk liability of that EA.<sup>467</sup> In addition, the EA holder must pay a surety that equals the amount of the estimated rehabilitation cost for that EA, less the amount of the fund threshold. Thus, the FPS incentivises the EA holder to conduct progressive rehabilitation and reduce risk to keep the estimated cost below the threshold figure and at the lowest risk possible.

Importantly, the contribution is not refundable except if the mining lease is taken over by another entity, in which case the contribution can be refunded to the previous authority holder on a pro rata basis for the balance of the year.<sup>468</sup> The surety need only be maintained where it is required to cover the estimated cost of rehabilitation.<sup>469</sup> As was noted at 5.2.2 and discussed further at 5.4, the security provided must account for the potential costs associated with the State having to remove any residual property or mineral remaining on the land after mine closure and lease termination.

### 5.3.3 Victoria

Victoria has a substantially different system of financial security compared to Western Australia and Queensland. It retains a system of 'rehabilitation bonds' (see below) and has not adopted the 'pooled fund' system. This may be attributable to its mining industry, which is comprised of three large, long-running coal

<sup>458</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) s 8 defines this concept.

<sup>459</sup> *Ibid*, s 46.

<sup>460</sup> *Environmental Protection Act 1994* (Qld) ss 300. The 'environmental harm' is here taken to mean the harm caused by the activity conducted under the environmental authority and not pre-existing harm caused by a previous and unrelated activity, though the costs of rehabilitating that harm may include the pre-existing harm that will inevitably be remediated by rehabilitation undertaken under the environmental authority: *MRV Metals Pty Ltd v Chief Executive, Department of Environment and Science* [2020] QLC 9.

<sup>461</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) ss 47.

<sup>462</sup> *Ibid*, ss 26 and 27.

<sup>463</sup> *Ibid*, ss 46-47; *Mineral and Energy Resources (Financial Provisioning) Regulation 2019* (Qld) reg 5. The percentage is lower for lower risk authorities; for example, the percentage figure for a very low risk authority is 0.5%, and for low risk 1%.

<sup>464</sup> *Mineral and Energy Resources (Financial Provisioning) Act 2018* (Qld) ss 25, 46 and 55.

<sup>465</sup> *Ibid*, s 46(b).

<sup>466</sup> *Ibid*, ss 11 and 49. The fund threshold is \$450,000,000 or an amount prescribed by regulation.

<sup>467</sup> *Ibid*, ss 47.

<sup>468</sup> *Ibid*, s 50.

<sup>469</sup> *Ibid*, s 55.

mines in the Latrobe Valley, one of which has commenced closure, and a much larger number of smaller mining enterprises that operate across the State. We first explain the bond system before briefly addressing the special financial security provisions that have recently been enacted for the Latrobe Valley coal mines.

Victoria mainly uses a system of bonds, usually in the form of bank guarantees or cash bonds of up to \$20,000 for smaller sites, although there is Ministerial discretion to accept parent company guarantees as well.<sup>470</sup> A mining licensee must not carry out any work until it has entered into a rehabilitation bond for an amount determined by the Minister, for which purpose the Minister may require a certified audit of the rehabilitation liability and a supplementary bond if the Minister believes the existing bond is insufficient.<sup>471</sup> Bonds must be lodged for both private and Crown land leases<sup>472</sup> and rehabilitation obligations must be successfully discharged for return of that bond.<sup>473</sup>

Bonds are calculated by ERR based on what is represented in work plans.<sup>474</sup> Rehabilitation bonds must be reviewed whenever a work plan variation is approved or prior to any lease transfer, and licensees must provide rehabilitation estimates in their annual reports.<sup>475</sup> The licensee must inform ERR when a new stage of operations begins and may be required to provide a further bond.<sup>476</sup> Although ERR may request that the licensee undertake a self-assessment, ERR will then review the bond amount determination.<sup>477</sup> If the mining lease covers private land, part of that review requires consultation with the local council and the land owner.<sup>478</sup>

The Rehabilitation Bonds Guideline allows licensees to self-assess their liability using a Rehabilitation Bond Calculator.<sup>479</sup> The Rehabilitation Bond Calculator is an extensive process, which requires a consideration of the type of mine, what rehabilitation activity will be undertaken, and any assumptions that have been made for the purposes of calculation, among other details.<sup>480</sup> The bond also includes a project management cost set at 10% of the total rehabilitation liability and a contingency cost of minimum 10% of the total rehabilitation liability.<sup>481</sup> Larger sites also include a monitoring cost of 5% of the total rehabilitation liability.<sup>482</sup>

In recent years, it has become very clear that the bonds system is inadequate for the circumstances of the Latrobe Valley. The August 2020 VAGO Report found that ERR was not effectively enforcing compliance with mine rehabilitation responsibilities under the MRSD Act (including bond requirements) and, as a result, Victoria was exposed to substantial financial risk.<sup>483</sup>

To address some of this exposure, 2019 amendments to the MRSD Act authorise the Minister to 'declare' a mine, at which point it becomes a 'declared mine' with additional regulatory requirements for rehabilitation and financial security.<sup>484</sup> Currently, the only declared mines are the three Latrobe Valley coal mines. These mines must prepare plans for the rehabilitation of the declared land, arrange a further rehabilitation

<sup>470</sup> Rehabilitating Mines: Independent assurance report to Parliament 2020-21:1 (August 2020) 28.

<sup>471</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) ss 42(1)(b), 79A and 80.

<sup>472</sup> *Ibid*, s 80.

<sup>473</sup> *Ibid*, ss 79A, 80 & 82.

<sup>474</sup> *Rehabilitation Bonds Guideline 2021* (Vic) s 3.

<sup>475</sup> *Ibid*, s 3.

<sup>476</sup> *Ibid*, s 2.

<sup>477</sup> *Ibid*, s 3.

<sup>478</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 80.

<sup>479</sup> *Rehabilitation Bonds Guideline 2021* (Vic) s 12.

<sup>480</sup> *Ibid*, s 12.

<sup>481</sup> *Ibid*, s 12.8.

<sup>482</sup> *Ibid*, s 12.8.

<sup>483</sup> Victorian Auditor General's Office, <[https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report\\_0.pdf](https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report_0.pdf)>.

<sup>484</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) pt 5.

bond,<sup>485</sup> and pay into the Declared Mine Fund as required by the Minister to fund the monitoring, maintenance and rehabilitation of declared mine land as required.<sup>486</sup> If a licence for a declared mine is cancelled by the Minister, the bond for that licence will also be paid into the Declared Mine Fund.<sup>487</sup> So far there is a lack of regulatory detail surrounding the Declared Mine Fund, and we have no evidence of how the funds have been utilised to date. We describe it in the ‘Table comparing regulatory frameworks’ (chapter 4) as a post-closure fund.<sup>488</sup>

A mine stability levy also applies to the Latrobe Valley coal mines (as opposed to any declared mines) under the MRSD Act.<sup>489</sup> Latrobe Valley coal mine licence holders must pay to the Minister an amount determined by the MRSDMI Regulations.<sup>490</sup> Currently, the levy is paid each financial year.<sup>491</sup> Because the funds are to be used to maintain the ground stability of the specific mine whose operator contributed them, it does not function as a pooled fund in the same way that Western Australia’s and Queensland’s financial security systems do.<sup>492</sup>

### 5.3.4 Comparative Analysis of Providing Security

Western Australia and Queensland have comparable systems for regulating the provision of financial assurance: they both require the payment of annual levies to pooled funds whilst maintaining historical bonds where necessary (or as required by State Agreements in Western Australia). The amount of the annual levy is calculated on the basis of the estimated cost of reported rehabilitation liability. The Queensland scheme is spelled out in greater legislative detail than that in Western Australia. Victoria relies mainly on a system of rehabilitation bonds though the recent amendments to the MRSD Act have introduced a requirement for ‘declared mines’ (currently applicable in the Latrobe Valley) to enter into an additional bond and to pay into a declared mine fund plus an annual mine stability levy, bringing declared mines closer into line with the financial assurance requirements in Queensland and Western Australia.

It is worth noting that, across Australian jurisdictions, there are many overlapping areas of concern about long-term liability, particularly in respect of water and air pollution or contamination. Fire and agricultural viability are also common concerns for land that is going to be restored and revegetated. These potential cumulative and long-term issues create financial concern due to the inherent difficulties in estimating the potential costs of remediation and the longevity of some rehabilitation efforts. In this regard, it is notable that only Victoria provides for consultation with local government and the landowner on the amount of financial security to be held over private land.

It is currently unclear whether there is any beneficial difference to each State’s method of rehabilitation liability calculation and financial assurance. There is more recent (2020) data on the efficacy of Victoria’s financial assurance regime than those of Western Australia and Queensland, and it shows that the bond amounts were very inadequate and administration of the bond requirements frequently non-compliant with the law.<sup>493</sup> There is a significant legislative gap in the Western Australian financial securities in relation to State Agreement mines. These issues could be the subject of future research.

<sup>485</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 84AZU.

<sup>486</sup> *Ibid*, s 84AZZH.

<sup>487</sup> *Ibid*, s 83A.

<sup>488</sup> *Rehabilitating Mines: Independent assurance report to Parliament 2020-21:1* (August 2020) 9.

<sup>489</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 38AAB.

<sup>490</sup> *Ibid*, ss 38AAC & 38AAD.

<sup>491</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 62.

<sup>492</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 38AAA.

<sup>493</sup> Victorian Auditor General’s Office, <[https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report\\_0.pdf](https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report_0.pdf)>, chapter 2.

### 5.3 Future Research Point

It is currently unclear whether there is any beneficial difference to each State's method of rehabilitation liability calculation and financial assurance. There is more recent (2020) data on the efficacy of Victoria's financial assurance regime than those of Western Australia and Queensland, and it shows that the bond amounts were very inadequate and administration of the bond requirements frequently non-compliant with the law. There is a significant legislative gap in the Western Australian financial securities in relation to State Agreement mines. Collecting up-to-date data on the current administration of the financial assurance schemes would be a challenging research task without considerable co-operation from industry and government. The CRC could consider undertaking this task in a later round of research planning and align it with questions of landholder or community consultation on determination of financial security.

## 5.4 Community engagement rights, including local government

Community engagement and consultation in the process of mine closure planning, in the determination of financial security and, ultimately, in the acceptance of residual risks at mine closure are fundamental to achieving success in mine closure, and its accompanying processes of rehabilitation, repurposing and relinquishment of relevant authorisations. Effective community engagement is also central to mining proponents securing and fulfilling their social licence to operate. The section explores how these community rights are defined in law and policy for decision making before operations begin.

### 5.4.1 Rights to information and comment

#### 5.4.1.1 Western Australia

Under the Mining Act, there are three main forms of notice of a mining lease application:

1. notice by the applicant to landholders and local government affected by the lease application;<sup>494</sup>
2. notice by the registrar on the notice board of the registrar's office;<sup>495</sup> and
3. notice by the Director-General on the Department's website.<sup>496</sup>

Access to the application documents requires further steps. The Mining Act requires that all documents that comprise a mining application and any document accompanying a mining application must be made available for public inspection by the Director General of Mines at 'reasonable times'.<sup>497</sup> The Director General of Mines is the chief executive officer of the DMIRS.<sup>498</sup> 'Reasonable times' is not defined but would be subject to existing legal standards of reasonableness. Mining regulations can require a fee be paid for inspecting or obtaining a copy of a document from a mining application; the prescribed fees are minimal.<sup>499</sup> DMIRS maintains a publicly accessible register of mining lease applications, but does not provide opportunity to comment through that register.<sup>500</sup> The EPA also publishes all its decisions on whether or not to assess a mining application but, as explained at 5.2.1.2 above, the almost ubiquitous use of the deferred proposal

<sup>494</sup> *Mining Act 1978 (WA)* ss 33, 74(3) & 118; *Mining Regulations 1981 (WA)* rr 7, 64A & 64B.

<sup>495</sup> *Mining Regulations 1981 (WA)* r 64(2).

<sup>496</sup> *Ibid*, r 64(3A).

<sup>497</sup> *Mining Act 1978 (WA)* ss 74(5).

<sup>498</sup> *Ibid*, s 8.

<sup>499</sup> *Ibid*, ss 74(6); *Mining Regulations 1981 (WA)* r 23B.

<sup>500</sup> Government of Western Australia, *Mining Notices*, Department of Mines, Industry Regulation and Safety <<https://www.dmp.wa.gov.au/Lease-Application-Advertising-1500.aspx>>.

pathway means that a mining proposal and closure plan will not be referred to the EPA at the time of the mining lease application.<sup>501</sup>

Notably, where an application is made using the deferred proposal pathway, mining proposals may not be submitted to DMIRS for assessment until after a lease application has been granted – the proposal is, therefore, not part of the lease application and so the proposal and its mine closure plan do not have to be made available under the Act for public inspection prior to being approved. They are made publicly available on the DMIRS website following approval. The relevant Statutory Guidelines require that a mining proposal and closure plan contain information on consultation with stakeholders as well as a strategy for ongoing engagement.<sup>502</sup> The guidelines must also be made publicly available, including on the Department’s internet website,<sup>503</sup> but this is no surrogate for public notification of the mining proposal and closure plan. Current policy documents do not expressly set out any requirements for public notification or consultation for the deferred proposal pathway.<sup>504</sup> Thus, while an applicant using the deferred proposal pathway should expect to demonstrate to DMIRS some degree of public consultation, there is no legally enforceable process for public disclosure of the mining proposal and closure plan, and this will impede the opportunity for third parties to make submissions.

It is important here to distinguish between the community consultation rights under the statutory procedures for the grant of a mining lease and the lack of clear rights under the deferred proposal pathway.

The Mining Act provides that “any person” may object to the grant of a mining lease.<sup>505</sup> If an objection is filed within the procedural requirements of the Mining Act, then the warden may hear the application for the mining lease and give any person who filed an objection an opportunity to be heard about the granting of that lease.<sup>506</sup> An objection cannot be filed on the basis that there is no significant mineralisation in the land referenced in the application; this means that an objection cannot be made for an application for a mining lease using a deferred proposal pathway based on a mineralisation report.<sup>507</sup> An objection can be based on public interest grounds, including on environmental or groundwater grounds.<sup>508</sup> Objections are lodged either at any mining registrar’s office or online using the Mineral Titles Online forum.<sup>509</sup> Objections lodged on environmental or socio-economic grounds are limited to the existing information about such impacts as provided in the application, and if the application used the deferred proposal pathway, such information would be absent due to the lack of mining proposal.

A mining lease may not be granted in respect of private land that has some improvements, including “land under cultivation”, unless the lease applies only below 30 m from the surface of the land or the landholder has consented.<sup>510</sup>

When granting or renewing a lease, the Minister, warden or mining registrar should take into account any planning schemes and any local government objections on that basis.<sup>511</sup> However, a contradiction of a

<sup>501</sup> *Environmental Protection Act 1986* (WA) ss 39(1).

<sup>502</sup> *Statutory Guidelines for Mining Proposals* (WA) (2020) p 7 and *Statutory Guidelines for Mine Closure Planning* p 4, clause 4.

<sup>503</sup> *Mining Act 1978* (WA) s 70P; *Mining Regulations 1981* (WA) r 25.

<sup>504</sup> *Guidelines for Mineralisation Report and Supporting Statement for a Mining Lease Application* (WA) (2016)

<sup>505</sup> *Mining Act 1978* (WA) s 75(1) and *Mining Regulations 1981* (WA) r 146. The objection should be lodged within 21 days by a person who received notice of the application and within 35 days after the application was lodged.

<sup>506</sup> *Mining Act 1978* (WA) s 75(4).

<sup>507</sup> *Ibid*, s 75(1a).

<sup>508</sup> *FMG Pilbara P/L v Yindjibarndi Aboriginal Corporation* [2011] WAMW 13 [34].

<sup>509</sup> Western Australia, *Objections to mining lease applications*, Department of Mines, Industry Safety and Regulation <<https://www.dmp.wa.gov.au/Minerals/Mining-Lease-4596.aspx>>.

<sup>510</sup> *Mining Act 1978* (WA) s.29(2).

<sup>511</sup> *Ibid*, s 120.

planning scheme and mining lease is not fatal to the granting of the lease if the Minister considers it appropriate and has taken into account the effects of the prospective lease on the scheme.<sup>512</sup>

There is no existing statutory objections process to a mining proposal that is lodged for a mining lease that is granted by the deferred proposal pathway, which means that there is no process before a Warden’s Court and no published decision about how the objections have been addressed. There may be an expectation of stakeholder engagement for a mining proposal that is prepared after a mining lease is granted but the fulfilment of any such expectations depends entirely upon the decisions and actions of the lease holder interpreting the guidelines on mining proposals and mine closure plans.<sup>513</sup>

Should a mining proposal and closure plan be referred to the EPA for EIA, the EPA facilitates public comment in administering its procedures under the EP Act; that is, there is public consultation on whether or not a mining proposal should be assessed and, if so, there will be further consultation on the environmental review document published by the proponent.<sup>514</sup> The EPA does this through its online consultation hub.<sup>515</sup> There is also the right of any person to appeal to the Minister for Environment against an EPA report assessing the mining proposal.<sup>516</sup>

#### 5.4.1.2 Queensland

After filing of an EA application with an accompanying PRC Plan, the administering authority is provided with an initial opportunity to request further information.<sup>517</sup> This stage can last years, as the applicant must be given at least six months to respond to a request, and at least two years if that request includes the requirement for an Environmental Impact Statement (EIS).<sup>518</sup> It is largely at the discretion of the applicant to provide the information, provide partial information, or provide no information, though this will be taken into account in determining whether an approval is granted.<sup>519</sup> As set out above at 5.2. 2.2, there are extensive notification requirements during both the EA and EIS processes, which include that public notification must be given of the proposed terms of reference and the final EIS. Those notices must include comprehensively prescribed content, including information about how to submit comments on the EIS, which informs the exercise of the public right to make submissions on a submitted EIS.<sup>520</sup> During the EA process, the applicant must provide public notification of their PRC plan – that is, making the PRC plan available for the public to review and, if they choose, to send a written comment to the administering authority during a designated submission period.<sup>521</sup> The MR Act requires the applicant to publish the notice in a newspaper and give notice to “every affected person”.<sup>522</sup> The EP Act also requires the applicant to have the application documents publicly available on its website and physically available for inspection during its normal office hours.<sup>523</sup> Public notification is not required where there has been an EIS provided which included community consultation, and no changes have been made to the PRC plan since.<sup>524</sup> Public notification is also not required for the reporting of resource tenure data provided following the application process.

<sup>512</sup> *Mining Act 1978* (WA) s 120(2).

<sup>513</sup> *Statutory Guidelines for Mining Proposals* (WA) (2020) p 7; *Statutory Guidelines for Mine Closure Planning* p 4, clause 4.

<sup>514</sup> Government of Western Australia, *EPA consultation and public comment*, Environmental Protection Authority (15 July 2021) <<https://consultation.epa.wa.gov.au>>.

<sup>515</sup> *Ibid.*

<sup>516</sup> *Environmental Protection Act 1986* (WA) Part VII.

<sup>517</sup> *Environmental Protection Act 1994* (Qld) s 140.

<sup>518</sup> *Ibid.*, s 141.

<sup>519</sup> *Ibid.*, s 146(1).

<sup>520</sup> *Ibid.*, s 54.

<sup>521</sup> *Ibid.*, s 160.

<sup>522</sup> *Mineral Resources Act 1989* (Qld) s 252A.

<sup>523</sup> *Environmental Protection Act 1994* (Qld) s 157.

<sup>524</sup> *Ibid.*, s 150(d).

Under the EP Act, if the administering authority decides to approve an application for an EA (and the accompanying PRC Plan) relating to a mining lease, a legal person making a submission in respect of that application may provide written notice that their submission be an objection to the application.<sup>525</sup> If such an objection notice is provided within 20 business days of the decision being made available to the public, the objection must be referred to the Land Court.<sup>526</sup> The Land Court then has the discretion to make the orders it deems appropriate to address the objection.<sup>527</sup> Objections to the grant of a mining lease or EA may be made to the Land Court on the grounds of impact on human rights protected by the *Human Rights Act 2019* (Qld).<sup>528</sup>

There is some industry concern that the community right to make submissions persists irrespective of the significance of any amendment to the proposed licence or its conditions being requested by an objector. If the submitting party requests that their submission be taken to be an objection to the application after the administering authority's approval of an application, that objection must be referred to the Land Court, no matter how minor. There are examples of objections that were not well articulated or supported by evidence, including as to fears about the miner's unsatisfactory past performance and uncertainty for future rehabilitation proceeding to the Land Court on this basis.<sup>529</sup> The rules of the Land Court do not provide for the award of costs following the outcome of administrative proceedings to determine recommendations on the outcome of objections and referrals,<sup>530</sup> rather each party bears its own costs. However, this industry concern must be balanced against the benefits of maintaining community consultation procedures in the context of mine closure. The outcomes of the lengthy court proceedings leading to the recent recommendations and reasons of Member Stilgoe in *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc (No 2)* [2021] QLC 44 (17 December 2021) affirm the value of strong community engagement procedures that include objections before the Land Court.

The Coordinator General has the power to request that the PRC plan be amended, for example to provide greater detail on how certain residual risks will be addressed.<sup>531</sup> It is also open to the applicant or holder of an approved PRC plan to apply to amend their PRC plan's schedule; the process under the EP Act classifies amendments into minor and major, with distinct requirements for each.<sup>532</sup>

After an EA or PRC plan schedule has been approved and issued, the administering authority must include a copy of it in the relevant register.<sup>533</sup> Amendments, including to the PRC schedule, must be made publicly available.

#### 5.4.1.3 Victoria

Victoria has extensive requirements for notification and public comment in relation to mining licence applications, and associated EES and planning approval processes. There are various procedures for granting

<sup>525</sup> *Environmental Protection Act 1994* (Qld) s 182.

<sup>526</sup> *Ibid.*

<sup>527</sup> *Ibid.*, s 188. For example, see the orders of Land Court President, FY Kingham in the complex situation with the re-hearing of objections in *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc* [2021] QLC 29.

<sup>528</sup> *Waratah Coal Pty Ltd v Youth Verdict Ltd & Others* [2020] QLC 33.

<sup>529</sup> *Consolidated Tin Mines Ltd v Dunn* [2017] QLC 18. Compare *Hancock Coal Pty Ltd v Kelly & Ors* [2013] QLC 9 where the objector opposed the applicant's request for leave to file additional affidavits alleging delay by the objectors but suggesting an attitude by the applicant that the Land Court was "a rubber stamp".

<sup>530</sup> *Adani Mining Pty Ltd v Land Services of Coast and Country Inc (No 2)* [2016] QLC 22. See also a contrary ruling in *Deimel v Phelps* [2020] QLC 2, where the objector withdrew the objection without explanation and was required to pay costs to the lease applicant for by way of partial indemnity for the costs of the applicant in the litigation but not for compensation for the applicant's time in preparing for the hearing or lost production by effluxion of time.

<sup>531</sup> *Environmental Protection Act 1994* (Qld) s 188.

<sup>532</sup> Queensland Government, *Coordinator General*, Department of State Development, Infrastructure, Local Government and Planning (30 November 2020) <<https://www.StateStatedevelopment.qld.gov.au/coordinator-general>>. The community rights to participate in an amendment process are discussed below at chapter 6.4.1.

<sup>533</sup> *Environmental Protection Act 1994* (Qld) s 197.

coal mining licences (by the Minister, the Governor-in-Council and by tender); our explanation focuses on the primary mining licence process and the procedures for determining the subsequent works and rehabilitation plan.<sup>534</sup>

### Consultation under the MRSD Act

The mining licence applicant must publicly advertise the application and give specific notice of it to the owner and occupier of affected land.<sup>535</sup> Advertisement and notice must include how to make an objection, a description of the rights under a mining licence, further statutory requirements before mining may be carried out, details of a proposed program of work and how the applicant will manage impacts of the proposed work on the community (including landholders) and the environment.<sup>536</sup> The Department Head must also give specific notice of the application to persons nominated under the *Aboriginal Heritage Act 2006* (Vic) and the Executive Director under the *Heritage Act 2017* (Vic).<sup>537</sup>

Any person may object to, or make a comment on, a mining licence application within 21 days after the last date on which the application was advertised.<sup>538</sup> Objections and comments may also be inspected at the office of ERR by any person on request.<sup>539</sup> Within 120 days of an application for a mining licence being accepted, the Minister may grant or refuse the licence after considering the objections and comments.<sup>540</sup> The process seems to be entirely within the management of the relevant agency and Minister. However, the Minister may appoint a panel to consider and advise on any matter related to mining and the administration of the Act that is referred by the Minister to the panel.<sup>541</sup> The panel may regulate its own proceedings, and may seek written submissions and / or conduct public hearings. The panel reports to the Minister with recommendations within a maximum of 60 days. The MRSD Act does not specifically state whether a panel could advise on the grant of a mining licence. However, the breadth of its general remit would suggest that the Minister could seek a panel's advice on almost any aspect of MRSD Act administration and the 60 days' time limit on its functions could fit within the time limit for the grant of a mining licence. If so, this would provide an independent process under the MRSD Act for a public hearing and determination of objections and comments on the grant of the mining licence. It is noted that there is the opportunity to consider, in broad terms, the impacts of the proposed mining operations on the surrounding community and environment, and the conditions to be imposed on a mining licence may relate to the rehabilitation of land, the management of risks to the local environment and community, and protection of groundwater.<sup>542</sup>

<sup>534</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) Part 2, Division 2. We do not address Part 2, Division 3.

<sup>535</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 15(5) and *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) 22 and 23. This requirement applies to the highest ranking applicant. The MRSD Act provides for competition between miners, and between miners and other land use interests. The primary process addresses the ranking between competing mining interest holders and once an applicant has been notified that it is the highest ranking applicant it has 14 days to undertake the required public notification.

<sup>536</sup> The information to be provided in the public advertisement and notice is described in Schedule 1 to the *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic).

<sup>537</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 18. This requirement applies to the highest ranked application.

<sup>538</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 24 and s 24A. The MRSD Act does not distinguish between objections or comments other than to say that an objection must include the grounds on which it is made, and a comment must include the basis for the comment. The difference seems to be that an objection opposes the grant while a comment does not.

<sup>539</sup> *Ibid.*

<sup>540</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 25(2).

<sup>541</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) Part 4A. We have not had the opportunity to research the use of such panels in preparing this report.

<sup>542</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 26(2).

We should also note the power of the Minister or Department Head to refer a ‘matter’ to the Mining Warden under s 98 of the MRSD Act. Elda Poletti (2007) examined a 1991 Supreme Court case reviewing the breadth of the Victorian mining warden’s powers.<sup>543</sup> Poletti states:

*“The court adopted the view that the Minister, and through him the Mining Warden, had broad powers associated with the regulation of the mining industry, particularly on Crown land. The exercise of such powers could include considerations of the proper management and operation of the mine which could be relevant to the renewal, grant or refusal of future mining leases” (at p. 359).*

However, her research into the work of the mining warden suggests that referrals to the mining warden generally have not covered broader issues concerning the merits of the grant of a mining licence or approval of a work plan but tend to be limited to disputes between licensees and applicants or between licensees and landowners or others directly and substantially affected by mining works. This is an area that warrants further research.

In addition to matters referred by the Minister or Department Head, it is technically possible that a member of the community that is directly affected, or likely to be directly affected, by work under a licence could refer a ‘dispute’ between it and the department to the Victorian mining warden about the grant or administration of a mining licence, for example.<sup>544</sup> However, there is some research to suggest that this process does not, at least in practice, cover general third party objections to the grant of a mining licence.<sup>545</sup>

The MRSD Act provides for further general and specific consultation before the mining licensee may commence work under the licence.<sup>546</sup> Three key points should be mentioned here. First, as explained above at 5.2.3, the detailed consideration of the plan of operations and rehabilitation comes with the process for approving the work and rehabilitation plans. There is no right under the MRSD Act for the public to make a submission on a work plan or variation to a work plan. However, a mining licence holder has a duty to consult with the community throughout the period of the licence by:

- sharing with the community information about any activities authorised by the licence that may affect the community; and
- giving members of the community a reasonable opportunity to express their views about those activities.<sup>547</sup>

Further, the Regulations give detailed guidance on the information that the work plans must contain to comply with the duty to consult the community, including how the licensee will receive feedback from the community.<sup>548</sup> Secondly, if the land affected by the mining works is private land, the licensee must obtain written consent to the mining from the landholders (owners and occupiers) and have registered compensation agreements with them.<sup>549</sup> Thirdly, the Minister must consult with the municipal council (local government authority) and land owner before determining the amount of a rehabilitation bond.<sup>550</sup>

<sup>543</sup> Elda Poletti, “Victorian Developments – Role of the Mining Warden” (2007) 26 ARELJ 358, discusses the case of *John Pennington Morgan and Philip Robert Taylor v Kevin Ryan Mining Warden and the State of Victoria & Ors* (Supreme Court of Victoria (unreported, Coldrey J), 30 August 1991). Available at <<http://classic.austlii.edu.au/au/journals/AURELawJl/2007/61.pdf>> (visited 2 April 2022).

<sup>544</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) ss 4 and 97.

<sup>545</sup> Elda Poletti, “Victorian Developments – Role of the Mining Warden” (2007) 26 ARELJ 358. See also, Victorian Government, State Services Authority, ‘Review of the Mining Warden: Objectives, functions and alternatives’, 2009, available at <[https://www.vgls.vic.gov.au/client/en\\_AU/search/asset/1267617/0](https://www.vgls.vic.gov.au/client/en_AU/search/asset/1267617/0)> (visited 2 April 2022).

<sup>546</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 42.

<sup>547</sup> *Ibid*, s 39A. And see Part 3 generally.

<sup>548</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 46.

<sup>549</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 42(1)(h).

<sup>550</sup> *Ibid*, s 80(2).

### Consultation under other Acts

Arguably, what is missing from the procedures under the MRSD Act is the careful consideration of the public interest factors relating to environmental protection and land use planning. The most significant public notification requirements are part of the EES and planning approval processes as opposed to the mining licence application process discussed above. A general objective of the EES process is to provide public access to information on potential environmental effects of a project and the ability to make a submission on the proposal.<sup>551</sup> All projects referred to the Planning Minister for a decision about whether or not an EES is required and relevant Ministerial decisions and reasons will be listed on DELWP's website, together with relevant project documentation.<sup>552</sup>

When the Planning Minister determines the requirement for an EES, they will also determine the process for the EES, which usually includes public exhibition of the EES and a public hearing. The EES will usually be notified in at least one daily newspaper, the relevant local regional newspapers, and the Engage Victoria website. The exhibition period is usually 20 to 30 business days.<sup>553</sup> The public must be given access to a copy of the EES, with Ministerial discretion to specify the form of the copies.<sup>554</sup> Where a planning permit, planning scheme amendment or development licence is needed, these will also be exhibited concurrently with the EES documents.<sup>555</sup>

As noted above at 5.2.3, most major mining projects will be required to go through an EES process under the EE Act. In that case, the Planning Minister will determine the EES process, which will usually include the ability for the public to make submissions on the proposal and to be heard at a formal public hearing.<sup>556</sup>

Where a planning permit or a planning scheme amendment is required for a proposed mining project, the public may make submissions under the PE Act to the relevant authority who must consider all submissions. A submission may be rejected if the relevant authority considers it to have been made to obtain a commercial advantage.<sup>557</sup> Where a written objection was received, the affected person may then apply to VCAT to have a decision reviewed.<sup>558</sup> If the mine also requires a development licence under the EP Act, it will be advertised and the public are able to make submissions.<sup>559</sup>

Some of the Victorian administrative institutions also assist in facilitating public consultation through soft law mechanisms. It is the role of the MLRA to prepare a monitoring framework and evaluation method that can be used to assess the effectiveness of rehabilitation strategies, in consultation with community and public sector bodies as well as other stakeholders.<sup>560</sup> The Latrobe Valley Regional Rehabilitation Strategy (LVRRS)<sup>561</sup> states that one of its goals is to encourage better rehabilitation practice and transparency by encouraging authority holders to make their rehabilitation plans publicly available, something it says is in line with the licensee's duty to consult with the community. A related goal of ERR is to improve the management of public records.<sup>562</sup> Victoria maintains a mining register which records mining licences, approved work plans

<sup>551</sup> *Ministerial Guidelines for Assessment of Environmental Effects 2006* (Vic) p 2.

<sup>552</sup> *Ibid*, p 6. <<https://www.planning.vic.gov.au/environment-assessment/referrals-and-decisions>>.

<sup>553</sup> *Ibid*, p 23.

<sup>554</sup> *Ibid*.

<sup>555</sup> *Ibid*, p 29.

<sup>556</sup> The EE Act establishes that, at the discretion of the Minister for the Environment, public inquiries may be held at any time, which includes the Minister inviting and considering public comments on the EES (either from the general public or from a section determined by the Minister): *Environmental Effects Act 1978* (Vic) s 9.

<sup>557</sup> *Planning and Environment Act 1987* (Vic) s 57.

<sup>558</sup> *Ibid*, s 82B.

<sup>559</sup> EP Act s 52(2).

<sup>560</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 84AZC.

<sup>561</sup> Victorian Government, Earth Resources, Projects, 'Latrobe Valley Regional Rehabilitation Strategy', updated 2021, p 21.

<sup>562</sup> Victorian Government, Earth Resources Regulation, Regulatory Practice Strategy for the Rehabilitation of Earth Resources Sites, 2020, (Vic) p 4.

and rehabilitation bonds, but not rehabilitation plans.<sup>563</sup> However, only the basic details of these documents are provided on the register and, for example, the full work plan and the rehabilitation plan are not included on the register. Victoria's publication of EES and mining licence documents currently do not allow for especially easy access as there is no centralised database.

#### 5.4.2 Rights to comment and negotiate – particularly for Traditional Owners

Across all Australian jurisdictions, the rights of Traditional Owners to comment and influence mine closure planning are governed by a complex and evolving mix of hard and soft law. The opportunity afforded to Traditional Owners to be involved in the mine planning process is often dependent on a range of situational factors particular to each site, however Victoria and Queensland have some codification of Traditional Owner consultation in their mine closure regulation.

In Victoria, the MRSDMI Regulations require that the applicant provide information on how they propose to comply with the *Native Title Act 1993 (Cth)* or the *Traditional Owner Settlement Act 2010 (Vic)* in their work plan.<sup>564</sup> There may also be a requirement to obtain approval of a Cultural Heritage Management Plan under the *Aboriginal Heritage Act 2006 (Vic)*, which could include mine closure management issues. There is an option in Queensland for the public to provide submissions to the administering authority on PRC plans or EIS once any further information requested has been provided to the administering authority.<sup>565</sup> It is, therefore, an option for Traditional Owners to provide their own submission, separate from any distinct negotiations or Native Title processes that are occurring simultaneously. Under the SSRC Act, Traditional Owners may also have an opportunity to provide comment whilst a social impact assessment is being undertaken.<sup>566</sup> Finally, the MR Act at section 248 requires the applying body to obtain the consent and/or view of any legal person with existing authority over the land, and at section 260 provides a process for objections to the grant of the mining lease to be provided to the relevant Minister.

There is a distinct lack of regulatory requirement for Traditional Owner engagement in Western Australia relevant to mine closure; the *Aboriginal Cultural Heritage Act 2021 (WA)* requires an Aboriginal Cultural Heritage Management Plan to be created in consultation with the relevant Traditional Owners before mining activity but does not specify a requirement relevant to mine closure practices.

The native title process at a Commonwealth level can influence mine closure if that is something negotiating parties choose to address. We have not had the opportunity to address this.

#### 5.4.2 Future Research Point

The rights to comment and negotiate for native title holders are well recognized in law. A detailed analysis of the outcomes from the exercise of these rights in relation to mine closure planning was beyond the scope of this research project. Future research could consider how Traditional Owners may exercise their native title rights to negotiate about the effects of mine closure on their lands and how the exercise of those rights may interact with or be supplemented by the participation of Traditional Owners in the procedures for community engagement under resource tenure and environmental authorization legislation.

<sup>563</sup> *Mineral Resources (Sustainable Development) Act 1990 (Vic)* Part 6, s 69; *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019 (Vic)* Part 6 and Schedule 13.

<sup>564</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019 (Vic)* r 13(c).

<sup>565</sup> *Environmental Protection Act 1994 (Qld)* s 160, s 54.

<sup>566</sup> *Social Impact Assessment Guideline 2018 (Qld)* p 3.1.

### 5.4.3 Acceptance of residual risk at the pre-mine operation stage

As explained at 1.1.9, ‘residual risk’ refers to any ongoing threats or dangers presented by a mine site after it has been rehabilitated and closed. It may be expected that the calculation of residual risk will receive most attention at the end of the mine closure period when the final stages of rehabilitation, repurposing and relinquishment of the tenure are being considered. However, the question could also be addressed at the pre-operation stage as the fundamental questions of desirable land use are being considered in even granting the resource tenure, approving the initial rehabilitation and closure plan, and setting the financial security. The question is whether the legislation enables or requires such early consideration of residual risk and an evaluation of whether all parties, including the community, understand and accept the prospects of the project’s risks.

## Case Spotlight

### *Springsure Creek Coal Pty Ltd v Arcturus Downs Limited (No. 2) [2018] QLC 8 & 20*

- Arcturus submitted that the Land Court (Qld) should reconsider granting the mining lease for three reasons under section 269(4) of the MR Act:
  - Springsure Creek’s past performance had been unsatisfactory.
    - The Court found that this requirement needed substantial inadequacy on the part of the relevant company, and the standard was not perfection.
  - There would be substantial and unacceptable adverse environmental impact.
    - The Court found that the impact did not meet the threshold of denying the mining lease, however made some recommendations about improvements to rehabilitation requirements that might better rectify any environmental impacts.
  - Mining was not an appropriate land use or sound land management.
    - The Court found that due to the evidence of profitable mineral deposits and the lack of significant alternative land uses, this threshold was not met.
- Ultimately the mining lease was granted and Arcturus’ objection was dismissed. Arcturus application for judicial review was unsuccessful: [2019] QSC 84.

#### 5.4.3.1 Western Australia

Western Australia does not have a statutory residual risk framework. The Guideline for Mine Closure Planning defines ‘residual risk’ as “Risk remaining after risk treatment”, and specifies that a mine closure plan must contain a closure risk assessment, which includes an evaluation of risk pathways to determine a ‘residual risk rating’ as well as demonstrating that all identified residual risks are as low as they reasonably can be.<sup>567</sup>

The Mine Closure Plan Guidance,<sup>568</sup> a non-statutory instrument, elaborates that

*“[m]ine closure plans should provide adequate information on the methods used and processes undertaken to identify the closure risks and their potential environmental impacts post-mining, and must propose workable management mechanisms”*

<sup>567</sup> *Statutory Guidelines For Mine Closure Plans (WA) (2020)* section 7, p 5.

<sup>568</sup> *Mine Closure Plan Guidance (WA) (2020)*, a supplementary document to the Guidelines, addresses Closure Risk Assessment in more detail at section 7.

And suggests that this “process should be integrated with stakeholder engagement”. Appendix two of the Guidance further articulates principles of mine closure planning, recommending that “any residual liabilities relating to agreed land use are identified and agreed to by the key stakeholders”.<sup>569</sup>

The Guidelines and the associated provisions of the Guidance also address “closure outcomes and completion criteria”, “closure implementation”, “closure monitoring and maintenance”, and “financial provisioning for closure”. The Mine Closure Plan (MCP) submitted for review every three years should address these elements of the mine closure process and obtain written approval from the prescribed official, and one may expect that the official will not approve an MCP that does not fulfil the elements of the Guideline, though there is no statutory declaration of any effect given by the official’s approval, such as implementation of the MCP becoming a condition of the lease.<sup>570</sup> Somewhat surprisingly, it is another statutory guideline, the Mine Closure Completion Guideline (November 2021), that says “[a] standard condition is ... imposed on tenements requiring the management of mine closure to be carried out in accordance with an approved Mine Closure Plan”.<sup>571</sup> This statement creates no legal duty on DMIRS or the leaseholder and there has not been the opportunity to conduct an empirical analysis of the fulfilment of the statement.

As explained in 5.2.1.3 above, there is much doubt about the legal effect of a MCP and there is no provision in the Act addressing any formal determination of actual residual risk and associated liabilities at the time of closure and tenure relinquishment, and how those residual risks will be addressed. Thus, while the MCP process may set expectations about residual risk, it will not likely determine the legal liabilities at the time of relinquishment.

The Mine Closure Completion Guideline (November 2021) describes the process for the leaseholder presenting information (a ‘Mine Closure Completion Report’) to DMIRS evidencing the implementation of the MCP in order to seek relinquishment of the mine tenure and release from financial provisioning obligations described in section 5.3. This process is considered below at 6.5.

#### 5.4.3.2 Queensland

As discussed in 5.2.2 above, the Queensland legislation requires the administering authority, in deciding to approve a PRC Plan Schedule, to assess if each PRC Plan objective can be achieved through the provisions of the Schedule. However, the PRC Plans do not expressly deal with or account for residual risk at the stage of initial approval. The MR Act requires the Land Court and the Minister to consider “the current and prospective uses of that land” in deciding whether the proposed mining operation is an appropriate use of land. This consideration should encompass, in broad terms, the prospect of residual risks after mine closure. Arguably, the procedures of environmental impact assessment and the requirements of the *Strong and Sustainable Resource Communities Act* also provide the opportunity for a consideration of residual risks. There was not the opportunity to research whether mining lease applications and associated environmental and social impact assessments have, in fact, involved calculations and considerations of residual risk.

The management of residual risks has been addressed since the MERFP Act came into operation. Further policy research and consultation by the Queensland Treasury<sup>572</sup> led to recommendations in 2019 that the State Government develop a residual risks payment framework allowing “the State to receive any funds

<sup>569</sup> Ibid, 27.

<sup>570</sup> *Mining Act 1978* (WA) ss 82(1)(ga) and 84AA.

<sup>571</sup> Government of Western Australia, Department of Mines, Industry Regulation and Safety, Mine Closure Completion Guideline, version 1.0, November 2021, section 4.2, p 5.

<sup>572</sup> Queensland Government, Queensland Treasury, Improving rehabilitation and financial assurance outcomes in the resources sector, *Framework for Queensland’s Residual Risk in the Resource Sector*, 2018 <<https://www.treasury.qld.gov.au/programs-and-policies/improving-rehabilitation-financial-assurance-outcomes-resources-sector/>>.

necessary to ensure enduring rehabilitation outcomes at the surrender of an environmental authority”.<sup>573</sup> The focus of this new framework, which is supplementary to the Financial Provisioning Scheme (discussed in 5.3.2), is on the calculation of post surrender costs and the “identification of key roles in the post-surrender management of land and funds”.<sup>574</sup> These issues will be discussed below at 6.5.2.

#### 5.4.3.3 Victoria

Victoria does have some opportunity for residual risk planning that engages with community acceptance of post-mine residual risks, though the relevant documentation does not always use the term ‘residual risks’. As discussed in 5.2.3, a mining licence may be subject to conditions about “rehabilitation of the land” and about the elimination and minimisation of risks to the environment, the public, or to land or infrastructure in the vicinity, and protection of groundwater.<sup>575</sup> However, these are general risks that may arise at any stage of the project, not specifically after mine closure. A mining licensee applying for approval of a work and rehabilitation plan under the MRSD Act, regulations and the rehabilitation plan guidelines, must, in substance, conduct a residual risk assessment for land that will be rehabilitated, although minimal additional guidance on completing that assessment is provided.<sup>576</sup> Notably, however, the mining licensee is not explicitly required to conduct community consultation on residual risks after rehabilitation, though they may be covered in the general community engagement conducted for the work plan. As explained above at 5.2.3, there may also be an EES process (with detailed public consultation) for the work and rehabilitation plan application, and the EES guidelines reference risk considerations that could include residual risks, especially when construed holistically with the requirements for the rehabilitation plan.<sup>577</sup> However, that term is not used in the EES guidelines and it is possible that residual risks from ineffective rehabilitation are subsumed into a broader consideration of the environmental significance of the mining proposal. In summary, it is likely that post-rehabilitation residual risks could be considered in the EES process; however, there may be difficulties in assessing some indirect or long-term risks<sup>578</sup> and the Minister’s assessment of the EES is only advisory.

#### 5.4.4 Comparative Analysis of Community Engagement Rights

This section 5.4 has considered community engagement rights in relation to the grant of resource tenures and mine closure planning, including consultation on the mine operator’s financial security obligations and the residual risks of environmental degradation after mine rehabilitation and closure have supposedly occurred. Key elements of those community rights are the right to receive information and to comment on the proposed instruments before they are granted or approved. Again, we see that there are some quite significant differences between the three jurisdictions.

Perhaps the most significant difference is the statutory transparency and certainty of the Queensland procedures for community rights in relation to the grant of resource tenure and the environmental authority. Neither instrument may be granted until there has been a full community consultation process that involves effective notice, opportunities to make submissions, rights to object and have the objections to both instruments determined simultaneously and independently in Land Court proceedings that lead to public reasoned recommendations to the respective decision-makers, who must consider them. Both instruments have direct legal effect.

<sup>573</sup> Queensland Government, Queensland Treasury, Queensland Government Consultation Report: Managing Residual Risks in Queensland, 2019.

<sup>574</sup> *Ibid*, p 6.

<sup>575</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 26(2)(a).

<sup>576</sup> *Ibid*, s 79(a); *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 43(2)(f), and “Preparation of rehabilitation plans guideline for mining and prospecting projects 2020” (Vic) pp 5 & 10, see Figure 1, step 9.

<sup>577</sup> Ministerial Guidelines for Assessment of Environmental Effects 2006 (Vic) pp 16-17, “relevant environmental effects”.

<sup>578</sup> *Ibid*, p 18.

By contrast, Victoria and Western Australia have developed resource tenure systems that by clear statutory design (Victoria) or by prevalent practice (Western Australia) lead to the grant of the resource tenure before an application is made for approval of a detailed mining proposal and closure plan (work and rehabilitation plan in Victoria). In both States, the resource tenement application must provide some information about the mineral resource and the proposed program of work, and there is the statutory capacity for both States to issue the resource tenement with general conditions relating to rehabilitation. The key difference between these two States is that Victoria's regime for work and rehabilitation plan approval is provided in detailed legislation, including a licensee's statutory duty of consultation and potential for an independent panel investigation, while Western Australia's regime is described by statutory guidelines of dubious legal effect that give control of community consultation to the mining lease holder subject only to the bureaucratic oversight of DMIRS (the mining agency). In Victoria, the mining licensee must rehabilitate the land in accordance with the approved plan, whereas in Western Australia there is the potential to make compliance with an approved mine closure plan a condition of the mining lease.

Both States may trigger EIA of the mining (work) proposal and closure (rehabilitation) plan, with Western Australia's legislation providing greater guidance for an independent assessment by the Environmental Protection Authority informing a Ministerial regulatory decision that prevails over the mining lease, while Victoria's EES process appoints an inquiry and advisory committee that reports to the Minister for Planning who gives an advisory recommendation to the Department Head who approves the work and rehabilitation plan.

In each State, the *Native Title Act 1993* (Cth) operates to secure rights of negotiation and comment for affected Indigenous peoples; rights which seem to be more clearly spelled out in Queensland and Victorian legislation than in Western Australia.

A potentially important aspect of community consultation is whether there is community understanding and acceptance of post-mine closure residual risks. The analysis of each State's approach to this question turns, in part, on the breadth of the definition of 'residual risks' and on how that may be distinguished from a more general right of community consultation on the environmental effects of a proposed mining project and its mine closure plan. In Victoria and Western Australia, there are references to community or (in WA) stakeholder consultation on residual risks in the rehabilitation and mine closure planning process. Again, this is provided by statutory guideline only in Western Australia and by legislation in Victoria. In Western Australia, the Mine Closure Plan Guidance, a non-statutory instrument, recommends to leaseholders that any residual liabilities relating to agreed land use are identified and agreed to by the key stakeholders in preparing the MCP. There is no suggestion as to how this is legally recorded. In Victoria, a mining licensee applying for approval of a rehabilitation plan is required by regulation to do a residual risk assessment for land that will be rehabilitated, though this is subject only to the general statutory duty of community consultation rather than any specific process of consultation that would suggest an element of agreement unless the licensee needs the consent of the landholder and is liable to pay compensation. In contrast, the Queensland legislation applies a narrower definition or perspective on residual risk, specifically addressing the question at the stage of an application to surrender an environmental authority.

In Victoria alone is there consultation with local government and the landowner on the amount of a financial security for a mining licence covering private land, which will be largely due to the continuing prevalence of the security bond system. In Queensland and Western Australia, the level of financial security is determined by Government in consultation with only the resource tenure holder.

#### 5.4.4 Future Research Points

Section 5.4 has reviewed community engagement rights at the pre-mine operation stage of decision-making in three respects; rights to information and comment, rights to comment and negotiate (particularly for Traditional Owners), and acceptance of residual risk. A separate research question is posed at 5.4.2 in respect of the Traditional Owners' rights to comment and negotiate.

While each jurisdiction acknowledges the importance of community consultation and the recognition of residual risks, the legal rights and institutional structures for addressing these central issues in mine closure planning and rehabilitation vary significantly between the three jurisdictions. A comparison of the different approaches raises the following research issues.

- Should community consultation on mine closure planning occur at the same time as consideration of the grant of resource tenure or at a separate post-grant process considering a detailed mining proposal / work plan and mine closure plan? What is the appropriate form of community consultation on the level and form of financial assurance of rehabilitation obligations?
- What should be the legal rights for community and stakeholder participation in that process; is it enough to rely on a tenure holder's duty of community consultation and the regulatory agency's review or should there be an independent expert institution (e.g. Warden's Court / Land Court / ad hoc inquiry panel) to hear and determine objections to the mining proposal and closure / rehabilitation plan?
- Is it appropriate and feasible at this pre-mine operation stage to address the questions of post-mine rehabilitation residual risks and to ascertain or determine some level of community acceptance of post-mine land uses and residual risks?
- What is the appropriate form of legal instrument to record legally binding obligations of the mining proposal and closure plan and of community acceptance of residual risk; is it sufficient simply to have compensation agreements with private landholders directly affected, or is desirable and feasible to have a community agreement on the residual risks, perhaps recorded between the proponent, state authorities and local government?
- What is the appropriate role of environmental impact assessment in facilitating community consultation on mine closure planning and rehabilitation, especially where there are broad questions of public interest?

## 5.5 Conclusion and Summary of Comparative Analysis

This chapter has compared the law and policy of Western Australia, Queensland and Victoria on three important aspects of mine rehabilitation and closure regulation in the pre-mine operation stage:

- Presenting a mine rehabilitation and closure plan for approval:
- Providing financial security for fulfilment of the mine rehabilitation and closure plan; and
- Ensuring community engagement rights within those two processes, especially the mine rehabilitation and closure planning.

All three States require a rehabilitation and closure plan to be presented and approved before mining operations can begin, but there are significant differences in the law and policy means for regulating those requirements. Queensland spells out the procedures and community consultation rights in detailed legislation (statute and regulations, as well as guidelines) that require approval of the Progressive Rehabilitation and Closure Plan and Schedule as part of the EA administered by the DES under the EP Act

before the resource tenure may be issued. Western Australia and Victoria require the rehabilitation and closure plan to be approved, often with environmental impact assessment, after the resource tenure is issued and before work begins, but differ greatly in the level of legislative definition in the requisite procedures and the ultimate legal effect given to the resultant rehabilitation and closure plan. The Western Australian regime, being defined by 'statutory guidelines', lacks enforceability and, perhaps, legal credibility. There is, arguably, an additional source of legal credibility in the Queensland system in that the rehabilitation and closure plan is incorporated into the EA administered by the DES.

The three States also differ on the financial security provisioning. While all three have a history of the inadequate use of bonds to cover the costs of rehabilitation if the resource tenure holder fails to fulfil its commitments, Western Australia and Queensland have developed systems of pooled rehabilitation funds composed of annual contributions based on estimated rehabilitation liabilities. Both retain bonds or financial assurances for high-risk mines, with the Queensland system again being the more sophisticated. Victoria retains only a reformed bonds system, with the exception that the Latrobe Valley coal mines are subject to additional levies for mine stability and the contribution to the Declared Mine Fund recently created to meet the additional costs of the enhanced regional rehabilitation strategy. Queensland has also recently created a 'residual risks fund' to pay for estimated additional public costs that may arise after relinquishment, which is discussed further in chapter 6.

All three States define rights and procedures for community consultation on rehabilitation and mine closure planning, and much less so on financial security. Again, the detailed legislative provisions of Queensland's EP Act integrate with the procedures of the MR Act to secure robust opportunities for community engagement. Neither the resource tenure nor the EA (incorporating the progressive rehabilitation and closure plan) may be granted until there has been a full community consultation process that involves effective notice, opportunities to make submissions, rights to object to draft decisions and have the objections to both instruments determined simultaneously and independently in Land Court proceedings that lead to public reasoned recommendations to the respective decision-makers, who must consider them. Victoria and Western Australia provide less secure rights of community engagement that are administered primarily through the mining legislation (unless environmental impact assessment is required), with the Western Australian regime being considerably weaker because almost the entire process is defined by statutory guidelines of dubious legal effect that relegate community engagement to lease holder responsibility with merely bureaucratic oversight.

A further factor in the transparency of the rehabilitation and closure plan process is what happens to the approved plan. In Western Australia, an MCP is published in the DMIRS Minedex website that is generally accessible to the public, with exemptions from publication for commercially confidential material. In Queensland, EAs and the progressive rehabilitation and closure plans are publicly available on a public register established under the EP Act. Victoria similarly maintains a mining register on which are recorded the basic details of licences, approved work plans and rehabilitation bonds, but not rehabilitation plans. Full copies of plans cannot be viewed or downloaded. Victoria's publication of EES and mining licence documents currently do not allow for especially easy access as there is no centralised database.

Finally, there is a gap in the explicit legislative framework for repurposing of mining assets in the transition to closure and tenure relinquishment. For example, the Victorian provisions use only the language of land rehabilitation whereas the Queensland provisions contemplate outcomes that are consistent with land use planning schemes, which arguably provide more legal room for repurposing solutions. However, the legislation and guidelines are generally quiet on the terms for repurposing, perhaps because those ideas have emerged more lately in the mine closure conversation and are acted on more in the latter stages of operations, closure and rehabilitation.

## 5.5 Future Research Point

As explained in 1.2.5 above, the core meaning given to the term ‘repurposing’ is the adaptation of the concept of closure to include repurposing of mining assets to future non-mining uses instead of their removal and the rehabilitation of the mined area. However, the repurposing of mine assets or mined land forms may be presented as a part of rehabilitation.

There is a gap in the explicit legislative framework for repurposing of mining assets in the transition to closure and tenure relinquishment. For example, the Victorian provisions use only the language of land rehabilitation whereas the Queensland provisions contemplate outcomes that are consistent with land use planning schemes, which arguably provide more legal room for repurposing solutions. However, the legislation and guidelines are generally quiet on the terms for repurposing, perhaps because those ideas have emerged more lately in the mine closure conversation and are acted on more in the latter stages of operations, closure and rehabilitation. Various specific questions arise.

- What would repurposing provisions look like?
- What would they require to be included in the rehabilitation plan?
- How would the residual risks of repurposed assets be addressed?
- What would they require in terms of community engagement to identify the appropriate repurposing / future land use options?
- How would the repurposing process interact with land use planning laws? For example, would there be an expectation that the mining operator should ensure appropriate land use zoning for the location of the repurposed asset while the new asset owner would be responsible for obtaining any authorisations to adapt and use the asset?

# 6 During mine operation

## 6.1 Overview

This chapter considers ongoing obligations, rights and duties of government, mine operators and the community, relevant to mine closure, while the mine is in operation. It does this by considering the following issues:

- Continual transparency requirements relevant to updated closure planning and implementation progress;
  - Updating plans for approval;
  - Implementing updated plans;
- Continual community engagement and community rights including local government;
  - Community rights to information;
  - Community rights to comment and negotiate;
- Clear process and criteria for determining relinquishment and any steps being taken towards evolving and clarifying that process;
  - Facilitating the fulfilment of industry duties and community rights;

- Overseeing closure plan updates regarding the relinquishment process; and
- Form of governmental decisions to certify relinquishment.

Amendments to mine closure plans are usually made on an as-needed basis (Western Australia is currently amending its requirement for three yearly amendments to an as-needed basis). As the mine begins and progresses through its operation, new information often comes to light and expectations surrounding closure and rehabilitation evolve, often demanding significant and continual plan adaptation. The mine closure plan amendment process is usually divided into substantial and minor amendments. Minor amendments can be routinely approved by the relevant government body and major amendments usually follow a compressed version of the initial approvals process. The element that is usually lost in this shortened version of the process is the opportunity for thorough community consultation.

Achieving successful relinquishment of a mining tenement remains the exception rather than the rule across Australia. Relinquishment requirements are usually negotiated on a site-by-site basis and often require extensive scientific testing to obtain sufficient certainty that rehabilitation metrics have been successfully and sustainably met.

After each substantial heading and at the conclusion of this chapter, we conduct a comparative analysis drawing out some key similarities and differences between the jurisdictions.

## 6.2 Transparent closure planning and implementation

### 6.2.1 Updating approval

#### 6.2.1.1 Western Australia

Mine closure plans are required to be regularly updated in Western Australia. It is a condition of the mining lease that mine closure plans continue to be reviewed and that written approval for the reviewed plan is obtained from a prescribed official.<sup>579</sup> The mining lease holder is responsible for instigating a review every three years after the grant of the mining lease issued by the traditional pathway or every three years following the first mining proposal approval for a lease issued by the deferred proposal pathway, unless some other requirement is approved by a mining registrar or other prescribed official.<sup>580</sup> Further, any condition relating to the prevention or reduction of injury to land may be imposed or cancelled by the Minister at their discretion, without any statutory process prescribed.<sup>581</sup> As discussed above at 5.2.1.4, proposed streamlining reform will abolish the three-yearly review requirement.

#### 6.2.1.2 Queensland

Once a PRC Plan has been approved, there remains flexibility and potential for amendment. Amendments can either be required by legislation due to changing circumstances, or amendments to the PRC Plan schedule can be instigated by either the PRC Plan holder or a government authority.<sup>582</sup>

- The administering authority may unilaterally amend an environmental authority (EA) or PRC Plan schedule in various circumstances, including to correct clerical errors, reflect new standard conditions, and to address the particular circumstances concerning the EA or schedule (such as, the issue of instrument on the basis of false information, a change of holder or contravention of the Act).<sup>583</sup>

<sup>579</sup> *Mining Act 1978* (WA) s 82(1)(ga).

<sup>580</sup> *Ibid*, s 84AA. The traditional and deferred proposal pathways are defined in section 5.2.1.1.

<sup>581</sup> *Ibid*, s 84.

<sup>582</sup> *Environmental Protection Act 1994* (Qld) Parts 6 & 7.

<sup>583</sup> *Ibid*, Part 6, division 1. The Resources Minister has a similar power under the *Mineral Resources Act 1989* (Qld) s 276C.

- At any point during operation the holder of the EA or PRC Plan schedule may apply to the administering authority to amend their authority or PRC Plan schedule.<sup>584</sup> The schedule includes the identification of any post-operation land uses and the non-use management areas, as well as setting out the timeframes for each phase of closure and rehabilitation.<sup>585</sup> It will also contain any conditions that were imposed by the administering authority, and to contravene a condition is an offence.<sup>586</sup>
- An application can be for a minor or a major amendment as defined by section 223 of the EP Act:
  - A minor amendment includes an amendment that does not change a post-mining land use or non-use management area, nor the way a post-mining land use will be achieved,<sup>587</sup> and does not affect a rehabilitation or management milestone by more than 5 years.<sup>588</sup>
  - A major amendment is any amendment which is not a minor amendment.<sup>589</sup>
  - Partial surrender of an EA, amalgamated amendments sought by multiple EAs, and transfer of an EA are excluded from the above amendment regulations.<sup>590</sup>
- The EP Act provides specific requirements for amendments of an EA or PRC plan schedule or both.<sup>591</sup>

### 6.2.1.3 Victoria

Victoria follows a similar method to Queensland, whereby once a work and rehabilitation plan has been approved, there is no requirement to amend or update it regularly. However, while the option to amend or update the work or rehabilitation plan is largely proponent-driven, it is also open to the Department Head to direct the licensee to lodge a variation of a work plan.<sup>592</sup>

- Most amendments are initiated by the licence holder to enhance the long-term viability of the project due to a change in situational factors.<sup>593</sup> The licence holder must submit an application for a variation to the work plan or rehabilitation plan with ERR.<sup>594</sup> If the revised plan significantly varies the scale or effect of the project's impacts, it may need to be referred to the Minister who will then decide whether an updated or new EES is needed.<sup>595</sup>
- Variations may also be required to ensure the project plans continue to comply with regulatory changes.<sup>596</sup>
- The MRSD Act also allows the Minister to unilaterally vary a licence if it is deemed necessary to limit one of the environmental, safety, or community risks set out in section 34.<sup>597</sup>
- When applying for a variation of a work plan, the proponent must include information on any new or changed hazards which might increase the potential impact on the Risk Factors, as well as whether the variation will change any rehabilitation areas.<sup>598</sup> This could trigger the requirement for an

<sup>584</sup> *Environmental Protection Act 1994* (Qld) s 224.

<sup>585</sup> *Ibid*, s 126D.

<sup>586</sup> *Ibid*, s 21A & 435A.

<sup>587</sup> *Ibid*, s 223.

<sup>588</sup> *Ibid*, s 223.

<sup>589</sup> *Ibid*, s 223.

<sup>590</sup> *Ibid*, pt 7.

<sup>591</sup> *Ibid*, s 226AA – 226B.

<sup>592</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) ss 41 and 41AA.

<sup>593</sup> Preparation of rehabilitation plans guideline for mining and prospecting projects 2020 (Vic) p 10.

<sup>594</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 41(2).

<sup>595</sup> *Ibid*.

<sup>596</sup> *Ibid*.

<sup>597</sup> *Ibid*, s 34.

<sup>598</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 48.

updated rehabilitation plan. The variation must also account for any change to community consultation and any additional consultation that will be carried out.<sup>599</sup>

Unless a further or new EES is required, there will be no ability for the community to make a submission on the proposed variation (except in the case of declared mine land).<sup>600</sup>

The *Climate Change Act 2017* (Vic) (CC Act) has affected the implementation and updating of Victorian mine licences and work plans. It is another example of the co-regulation of mine closure and the intersections with areas of law which are not solely mining related. The CC Act sets a zero-emissions target of 2050;<sup>601</sup> in order to meet that requirement, the Minister will necessarily have to reconsider existing mine licence and closure conditions. The CC Act also introduces new policy objectives and guiding principles which must be considered in Government decision making, which necessarily includes mine licence and work plan applications and amendments. This has particular implications for the Latrobe Valley mines as they are a substantial source of emissions, and the role of the CC Act is discussed in the Latrobe Valley case study.

#### 6.2.1.4 Comparative Analysis of Updating Plans

Both Queensland and Victoria provide clear statutory authority for the government agency to instigate a unilateral amendment of rehabilitation and closure plans. Western Australia does not because it presently provides for mandatory three-year updates of mine closure plans.

The Western Australian Minister has a broad discretion to amend or cancel a lease condition for preventing or reducing injury to land, which appears to be the sole statutory basis for giving legal effect to a varied mine closure plan, though it does not create a clear authority for varying the process of three-yearly updates. Western Australia's present statutory requirement for three yearly updates is proposed to be repealed by an amending Bill tabled in the WA Parliament in October 2021.

Queensland's process of amending an EA and PRC plan and schedule is spelled out in detail in the legislation, with distinct procedures for major and minor amendments. The major amendment process incorporates the essential elements of the original approval process.

Victoria's process for work plan variation incorporates the consideration of change to the rehabilitation plan. If the proposed plan significantly varies the scale or effect of the project's impacts, the Department Head may refer the proposed variation to the Minister for determination of whether an EES is required. The Climate Change Act 2017 is also driving the process of updating mine rehabilitation plans, particularly of the Latrobe Valley coal mines.

### 6.2.2 Implementation of rehabilitation and closure plans

The primary concern of this section 6.2.2 is the key mechanisms for ensuring compliance with rehabilitation and closure plans. The section considers the means for mandating execution of the plans, monitoring their implementation and reporting on those outcomes.

#### 6.2.2.1 Mandating Execution

##### Western Australia

The holder of a mining lease must continue to meet any conditions imposed on their lease, including to mitigate any injury to the land.<sup>602</sup> However, there is a noticeable lack of legislative requirement in Western Australia to undertake progressive rehabilitation or otherwise actively mitigate mining impacts during operations. Rather, these requirements are generally imposed on a site-by-site basis during the EPA approvals process. The Mining Act lease conditions, being the default reasonable conditions imposed on a

<sup>599</sup> Ibid.

<sup>600</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40A(7).

<sup>601</sup> *Climate Change Act 2017* (Vic) s 6.

<sup>602</sup> *Mining Act 1978* (WA) s 84.

mining lease, require that the conditions embody the purpose of preventing or reducing, or making good, injury to land.<sup>603</sup> No definition for ‘reasonable condition’ is provided, making this a relatively weak requirement depending on the interaction between DMIRS and the miner on what is and isn’t possible.<sup>604</sup>

The Statutory Guidelines for Mine Closure Plans purport to prescribe the form and content for a Mine Closure Plan (MCP), but the Mining Act confers no binding legal effect on the Guidelines. In any case, the Guidelines express no substantive goal or premise for the content of an MCP or its implementation. The Mine Closure Plan Guidance, a secondary non-statutory document, declares that it gives assistance to proponents in preparing MCPs<sup>605</sup> and clearly has no legal force. Nevertheless, it is the only regulatory document to provide information on progressive rehabilitation. It declares DMIRS’s rehabilitation and closure objective to make the rehabilitated land safe, stable, non-polluting and capable of sustaining an agreed post mine land use and states that progressive rehabilitation is a ‘key component’ of proper mine closure.<sup>606</sup> The Guidance sets a clear tone for what will be considered best practice, declaring that

*“[c]ompliance with closure conditions is an unconditional requirement for the Government’s sign off prior to closure completion. At closure, this tool can be used as a checklist to demonstrate that all conditions, commitments and obligations have been met”.*<sup>607</sup>

As explained at 5.4.3.1, there is no statutory effect given to the approval of an MCP, yet DMIRS declared in November 2021 that a standard condition to be imposed on tenements is to manage mine closure in accordance with an approved MCP. Non-compliance with a lease condition renders the lessee liable to forfeiture proceedings before the Warden, though the Minister may instead impose a penalty not exceeding \$50,000.

### Queensland

It is a condition of a PRC Plan schedule that the holder must comply with a requirement stated in an Environmental Authority (EA) and comply with the rehabilitation and management milestones stated in the schedule by their due dates.<sup>608</sup> It may also be a condition of an EA or of a PRC Plan schedule that the holder gives the administering authority a statement of compliance relating to a relevant activity.<sup>609</sup> In the event of an alleged contravention of the EP Act, the administering authority may accept an enforceable undertaking to secure compliance with the Act and enhance protection of the environment, which precludes proceedings for an offence.<sup>610</sup>

The EP Act also mandates compliance with an EA and PRC plan schedule by the imposition of criminal sanctions. It is an offence to breach a condition of an EA<sup>611</sup> and the EA holder is responsible for ensuring that the EA conditions are complied with.<sup>612</sup> Further, the holder of an EA issued for site specific mining activities must not carry out or allow an environmentally relevant activity under the EA unless there is a PRC plan schedule for the activity.<sup>613</sup> It is an offence to contravene a condition of a PRC plan schedule and the holder of the PRC plan schedule is responsible for ensuring that everyone acting under the schedule complies with the schedule conditions.<sup>614</sup> The maximum penalty for contravening a PRC plan schedule condition is 4,500

<sup>603</sup> Ibid, s 84.

<sup>604</sup> Ibid, s 84.

<sup>605</sup> *Mine Closure Plan Guidance* (WA) (2020) 5.

<sup>606</sup> Ibid, 5 and 17.

<sup>607</sup> Ibid, 7.

<sup>608</sup> *Environmental Protection Act 1994* (Qld) s 206A.

<sup>609</sup> Ibid, ss 206A, 207(1)(b) and 208.

<sup>610</sup> Ibid, s 507-508.

<sup>611</sup> Ibid, s 435A.

<sup>612</sup> Ibid, s 431.

<sup>613</sup> Ibid, s 431A

<sup>614</sup> Ibid, ss 431B and 431C.

penalty units; approximately \$620,000.<sup>615</sup> The penalty is higher (6,250 penalty units) for a wilful contravention. Further, if the Court finds that an EA holder has caused environmental harm by a contravention of the Act that constitutes an offence and the administering authority has incurred costs in responding to that harm, the Court may order to EA holder to pay those costs.<sup>616</sup>

## Victoria

The MRSD Act employs a range of civil and criminal enforcement measures to secure compliance with a rehabilitation plan.

First, the MRSD Act imposes two distinctive duties relating to rehabilitation:

1. A mining licence holder must rehabilitate land in accordance with an approved rehabilitation plan (which is required as part of the work plan).<sup>617</sup>
2. A mining licence holder is subject to a specific progressive rehabilitation obligation that applies independently of individual rehabilitation plans,<sup>618</sup> which obliges the licence holder to rehabilitate the land in the course of doing work and aim to complete the rehabilitation before the mining licence (or a renewed licence) expires or otherwise ceases to apply.<sup>619</sup> If that is not possible, the licence holder must complete the rehabilitation as quickly as possible.<sup>620</sup>

One of the consequences of this second duty is that, once a licence expires for a non-declared mine, there is no longer a mechanism to update a work or rehabilitation plan, even if land use expectations shift. Whilst any rehabilitation works are occurring, the licence holder must maintain employment of a manager for the site, and non-compliance with this requirement is an offence.<sup>621</sup>

However, non-compliance with either of the two stated rehabilitation duties is not, of itself, an offence. Rather, the MRSD Act establishes two compliance pathways if the Minister believes that the licensee is not fulfilling these rehabilitation duties. The first is an 'enforceable undertaking'.<sup>622</sup> If the Minister believes that the licensee has not complied with the Act or regulations, or a licence condition or a work plan condition, then the Minister may enter an enforceable undertaking with the licensee and it is an offence to contravene such an undertaking, with a maximum penalty for corporations of 2,500 penalty units, approximately \$454,350.

Alternatively, the Minister may issue a remedial notice on similar grounds, including non-compliance with a declared mine rehabilitation plan.<sup>623</sup> Non-compliance with the notice is an offence with a similar level of penalty and the potential for the court to order compliance with the notice. The Minister may also apply for a Supreme Court injunction to compel compliance with, or restrain contravention of, the notice, which prevents a merits review application. The Minister may also take action to fulfil a court order or injunction. The issue of a notice is subject to merits review in the Victorian Civil and Administrative Tribunal (VCAT).

This two-step process allows for significant discretion in the enforcement of non-compliance with mine rehabilitation requirements in Victoria.

In addition, failure to complete rehabilitation under an approved rehabilitation plan could also lead to loss of (whole or part of) the rehabilitation bond. It could also jeopardise the ability to surrender the licence and

<sup>615</sup> Ibid, s 431B; *Penalties and Sentences (Penalty Unit Value) Amendment Regulation 2021* (Qld), which set a penalty unit value of \$137.85.

<sup>616</sup> *Environmental Protection Act 1994* (Qld) s 501.

<sup>617</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 78.

<sup>618</sup> Ibid, s 81.

<sup>619</sup> Ibid, s 81(1).

<sup>620</sup> Ibid, s 81(2).

<sup>621</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 81(3).

<sup>622</sup> Ibid, ss 107-108.

<sup>623</sup> Ibid, ss 110-110AB.

achieve relinquishment. Further, the landowner may request that the licensee enters a written agreement as to the rehabilitation plan, which would create a private contractual duty to fulfil the rehabilitation plan.<sup>624</sup> It is also noted that the Department Head has power to direct the licensee to lodge a variation to a work plan which could include a variation to a rehabilitation plan.<sup>625</sup>

### Comparative Analysis of Mandating Execution of Rehabilitation and Closure Plans

Here again there are significant differences between Western Australia and the other two States.

In Western Australia, neither the Mining Act nor the Statutory Guideline for Mine Closure Plans confers any binding legal effect on an approved MCP. The non-statutory Mine Closure Plan Guidance assists lease holders to prepare MCPs and declares that compliance with the closure conditions is a requirement for the Government's certification that closure is completed. A lease condition may be added requiring compliance with an approved MCP, which would render the lessee subject to the relatively modest regime of lease forfeiture or a modest pecuniary penalty if the condition is unfulfilled. The only potential sanction here is the financial cost of the Mining Rehabilitation Fund annual levy, but the real effect of that requires further research.

The contrast with the law of Queensland is stark. The EP Act provides that it is a condition of the PRC plan schedule that the holder must comply with the milestones stated in the schedule by their due dates, and the holder may be called on to provide a statement of compliance. Further there are very significant criminal offence sanctions for contravening a condition of a PRC plan schedule, as well as the capacity of a court to order the EA holder to pay the costs of the administering authority in responding to any environmental harm caused by the contravention. The administering agency may also choose to enter an enforceable undertaking instead of pursuing criminal offence proceedings.

The Victorian legislation utilises broader duties to rehabilitate land in accordance with an approved rehabilitation plan and a separate duty to achieve progressive rehabilitation. Enforcing a plan may be problematic if the language is imprecise. Before criminal sanctions will apply, the Minister and the agency have the options of deploying an enforceable undertaking, or the issue of remedial notices which may be appealed to VCAT. Non-compliance with an enforceable undertaking or a notice is a criminal offence. The Victorian criminal sanctions are for lesser amounts than Queensland, though they are far more substantial than the pecuniary penalty that may be applied under the Western Australian lease forfeiture protocol. However, it is unclear whether the Victorian enforcement measures are applicable to non-declared mines, which may be subject only to the sanction of loss of the rehabilitation bond.

#### 6.2.2.2 Monitoring

##### Western Australia

Ongoing monitoring is a well-established component of mine closure in Western Australia but monitoring in preparation for closure during operations is less clear. Mine closure plans are required to provide baseline data that can be used as a comparison during monitoring.<sup>626</sup> They must also include a monitoring framework and methodology for tracking the progress of closure implementation strategies, aimed at assessing whether closure outcomes are likely to be met.<sup>627</sup> Small mining operations only need to include a description of the type and frequency of rehabilitation monitoring to be undertaken.<sup>628</sup> Notably, there is no express requirement to undertake any of this monitoring during mine operation but it is expected that monitoring will be undertaken throughout the operation and reported to DMIRS in the annual environmental reports, discussed below.

<sup>624</sup> Ibid, s 78(4).

<sup>625</sup> Ibid, s 41AA.

<sup>626</sup> *Mine Closure Plan Guidance (WA)* (2020) p 5.

<sup>627</sup> Ibid.

<sup>628</sup> Ibid.

The CEO of the EPA (or their delegate) may monitor the implementation of a proposal in order to determine whether conditions imposed on the mining lease are being complied with.<sup>629</sup>

Once again however, the Guidance provides additional, non-binding detail. It suggests that ongoing monitoring should be undertaken during mine operation in order to adapt mine closure plans as needed, but still focuses on monitoring as a post-operation part of closure.<sup>630</sup>

### Queensland

The PRC plan schedule is required to be audited under the EP Act, and a report issued on the findings of that audit.<sup>631</sup> The EP Act establishes that there are to be designated rehabilitation auditors.<sup>632</sup> It is also within the prerogative of the Department of Environment and Science to set up monitoring equipment at the mine site, or require that the holder of the mining lease conduct their own monitoring, and it is an offence to interfere with that monitoring equipment.<sup>633</sup> Government authorities can be granted authorisation to enter the site to conduct monitoring activity.<sup>634</sup> It is the role of the Rehabilitation Commissioner to monitor and report to the Minister on rehabilitation performance both during and post-operation.<sup>635</sup> The scope of monitoring that can be undertaken is set out in the *Environmental Protection Regulation 2019* and includes measuring levels of contaminants and the success of rehabilitation or mitigation measures.<sup>636</sup>

### Victoria

Monitoring compliance with mining licence conditions and work plans is the role of ERR. Mining proponents must include in their work plans how they will undertake monitoring to allow for regular reporting (discussed below) and informed decision-making.<sup>637</sup> Similarly, an EES must also specify what monitoring operation will be undertaken and how data will be managed effectively.<sup>638</sup> Coal mine operators must also specify monitoring procedures in their fire risk management plans.<sup>639</sup> Declared mines, such as in the Latrobe Valley, must have a plan for monitoring the stability and groundwater management of the mine site.<sup>640</sup>

The MRSD Act sets out what monitoring will be undertaken by the Mine Land Rehabilitation Authority (in respect of the Latrobe Valley mines). The MLRA is responsible for monitoring and evaluating the implementation of regional rehabilitation strategies being implemented by the State government, as well as site-specific rehabilitation planning activities, as well as advise the Minister on future monitoring programs.<sup>641</sup> Currently, the only regional rehabilitation strategy is for the Latrobe Valley region.

#### 6.2.2.3 Reporting, rehabilitation progress reports

### Western Australia

The Western Australian regulatory regime utilises a network of reporting requirements relevant to mine closure. Mining lease holders must provide annual environmental reports through the DMIRS website, and those reports are then publicly available.<sup>642</sup> If the EPA has imposed conditions on a proposal after conducting an environmental impact assessment, it is a duty of the proponent to report to the CEO about the

<sup>629</sup> *Environmental Protection Act 1986* (WA) s 48.

<sup>630</sup> *Mine Closure Plan Guidance* (WA) (2020) p 10.

<sup>631</sup> *Environmental Protection Act 1994* (Qld) s 285.

<sup>632</sup> *Ibid*, s 288.

<sup>633</sup> *Ibid*, ss 126 & 444

<sup>634</sup> *Ibid*, s 458.

<sup>635</sup> *Ibid*, s 444I.

<sup>636</sup> *Environmental Protection Regulation 2019* (Qld) r 33.

<sup>637</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 45.

<sup>638</sup> *Ministerial Guidelines for Assessment of Environmental Effects 2006* (Vic) p 20.

<sup>639</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) sch 8.

<sup>640</sup> *Ibid*, sch 12.

<sup>641</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 84AL.

<sup>642</sup> *Annual Reports*, Department of Mines, Industry Regulation and Safety <<https://www.dmirs.wa.gov.au/content/annual-reports-0>>.

implementation of the proposal and compliance with any conditions.<sup>643</sup> However, these reports are only required if written notice is given to the proponent by the CEO.<sup>644</sup>

Reports, in the prescribed format of Form 5 as provided by DMIRS, are required within 60 days after each anniversary date of the commencement of the lease, which confirm compliance with the standard conditions imposed by the Mining Act.<sup>645</sup> Form 5 requires a description of mining activities undertaken and expenditure. DMIRS has recently introduced streamlining measures to its online environmental reporting system, used to efficiently receive and process information received from mine lease holders in meeting their compliance requirements.<sup>646</sup> These reports can remain confidential for a period of five years unless voluntarily made available, after which they are published unless the proponent successfully objects to their release, usually on commercial grounds.<sup>647</sup> A key change is that the system will only request reporting of instances where a condition has not been met, to avoid assessing compliance with each individual condition, but has tightened requirements to separately report and evaluate compliance with environmental and closure outcomes particularly.<sup>648</sup>

The main information submitted to DMIRS regarding mine rehabilitation is the assessment information that a mining authorisation (including a mining lease) holder must give to the Chief Executive Officer of DMIRS annually for the purpose of assessing the annual MRF levy.<sup>649</sup> That information is the total area of land within the area of the mining authorisation for each rehabilitation liability category. Rehabilitated land does not fall within any rehabilitation liability category, and neither does infrastructure used under a previous mining tenement but not under the current tenement, and so need not be reported.<sup>650</sup> The CEO may make available to the public any of this assessment information in the form and manner that the CEO considers appropriate.<sup>651</sup>

With the exception of the information reported to the EPA, it appears that the information reported under the Mining Act is not aimed at evaluating compliance with a mine closure plan.

## Queensland

There are ongoing reporting requirements under the MR Act for mining lease holders to ensure that they continue to meet the conditions of their lease through regular reporting back to the Rehabilitation Commissioner, as prescribed.<sup>652</sup> Akin to WA, reports detailing what mining activity has been undertaken must be filed annually within one month of the anniversary of the lease, but in Queensland these are only currently required for coal or oil shale mining.<sup>653</sup> There are no existing reporting requirements for mineral leases.<sup>654</sup> Queensland has also recently reformed their reporting requirements for coal mining.<sup>655</sup> The reform established that all mineral and coal annual reports will be confidential for five years, and will then be eligible for public release on an open online portal.<sup>656</sup>

<sup>643</sup> *Environmental Protection Act 1986* (WA) s 47.

<sup>644</sup> *Ibid*, s 47(2).

<sup>645</sup> *Mining Regulations 1981* (WA) r 32.

<sup>646</sup> Government of Western Australia, *Annual environmental reporting system changes*, Department of Mines, Industry Regulation and Safety (12 July 2021) <<http://www.dmp.wa.gov.au/News/Annual-environmental-reporting-29451.aspx>>.

<sup>647</sup> *Ibid*.

<sup>648</sup> *Mining Act 1978* (WA) s 82(e).

<sup>649</sup> *Mining Rehabilitation Fund Act 2012* (WA) s 15; *Mining Rehabilitation Fund Regulations 2013* (WA) r 5.

<sup>650</sup> *Mining Rehabilitation Fund Regulations 2013* (WA) rr 3 and 4 and Schedule 1.

<sup>651</sup> *Mining Rehabilitation Fund Act 2012* (WA) s 15(3).

<sup>652</sup> *Mineral Resources Act 1989* (Qld) s 315.

<sup>653</sup> *Mining Resources Regulation 2013* (Qld) 29A.

<sup>654</sup> *Mining Resources Regulation 2013* (Qld).

<sup>655</sup> Minerals and Coal Reporting Practice Direction, Department of Resources (June 2021) p 5.

<sup>656</sup> *Ibid*.

## Victoria

Licence holders must keep records of all activities undertaken under a mining licence.<sup>657</sup> Annual reports of expenditure and activities must be provided to ERR and contain the information prescribed by the regulations.<sup>658</sup> The Regulations also require rehabilitation progress reports to be provided on rehabilitation plan milestones and any monitoring activity on existing rehabilitation activity.<sup>659</sup> Declared mine sites must report every six months with more detailed proscribed information.<sup>660</sup>

### 6.2.2.4 Comparative analysis of closure plan implementation monitoring and reporting

Further to the comparative comments at section 6.2.1.4 about mandating the implementation of rehabilitation and closure plans, there are a broad range of protocols for monitoring of and reporting on mine closure and rehabilitation plans. With the exception of the Queensland statement of compliance with a PRC Plan schedule, it is difficult to assess whether the range of monitoring and reporting protocols is effective for incentivising and assessing compliance with a rehabilitation and closure plan. Further research is needed to ascertain the precise legal nature of the requirements, the transparency of the reporting, and the empirical data on the use of these important regulatory mechanisms. An important aspect of this research will be the significance for community engagement and transparency of the monitoring and reporting functions of the quasi-independent agencies of the Queensland Rehabilitation Commissioner and the Victorian Mine Land Rehabilitation Authority, for which there is no equivalent in Western Australia unless the EPA can perform something of this function.

#### 6.2 Future Research Point

It is difficult to assess whether the range of monitoring and reporting protocols is effective for incentivising and assessing compliance with a rehabilitation and closure plan. Future research is needed to ascertain the precise legal nature of the monitoring and reporting requirements, the transparency of the reporting, and the empirical data on the use of these important regulatory mechanisms. An important aspect of this research will be the significance for community engagement and transparency of the monitoring and reporting functions of the quasi-independent agencies of the Queensland Rehabilitation Commissioner and the Victorian Mine Land Rehabilitation Authority, for which there is no equivalent in Western Australia.

## 6.3 Community engagement including local government

### 6.3.1 Rights to information, comment and object re closure planning and implementation

#### 6.3.1.1 Western Australia

As considered above at 6.2.1.1, mine closure plans are required to be reviewed at least every three years. Statutory rights to inspect mine closure plans (MCPs) are limited to during the tenement application phase in the traditional pathway, and there is no ongoing right to information and comment if the mining proposal and closure plan are updated or conditions amended. As explained at 5.2.1, there are no statutory rights to consultation under the deferred proposal pathway, with stakeholder consultation being managed by the lease holder in accordance with an ongoing stakeholder engagement strategy presented in the initial MCP, as required under the MCP Guidelines. It would be an interesting research question to ascertain what provisions MCPs have made for ongoing stakeholder engagement about the regular three-year review of MCPs. If a proposed amendment to a mining proposal and mine closure plan could have a significant effect

<sup>657</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 52.

<sup>658</sup> *Ibid*, r 53.

<sup>659</sup> *Ibid*, Part 3, Div 7.

<sup>660</sup> *Ibid*, r 64.

on the environment, that could trigger the duty of the DMIRS Minister to refer the amendment proposal to the EPA, and the EPA process to decide whether to conduct an assessment, as well as any assessment, would put the matter on the public record and involve public consultation.<sup>661</sup>

Overall, however, there are minimal regulatory requirements for ongoing information to be provided by miners on progressive rehabilitation or mine closure planning and the public do not have a legislated avenue for obtaining information about activities taking place during mine operation.

### 6.3.1.2 Queensland

There are minimal ongoing rights to information after an environmental authority (EA) has been granted and PRC plan scheduled approved under the EP Act. A PRC plan schedule continues in force until the relevant EA is cancelled or surrendered, even if the related resource tenure is cancelled or expires.<sup>662</sup>

If an application is made to amend the EA or the PRC plan schedule, in general terms the information, notification and decision stages of the original application process will apply to a major amendment application but not for a minor amendment.<sup>663</sup> However, the notification stage does not apply if the proposed change to the EA does not increase the risk of environmental harm or the change to the schedule reduces the extent of a non-use management area or will cause no change to, or reduce, the impacts on the environmental values. If there is no notification stage, there will be no right to make submissions on the proposed change(s). If the administering authority has decided to approve the amendment application, it must issue the amended EA or PRC plan schedule to the applicant and include a copy of the amended EA or schedule in the relevant register.<sup>664</sup> Thus, there is no community right to information and comment where an EA or a PRC plan schedule is amended in a way that will not increase the risk of environmental harm. However, every amendment, major or minor, to those instruments must be entered on the public register maintained by the DES.<sup>665</sup>

Significantly, the administering authority may require an EA holder to give an annual return for a stated period. An annual return for a PRC plan schedule must state whether the holder has complied with schedule conditions and met rehabilitation and management milestones.<sup>666</sup> These annual reports must be uploaded to the public register.<sup>667</sup> It would be an interesting research question to ascertain how often the administering authority does require annual reports on PRC Plans and what those returns demonstrate about fulfilment of those plans.

### 6.3.1.3 Victoria

An application to vary a work plan (including the rehabilitation plan) must include information about changes relating to community consultation.<sup>668</sup> As noted above in 6.2.1.3, there is no opportunity for the community to make submissions by statutory process on an application to vary a work plan and rehabilitation plan unless an EES is required. In the case of declared mine land, the MLRA must give comments to the Minister on the community engagement plan included in the work plan in respect of the rehabilitation and may recommend changes to be made before the proposed variation is approved.<sup>669</sup> Thus, the community

<sup>661</sup> *Environmental Protection Act 1986* (WA) s 39.

<sup>662</sup> *Environmental Protection Act 1994* (Qld) s 202C.

<sup>663</sup> *Ibid*, ss 231 – 241. See explanation of these stages of the decision-making process at section 5.2.2.2.

<sup>664</sup> Under the *Environmental Protection Act 1994* (Qld) s 540(1)(aa) and (ab); see the DES administered searchable ‘public register’: <<https://apps.des.qld.gov.au/public-register/>>

<sup>665</sup> *Environmental Protection Act 1994* (Qld) s 242(1)(c).

<sup>666</sup> *Ibid*, ss 316IA and 316J.

<sup>667</sup> *Ibid*, s 540(1)(a)(x).

<sup>668</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) r 48(1)(g) and NB r 48(1)(a)(ii) requiring information about risks posed to any member of the public from the proposed variation of the work plan.

<sup>669</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 41(7)(a)(ii) and (b). And see s 41AE, by which an application to vary a work plan must be made if the mine is a declared mine.

consultation on the amended work plan and rehabilitation plan for a declared mine will depend on what the plan actually says about the implementation of the varied plan.

However, there are two key occasions when further information about mine site rehabilitation will be made publicly available.

- For declared mines, MLRA annual reports or investigation reports referred to the MLRA by the Minister will be published on the departmental website.<sup>670</sup> Prior to publishing such information the MLRA must consult with any relevant public sector body or declared mine licensee to confirm factual accuracy of the report.<sup>671</sup>
- Where a work plan is varied so significantly that additional public consultation is required by the Minister in the form of an additional or supplementary EES. An EES requires public notification.

In some circumstances, a mining licence condition may require certain information, particularly relating to offsite monitoring of potential impacts of mining operations, to be made publicly available. In addition, the approved community engagement plan under the work plan may require community consultation in specified situations. Section 39A of the MRSD Act establishes a statutory duty of the licensee to consult with the community throughout the period of the licence on the conduct of work, not only by sharing information about activities authorised by the licence that may affect the community but also giving the community an opportunity to express their views on those activities. The prescription of information required in work plans for community consultation re-enforces this duty.<sup>672</sup> Given that the rehabilitation plan is part of the work plan, it is likely that the duty of community consultation applies equally to the preparation and implementation of the rehabilitation plan and any changes to it. However, this is not as clear as it could be. The MRSD Act duty to make a rehabilitation plan specifically references consultation with the owner of private land (s 79(b)(ii)), though the statutory reference to the preparation of a work plan and the Regulations' prescription of information to be included in the work plans do refer to rehabilitation planning.<sup>673</sup>

Ultimately, an amended work plan must be registered on the mining register which will record the basic details of the work plan but not the full document or any amended rehabilitation plan.<sup>674</sup>

### 6.3.2 Rights to comment and negotiate – particularly for Traditional Owners

Across all jurisdictions, there is very minimal room for community groups, Traditional Owners or local governments to instigate any renegotiation or influence the terms of the mining lease in another way during operation. If the miner wishes to begin a new application or substantially amend an existing application, they may need to engage with relevant stakeholders as was outlined in chapter 5. The miner must also meet ongoing requirements imposed by planning, water and contamination legislation, though these do not provide a distinct avenue for comment or negotiation from community stakeholders (unless as a condition of the relevant approval). These issues can be particularly pertinent in the rehabilitation of mine site voids to pit lakes, which is being proposed in a number of locations across Australia. The expectations of community parties seems to be changing because of growing concerns about the risks of pit lakes, while miners had not initially needed to address the rehabilitation of mine voids in isolated areas. The Ensham Case Study accompanying this report reviews in detail the reformed Queensland legislation aimed at establishing standards for mine void rehabilitation, especially on flood plain areas. Rehabilitation of large mine voids into pit lakes is proceeding in the Latrobe Valley, as discussed in the Latrobe Valley Case Study. Further research

<sup>670</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) ss 84AZG & 84AZH.

<sup>671</sup> *Ibid*, s 84AZI.

<sup>672</sup> *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) reg 46 and 48.

<sup>673</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 40(3)(e); *Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019* (Vic) reg 43.

<sup>674</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 69(2)(a)(v).

is needed to ascertain the effects of the recent reforms, the growing understanding from embarking on mine void rehabilitation and how to accommodate the realistic and evolving expectations of all parties.

## 6.2 Future Research Point

The interaction between the rehabilitation of mine site voids to pit lakes and water law is a key part of creating viable closure plans across Australia. This includes the intersection with Native Title law and the impact of rehabilitating voids on traditional owners, as well as the intersection with pastoral regulation. How can these spheres of law be developed in a complementary way that allows for sustainable rehabilitation and accommodates an understanding of the realistic expectations of all parties over time interacting with the dynamic nature of the mining industry operating in an international market?

### 6.3.3 Comparative analysis of community engagement and transparency

Once again, there are significant similarities and differences between the three jurisdictions in how community engagement is continued as the mine begins and progresses through the operation phase. Queensland legislation requires further community consultation for major amendments to Environmental Authorities and PCR Plan schedules under the guidance of the DES. On the other hand, Western Australia and Victoria clearly delegate the task of community engagement and consultation on rehabilitation and closure planning to the resource tenure holder and do not require any statutory guided process unless there is a need for further environmental impact assessment.

However, there is a very important difference between how the how Western Australia and Victoria regulate the resource tenure holder's fulfilment of that role. Victoria's mining legislation spells out in some detail the statutory duty of consultation and the requirement for a community consultation plan (which requires government agency approval) to guide both the sharing of information with the community and the receipt of feedback from the community. However, these requirements relate most closely to the work plan and it is unclear just how much these requirements apply to a rehabilitation plan. In addition, the basic details of a work plan are entered on the mining register but a rehabilitation plan is not. The Western Australia process under Statutory Guidelines involves a 'strategy for ongoing engagement' with stakeholders that should receive DMIRs approval as part of the MCP but, as explained above, the only method for giving this non-statutory MCP any legal effect is to include a mining lease condition requiring that mine closure planning and mine operations be conducted in accordance with the MCP. Further research is required to ascertain how these elements of the Statutory Guideline have been implemented.

## 6.3 Future Research Point

The Queensland legislation creates a public statutory duty for the DES to conduct further community consultation on major amendments to Environmental Authorities and PCR Plan schedules. Victoria and Western Australia leave that further consultation to the resource tenure holder, though the Victorian MRSD Act imposes a broad statutory duty of consultation while Western Australia relies on the guidelines to direct the lease holder to present a strategy for ongoing engagement with stakeholders in the mine closure plan. Future research could seek to ascertain how effective each of these different mechanisms are in engendering ongoing community engagement and the quality and characteristics of the consultation undertaken.

## 6.4 Clear process and criteria for determining relinquishment

It is acknowledged across Australia that there is a need for greater clarity on the mining lease relinquishment process.<sup>675</sup> Very rarely has complete relinquishment been achieved in Victoria, Queensland and Western Australia, although there are examples of effective closure, including examples of long-lived large-scale mines successfully rehabilitating some areas, allowing for partial relinquishment back to the State. As discussed in Stage 1 at 1.1.8, the term relinquishment may be used interchangeably with surrender, including in regulatory guidance – both refer to the legal cessation of a mining lease and the rights afforded to the lease holder.<sup>676</sup> However, there is a key distinction that this Report makes to facilitate the discussion of formal process: whilst a lease is ‘surrendered’ at the impetus of the proponent, ‘relinquishment’ only occurs when the relevant government agency approves or agrees that final closure obligations and liabilities have ceased.

Across all three States, the relinquishment process is based on an application to surrender and an assessment of the site in accordance with the requirements set out in the mine closure plan (or rehabilitation and closure plan in Queensland and work and rehabilitation plan in Victoria) as approved upon grant of the lease and subsequently amended (if applicable) during mine operation.<sup>677</sup> There is no statutory procedural requirement for any of the States or the miners to engage in general community consultation in order to surrender or relinquish the lease beyond what was already undertaken in preparing the mine closure plan,<sup>678</sup> though Victoria does have a statutory consultation process with the landowner and local government before a rehabilitation bond may be returned to the miner.

### 6.4.1 Western Australia

There are many mines in WA nearing closure and miners are seeking certainty about the process of surrendering their mining tenure and determining questions of liability after relinquishment occurs.<sup>679</sup>

The surrender of a mining lease is the first step in the relinquishment process and is instigated by the lease holder and can be whole or partial.<sup>680</sup> The time of registration of surrender is equivalent to the time of lodging of the form of surrender, despite registration often taking time after lodgement.<sup>681</sup> Upon surrender, every right, title and interest that was held by the miner under that lease ceases.<sup>682</sup> After surrender, the lease holder continues to be liable for any outstanding money owed as part of the mining lease and must comply with any remaining obligations.<sup>683</sup> They also remain accountable for their obligations under the relevant contaminated sites and water legislation.

If an application for forfeiture has already been lodged at the time of a surrender application lodgement, then the forfeiture applicant will be given a 14-day period after the registration of the surrender during

<sup>675</sup> Tiemann, CD, McDonald, MC, Middle, G & Dixon, KW, 2019, 'Mine relinquishment policy in Australia', in AB Fourie & M Tibbett (eds), *Mine Closure 2019: Proceedings of the 13th International Conference on Mine Closure*, Australian Centre for Geomechanics, Perth, pp. 1451-1460, <[https://doi.org/10.36487/ACG\\_rep/1915\\_113\\_Tiemann](https://doi.org/10.36487/ACG_rep/1915_113_Tiemann)>; p 1451.

<sup>676</sup> *Ibid*, 1452.

<sup>677</sup> *Mineral Resources Act 1989* (Qld) ss 309 and 315B; *Mineral Resource Regulation 2013* (Qld) reg. 29C; Department of Mines, Industry Regulation and Safety, “Statutory Guidelines for Mine Closure Plans”, 2020, sections 6, 8 and 10.

<sup>678</sup> *Environmental Protection Act 1994* (Qld) ss 54 and 160; *Mining Act 1978* (WA) s 95, Department of Mines, Industry Regulation and Safety, “Statutory Guidelines for Mine Closure Plans”, 2020, sections 6, 8 and 10.

<sup>679</sup> ‘Mine rehab in WA is the pits: Inquiry finds few success stories’ Emma Young, *WA Today* (9 March 2018) <<https://www.watoday.com.au/national/western-australia/mine-rehab-in-wa-is-the-pits-inquiry-finds-few-success-stories-20180308-h0x7w9.html>>.

<sup>680</sup> *Mining Act 1978* (WA) s 95.

<sup>681</sup> *Ibid*.

<sup>682</sup> *Ibid*.

<sup>683</sup> *Ibid*.

which they have priority right of applying for any mining rights over the surrendered area.<sup>684</sup> The meaning of forfeiture is explained in Stage 1 at 1.3.2.

The surrender application is made using a designated Form 12.<sup>685</sup> This form is the instrument that effects surrender of the mining lease rights only and, whilst it requires details of the lease and lease holder, it does not require any further information.<sup>686</sup> Western Australia requires a final report to be submitted using the designated Form 5<sup>687</sup> which is primarily a report on expenditure for mining activities, but it also requires evidence of any expenditure on Aboriginal Heritage surveys.<sup>688</sup> At the end of the report, a summary of mining activities and Aboriginal Heritage surveys must be provided.<sup>689</sup> This final report, though it uses Form 5, is applied as the Mine Closure Completion Report.

An important point to re-emphasise here is that there are not currently any statutory criteria or procedures for returning mined land to the State or passing property rights to another land user. While existing surrender and expenditure reporting forms are used, the process for determining whether surrender (and, thus, relinquishment) can occur is dependent on the lease holder demonstrating to DMIRS that the criteria set out in the lease holder's approved mine closure plan have been met. The Mine Closure Completion Guideline (November 2021) provides further direction on the process that the leaseholder should follow before submitting a Closure Completion Report. Mine closure completion and relinquishment may be approached in stages, with the leaseholder demonstrating through a "mine closure completion report", in addition to the corporate endorsement:<sup>690</sup>

- that "appropriate engagement has been undertaken to determine the acceptability of rehabilitation to the underlying land users, land managers or other relevant stakeholders";
- how the post mining land uses have been achieved completion criteria of the MCP have been met and completion criteria achieved; and
- that post-closure residual risks have been identified and post-closure monitoring and maintenance activities have been addressed, including as to who will be responsible for their implementation.

The Chamber of Minerals and Energy has provided a submission to DMIRS on the Draft Closure Completion Guideline emphasising that they would prefer the Guideline to take a more whole-of-government approach that provides greater clarity on every step of the pathway to achieving relinquishment rather than limiting it to the Mining Act.<sup>691</sup> The Chamber also said that the requirement for stakeholder engagement is a risk to industry due to the potential for rapidly changing stakeholder expectations.<sup>692</sup> However, in the authors' view, in the absence of a statutory power for an authoritative relinquishment determination by government, it is infeasible to suggest that anything less than stakeholder and post-mine land user agreement on the satisfaction of the MCP completion criteria could be acceptable.

The obvious question requiring further research is what form of stakeholder engagement or agreement should be required for the exercise of a statutory relinquishment decision by government. The Victorian model (discussed below) may provide a useful insight with its requirement for landholder and local government consultation for mining on private land. A responsible public agency could fulfil an equivalent

<sup>684</sup> Ibid, s 97.

<sup>685</sup> Government of Western Australia, Department of Mines, Industry Regulation and Safety, Minerals & Mining, Mining Act forms <<https://www.dmp.wa.gov.au/Minerals-Mining-16304.aspx>>.

<sup>686</sup> Ibid.

<sup>687</sup> Above n 142.

<sup>688</sup> Ibid.

<sup>689</sup> Ibid.

<sup>690</sup> Government of Western Australian, Department of Mines, Industry Regulation and Safety, "Mine Closure Completion Guideline", November 2021, section 3, p 7.

<sup>691</sup> Ibid.

<sup>692</sup> Ibid.

role for public land. Further, if there is to be a transfer in liability, should there be either informed consent to the potential residual risk liabilities or a form of residual risk payment, as applies in Queensland. It is also important to note that forms for surrender applications and the final reports in both Queensland and Western Australia are protected by a 5-year minimum confidentiality period, resulting in delayed public notification and minimal opportunity for public comment.<sup>693</sup> This could seriously compromise a post-mine land user taking on the liabilities for residual risks.

#### 6.4.2 Queensland

Queensland's process of relinquishment is substantially more developed than Western Australia's. There are statutory application and reporting procedures for both partial and total surrender of a mining lease.<sup>694</sup> A mining lease holder may apply to surrender, with a surrender report, all or part of a mining lease before expiry of the term, which will not be effective until the holder has complied with any directions (including as to improvement restoration) and the Minister has consented. The application to surrender the mining lease is made using a designated Form MMOL-31.<sup>695</sup> It is similar to Western Australia's process in that it only requires permit holder details.<sup>696</sup> An application must also be made to the Department of Environment and Sciences to surrender the environmental authority (EA).<sup>697</sup> If a mine is put into care and maintenance, the authority holder notifies the Scheme Manager and the risks can be assessed moving forward.

The Minister may only consent if satisfied that the improvement restoration has been completed and any relevant EA under the EP Act has been cancelled or surrendered.<sup>698</sup> On termination, all lease markings must be removed and all mineral and property remaining on the land vests ownership in the State, though the miner may apply for permission to remove that mineral and property within 20 days of lease termination.<sup>699</sup>

The holder of an EA may apply, or be directed to apply, to surrender the whole or part of an EA.<sup>700</sup> The EP Act prescribes the surrender regime; particularly,

- the application content, including a final report on rehabilitation or, if a PRC plan Schedule applies, a compliance statement and a post-surrender management report;<sup>701</sup>
- the process, criteria and time limits for determining the surrender application;<sup>702</sup> and
- the CEO's authority to give a rehabilitation direction with notice of a refusal.

There are two additional elements in the EP Act that add certainty to the surrender regime.

- The authority holder may apply for 'progressive certification' of rehabilitation as it is achieved according to the requirements of the time, subject to the obligation to maintain the certified rehabilitation and the assurance of not being required to meet increased requirements.<sup>703</sup>

<sup>693</sup> Minerals and Coal Reporting Practice Direction, Department of Resources (June 2021) p 5; Government of Western Australia, *Annual environmental reporting system changes*, Department of Mines, Industry Regulation and Safety (12 July 2021) <<http://www.dmp.wa.gov.au/News/Annual-environmental-reporting-29451.aspx>>.

<sup>694</sup> *Mineral Resources Act 1989* (Qld) ss 309 and 315B.

<sup>695</sup> Queensland Government, *Forms for mining and resources*, Business Queensland <<https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/forms>>.

<sup>696</sup> *Ibid.*

<sup>697</sup> *Environmental Protection Act 1994* (Qld) s 262.

<sup>698</sup> *Mineral Resources Act 1989* (Qld) ss 309 and 315B; *Mineral Resource Regulation 2013* (Qld) reg. 29C.

<sup>699</sup> *Mineral Resources Act 1989* (Qld), ss 312 - 313.

<sup>700</sup> *Environmental Protection Act 1994* (Qld) ss 257-258 and 261.

<sup>701</sup> *Ibid.*, ss 262, 264, 264A.

<sup>702</sup> *Ibid.*, ss 265-270.

<sup>703</sup> *Ibid.*, Chapter 5, Part 6.

- The CEO of the DES may require a ‘residual risks’ payment to cover the ‘likely management costs’ to maintain rehabilitation measures or re-instate those that fail.<sup>704</sup>

This residual risk framework is in its infancy but has created some relevant changes for mine closure.<sup>705</sup> The Queensland Government issued an Interim Residual Risk Assessment Guideline in October 2020 but, as the title suggests, this was intended to provide direction before a more comprehensive policy is developed.<sup>706</sup> The Guideline sets out that residual risk assessments are to be conducted to determine whether a risk management plan needs to be incorporated as part of a PRC Plan.<sup>707</sup> The PRC Plan holder should provide a residual risk management plan for any residual risks identified throughout the risk assessment process, which accounts for managing the site after it has been surrendered.<sup>708</sup>

The recent residual risk framework amendment to the EP Act authorised the administering authority to require that residual risk payments be made by mining companies, seemingly for both rehabilitated land and land that has been categorised as a non-use management area – these payments can also be collected after the company has applied to surrender the mining lease.<sup>709</sup> The residual risk framework also established the residual risk payment as a condition that can be imposed upon the surrender of an environmental authority.<sup>710</sup> All residual risk payments go into the pooled fund created under the MERFP Act and are made available to the Scheme Manager for distribution.<sup>711</sup>

### 6.4.3 Victoria

Victoria’s system of surrender and relinquishment is well-codified and, for this reason, is more comparable to Queensland than Western Australia, though the surrender of a mining licence is far less formal than for a mining lease in Queensland. A surrender request must be emailed to an address provided by ERR and must include the licence number, reason for surrender and the signatures of all licensees.<sup>712</sup> The essential process is as follows.

- The surrender of a licence is, prior to expiry, instigated by the licence holder and can be whole or partial.<sup>713</sup> However, similarly to Queensland, the licence holder must have the consent of the Minister to surrender the licence.<sup>714</sup>
- There is not always a separate environmental authority which needs to be surrendered, although there may be licences under the EP Act to be discharged.
- The MRSD Act sets out the process for certification of rehabilitated land and return of bonds, although certification is discretionary and is not required in all cases.<sup>715</sup>
- In determining whether the land has been rehabilitated and the bond may be returned, the Minister can require that the licence holder to engage an independent environmental auditor<sup>716</sup> to certify that

<sup>704</sup> Ibid, ss 271-273.

<sup>705</sup> Ibid.

<sup>706</sup> *Residual Risk Assessment Guideline – Interim* (Qld) (2020).

<sup>707</sup> Ibid, (2020) 5.

<sup>708</sup> Ibid.

<sup>709</sup> *Environmental Protection Act 1994* (Qld) s 271.

<sup>710</sup> Queensland Government, *Residual risk payments for an environmental authority*, Business Queensland (2020) <<https://www.business.qld.gov.au/running-business/environment/licences-permits/rehabilitation/residual>>.

<sup>711</sup> Ibid.

<sup>712</sup> ‘Renew or vary a mining licence’ Earth Resources (2 June 2021) <<https://earthresources.vic.gov.au/licensing-approvals/mineral-licences/renew-or-vary-a-mining-licence>>.

<sup>713</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 37.

<sup>714</sup> Ibid.

<sup>715</sup> Ibid, ss 81A and 82.

<sup>716</sup> Within the meaning of the EP Act.

the land has been rehabilitated in accordance with the approved rehabilitation plan.<sup>717</sup> If the requirements of the rehabilitation plan have been met, the Minister must return the bond(s) to the former licence holder as soon as possible after the Minister is satisfied that: (a) the land has been rehabilitated as required, (b) the rehabilitation is likely to be successful, and (c) any other closure criteria have been met.<sup>718</sup> If mining has taken place on private land, those landowners and the local municipal council must be consulted before the bonds are relinquished.<sup>719</sup> In returning the bond, the Minister may also require the former mining licensee to enter a further rehabilitation bond if any part of the land requires further rehabilitation.<sup>720</sup>

Once these steps have been completed, ‘relinquishment’ will have occurred.

#### 6.4.4 Oversight of rehabilitation standards having regard to process for determining relinquishment

The relinquishment process is guided by rehabilitation and closure planning that begins with a mining proposal and is subject to amendment during the term of the resource tenure and, in Queensland, the term of the Environmental Authority. It is then the role of the government upon application to surrender the mining lease or licence to determine whether the obligations established through the rehabilitation and closure plan have been satisfactorily discharged.

There are two ancillary points to make about the standards to be applied in the relinquishment decisions.

First, Queensland and Western Australia permit similar processes of progressive certification, where parts of the lease can be certified as properly rehabilitated, at which point any remaining obligations the lease holder owed in relation to the site in question are released. In Western Australia it is the responsibility of DMIRS to conduct this certification, and in Queensland it is a joint responsibility of both the Department of Environment and Sciences and the Department of Mining and Resources. Thirteen applications for progressive certification have been made in Queensland in the last decade.<sup>721</sup> The Department of Environment and Sciences will determine whether or not to approve the surrender of the environmental authority based on an assessment of the material provided in the application.<sup>722</sup> This is aimed at providing certainty of relinquishment at the time, despite the rapid evolution of rehabilitation standards. The notable contrast is that the Queensland system of progressive certification is provided by legislation whereas it is only simply indicated in the WA Guidelines, providing no legal certainty of outcome.

Secondly, there is the question of developing standards for recognition of satisfactory rehabilitation. Recent reform in Queensland established the role of the Rehabilitation Commissioner, whose role is to provide independent advice to both government and industry for the assessment of decisions under the rehabilitation framework, currently the Residual Risk Assessment Guideline.<sup>723</sup> The role of the Commissioner is also to work with the community and industry stakeholders to deliver balanced, scientific recommendations on appropriate rehabilitation standards for both specific mine sites and policy development generally.<sup>724</sup> Where mine closure plans lack detail, the Commissioner may assist in determining whether rehabilitation has been undertaken to an acceptable standard.<sup>725</sup> The Commissioner’s role includes

<sup>717</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 81A.

<sup>718</sup> *Ibid*, s 82.

<sup>719</sup> *Ibid*, s 82(2).

<sup>720</sup> *Ibid*, s 82(3).

<sup>721</sup> Information provided by the Queensland Resources Council.

<sup>722</sup> Progressive certification for an environmental authority, Department of Environment and Science, <<https://www.business.qld.gov.au/running-business/environment/licences-permits/rehabilitation/certification>>.

<sup>723</sup> *Environmental Protection Act 1994* (Qld) ch 8A.

<sup>724</sup> *Ibid*, s 444I.

<sup>725</sup> *Ibid*.

preparing reports and other accessible material for the public to improve transparency.<sup>726</sup> The Rehabilitation Commissioner is an example of an administrative authority with a tailored public benefit purpose for mine closure.

Victoria has a similar approach with the MLRA, which also clarifies rehabilitation, closure and other post-production obligations for declared mines. The MLRA is based in the Latrobe Valley, which allows it to take a more hands-on approach since it is on site and can conduct monitoring on the ground. The ERR also has regional offices which can allow similar benefits in respect of non-declared mines. The MLRA can offer guidance to mine operators on how to meet the rehabilitation obligations within their work plans, as well as ensuring that standards are up to date and reflect modern understandings of closure.<sup>727</sup>

The operations of the MLRA and ERR are guided by the Completion Criteria Framework, which was developed by the Western Australian Biodiversity Science Institute and endorsed by DMIRS.<sup>728</sup> It is a non-binding guideline which provides some criteria that both miners and regulators can use to assess the adequacy of post-mining land uses and other closure objectives.

## 6.5 Chapter 6 conclusion and comparative analysis

This chapter has compared the law and policy of Western Australia, Queensland and Victoria on three important functions of mine rehabilitation and closure regulation in the mine operation stage:

- The transparent updating (amendment) of plans for approval and the implementation of the plans through mandating execution by statements of public duties with sanctions for non-compliance, and the associated monitoring and reporting procedures;
- The rights of community engagement in the amendment and implementation of rehabilitation and closure plans; and
- The identification of clear procedures and criteria for determining when rehabilitation and closure plans have been met and the resource tenure can be relinquished.

All three jurisdictions provide for these functions in some fashion but, as with the pre-mine operation stage, there are significant differences in the law and policy means for regulating these functions.

It bears briefly re-iterating that the *Mining Act* (WA) applies a very flexible light regulatory touch by means of mine closure planning guided by statutory and non-statutory guidelines to approve regular three-yearly updates of the MCPs that gain legal effect by the suggested endorsement of a mining lease condition that mine rehabilitation must be implemented in accordance with the approved MCP. The sanction for not fulfilling the lease condition is the potential for mining lease forfeiture or a modest pecuniary penalty. The monitoring and reporting procedures are limited to the traditional annual reporting (especially on mining expenditure) and the also limited functions of annual reporting on existing mine land rehabilitation liabilities for the calculation of the annual levy paid to the MRF. There is no transparent means of reporting on the fulfilment of the commitments of an MCP and the community rights to information and comment on amendments to or fulfilment of MCPs are limited to the strategy for stakeholder consultation devised by the lease holder for approval in the three yearly updates of the MCPs. There are undoubted benefits here for lease holder flexibility but more troublesome questions about predictability, accountability and acceptance of residual risk for communities. Equally, the fluid relinquishment process with overarching requirements may seem adapted to a diverse mining industry but it could also demand a lot of negotiation at the time of closure to create measurable, attainable milestones. State Agreements are even less predictable again, being

<sup>726</sup> Ibid.

<sup>727</sup> See Stage 2, 6.1.1.1.3

<sup>728</sup> Young, RE, Manero, A, Miller, BP, Kragt, ME, Standish, RJ, Jasper, DA & Boggs, GS (2019). A framework for developing mine-site completion criteria in Western Australia. The Western Australian Biodiversity Science Institute, Perth, Western Australia.

tailored to individual circumstances. The flexibility can create uncertainty of outcomes for community and industry alike, and leaves government potentially hesitant in how to exercise its authority. The issue of balancing certainty with flexibility is a constant regulatory difficulty.

Queensland's regulation of these functions is clearly the most legislatively detailed, independently administered, and legally forceful and transparent, in both the processes for providing information and in the legally expressed duties to fulfil the commitments and conditions of a PRC plan and schedule re-enforced by the sanctions for non-compliance, which may be identified by the administering authority requiring a statement of compliance. No doubt the industry can point to the potential transaction costs of such a specifically regulated system, but there could be interesting research questions around the industry's perceptions across the other comparative themes of accountability, predictability and liabilities, including for residual risk.

In many ways the Victorian legislation provides the more readable legislative provisions, with a convenient identification of core decision-making powers in the MRSD Act and sufficient detail in the regulations for the various instruments to be prepared in fulfilment of the statutory duties. Victoria also provides a more flexible regime of enforcement by declaring broad statutory duties to be fulfilled but leaving the enforcement regime to the supplementary exercise of administrative discretion in the making of enforceable undertakings and compliance orders. The Victorian legislation, as outlined in chapter 5, relies on the statutory duty of community consultation imposed on the mining licensee and guided by a consultation plan to be prepared in accordance with the regulations. The licensee's statutory duties to consult the landowner and local municipal authority are simply and directly stated but the content of rehabilitation plans are private, not being required to be lodged on the public register of mining instruments.

Again, all three jurisdictions have specified quite clear procedures for determining relinquishment but Western Australia's requirements are spelled out in statutory and non-statutory guidelines of dubious legal effect that leave a high degree of uncertainty for industry and community alike and uncertain authority for government.

Ultimately, it is possible that a large amount of the mine closure planning undertaken pre-operation is adapted during operations. Whilst progressive rehabilitation is an optimal aspiration for government, industry and community stakeholders, it is possible that the bulk of mine closure conditions are negotiated in detail once operations cease and decommissioning begins.

## 6.4 – 6.5 Future Research Point

Relinquishment and mine closure are processes that often occur progressively over decades. It is therefore necessary for the regulatory framework to balance more adaptable soft law with legislated requirements. The long-life cycle of many mines and the inherent lack of agility of a mine void demands realistic research on how flexible the industry can realistically be and what regulatory elements ought to be prioritized to achieve certainty and accountability. Where exactly does this balance lie when regulating for efficient relinquishment but safe, stable and sustainable landforms? Future research to help define that balance could consider the following.

- What are the key elements that would be needed to give both operators and regulators certainty that closure/rehabilitation/repurposing has occurred and relinquishment can take place?
- What would a model relinquishment process and criteria look like to balance industry and government perceptions of transaction costs v's other comparative themes of accountability, predictability and potential liabilities, including financial assurances for residual risk?
- What is the role of community consultation in determining relinquishment, including consultation with local government? Is it more than consultation?
- When would residual risks be transferred to the State?
- This research could review nationally and internationally relevant laws and relinquishment case studies in order to draft up model regulations/legislation for relinquishment. The International Energy Agency [work on carbon capture and storage](#) may be a good model to look at.

# 7 Post-mine operation

## 7.1 Overview – the risks of relinquishment

This chapter addresses what happens after the initial closure process has been completed, in that production has ceased and the mine has been decommissioned, and post-mining monitoring is assessing whether the rehabilitation has been successful enough to sustain an application for relinquishment. Both regulatory authorities and industry consider a key goal of mine closure and tenure relinquishment to be the absolving of liability for residual risks. Certainty surrounding residual risk liability can have positive impacts on the assessment of insurance costs and generate confidence for future environmental, social and economic management. In reality, some exposure to residual risks may persist past certification of relinquishment. Once relinquishment of the mining lease or mining licence has been achieved, both stakeholder rights and miner liabilities under the mining tenure cease, although common law rights and some other forms of statutory liability, discussed below, perpetuate. This is one of the greatest hurdles for the Australian regulatory framework and the future of the mining industry: how to reconcile the fact that stakeholders may continue to have their interests affected decades after any legislated rights have ceased effect.

To consider these issues, this section will use the following headings:

- Options for post closure management;
  - Optimal rehabilitation and repurposing outcomes in soft law and social licence;
  - Government step-in powers;
  - Legacy and abandoned mine sites;

- Statutory mechanisms for addressing foreseen residual risks, including for re-purposed assets;
  - Community post-production rights, including local government;
  - Land use planning law,
  - Public health law;
  - Private land holder rights and compensation law;
  - Miner post-production authority; and
- Common law mechanisms for addressing foreseen and, potentially, unforeseen residual risks.

After each significant heading and at the conclusion of this post-operation discussion, we will conduct a comparative analysis discussion to draw out some key differences between the jurisdictions. This chapter is followed by a case spotlight on Iluka's closure of their operations in South Capel, which have been in active closure and rehabilitation for decades.

## 7.2 Options for post closure management

The largest regulatory gaps may exist in the post-mining landscape. To understand how the ongoing legacies of mine sites are managed, it is useful to begin by considering the regulatory landscape through an environmental, social and governance (ESG) lens. As will be considered below, many soft law standards, including industry norms, utilise this ESG framework. It considers the competing pressures on mine operators to consider their duties to the planet, the affected people and their legal obligations. At the 2021 AME roundup, ESG was boiled down to simply 'being a good corporate citizen'.<sup>729</sup> A consideration of ESG principles can assist mine operators and regulators in maintaining a social license to operate. This section then considers the step-in role of government, especially in addressing legacy and abandoned mine sites.

### 7.2.1 Optimal outcomes: the role of soft law and social licence in addressing gaps in regulation

Mine closure and rehabilitation standards are evolving and the 'ideal' outcome is unique to each site. In general, optimal future land uses create net beneficial land use which warrants acceptance of any detriments by future land users. Most major mines in Western Australia and Queensland are still several years, if not decades, away from closure and so many of the new reforms are being tried and tested by small operations. Victoria's largest mines in the Latrobe Valley are in the process of actively planning a transition to a future land use, but this presents its own teething problems, discussed in the Latrobe Valley case study. However, current discourse suggests that a key issue is returning the site to a state that leaves minimal residual risks and potential for future liability, along with beneficial future land uses that may repurpose mine sites and assets in ways that consider the relevant economic, social and cultural needs of the region. Given the novelty of this activity and the relatively inchoate set of legal principles and experience with them, there is some reliance on soft law to establish post-closure outcomes. The question is what can industry standards and soft law contribute to the post closure outcomes?

Recently, the Australian minerals industry, represented by the Minerals Council Australia, adopted the Towards Sustainable Mining framework.<sup>730</sup> This framework is aimed at assisting the industry to assess, manage and communicate about their sustainability initiatives.<sup>731</sup> It is rooted in ESG goals and is the accountability framework to complement the Enduring Value framework previously adopted.<sup>732</sup> The

<sup>729</sup> Rick Mills, 'ESG seen as biggest risk to mining' (15 April 2021) <<https://www.mining.com/web/esg-seen-as-biggest-risk-to-mining-industry/>>.

<sup>730</sup> *Towards Sustainable Mining: taking ESG accountability to a new level*, Minerals Council Australia <<https://www.minerals.org.au/towards-sustainable-mining>>.

<sup>731</sup> *Ibid.*

<sup>732</sup> *Ibid.*

industry-wide adoption of the Towards Sustainable Mining framework better allows companies to effectively communicate with communities and other stakeholders to strengthen their social license to operate.<sup>733</sup>

A commitment to both of Enduring Value and Towards Sustainable Mining frameworks are conditions of Minerals Council Australia membership and requires members report publicly on compliance with the frameworks.<sup>734</sup> Compliance is independently verified every three years and the Towards Sustainable Mining framework is overseen by a multi-stakeholder group called the Community of Interest Advisory Panel.<sup>735</sup> The panel reviews mining operations on a rotating schedule and regularly updates the framework.<sup>736</sup> This is an example of regulation being undertaken, independently of government, in a way that, in some respects, extends beyond the requirements of existing regulatory frameworks, especially in terms of the requirements for continual communication with local communities. It also allows for regular re-evaluation and amendment of closure and environmental standards without the same delays that can occur in political spheres.

The Enduring Value framework endorses ten sustainability principles to guide mining operations and interactions with employees, the community and the environment.<sup>737</sup> An important principle in the mine closure and rehabilitation context is principle 6, “Seek continual improvement of our environmental performance”. The five elements include elements 6.3 – 6.5:

- 6.3: Rehabilitate land disturbed or occupied by operations in accordance with appropriate post-mining land uses,
- 6.4: Provide safe storage and disposal of residual wastes and process residues,
- 6.5: Design and plan all operations so that adequate resources are available to meet the closure requirements of all operations.

The verifiable outcomes include:

- A costed closure plan with agreed post-closure land uses developed in conjunction with relevant stakeholders; and
- The closure plan is implemented to the extent practicable over the operating life of the mine and adequate financial provision exists to support full implementation at closure.

It is an interesting research question to consider how soft law principles such as these have informed corporate conduct in addressing the new challenges in mine rehabilitation and closure, especially where there is a gap in legislative coverage, such as in the State Agreements regime that is explored in the Pilbara Case Study.

### 7.2.2 Government step-in powers

There are some post-mining effects or risks that may never be able to be rehabilitated entirely or properly minimised and so will require continual treatment. State jurisdictions generally address this through the use of financial security or other forms of statutory duty, such as contaminated sites regulation, discussed below.

Victoria’s unique declared mine framework includes the capacity for the Government to take rehabilitation action in respect of declared mines.<sup>738</sup> The Minister may take any necessary action to rehabilitate declared mine land if they are not satisfied that it has been rehabilitated in accordance with the rehabilitation plan or

<sup>733</sup> Ibid.

<sup>734</sup> Ibid.

<sup>735</sup> Ibid.

<sup>736</sup> Ibid.

<sup>737</sup> “Enduring Value: The Australian minerals industry framework for sustainable development”, 2015 edition, <<https://www.minerals.org.au/sites/default/files/190503%20Enduring%20Value%20Principles.pdf>>

<sup>738</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 83.

that it requires further rehabilitation.<sup>739</sup> However, the Minister must first request that the authority holder or former authority holder undertake that rehabilitation, and may only take action if the authority holder or former authority holder fails to do so within a reasonable time.<sup>740</sup> To take any necessary action the Minister can use bond, levy or Declared Mine Fund money, and must return any remaining bond to the former authority holder on completion of the rehabilitation work.<sup>741</sup>

There may also be circumstances where either the mining tenure holder or the government cannot achieve a satisfactory rehabilitation at a time proximate to the relinquishment of the resource tenure. One relevant example of such a risk that may require care in perpetuity is acid and metalliferous mine drainage (AMD). As the WA Department of Mines and Petroleum said in 2009: “Acid drainage can continue long after mining operations are complete. Abandoned mines can represent a substantial liability for industry and government once the economic resource at a site has been mined out”.<sup>742</sup> The Department’s advice explains how to identify the risk of AMD occurring before operations begin and to take measures to prevent it becoming a problem and causing land and water contamination.

Should contamination arise, all three States have legislation that deals specifically with contaminated sites and can empower communities, post-closure, to seek a legal remedy for the environmental contamination.

- The *Contaminated Sites Act 2003* (WA) continues to apply even after a mining lease has been relinquished. There is a duty to report contamination on the owner or occupier of a site, or a polluter who suspects that they have contributed to contamination. If contamination is confirmed by the CEO of DWER, there is a hierarchy of responsibility for the remediation of a site that is deemed contaminated, regardless of whether the contaminating activities occurred under lawful authority, unless the activity was reasonably carried out to avert an environmental emergency or save life.<sup>743</sup> The first person who is responsible for the remediation of a contaminated site is the person who caused or contributed to the contamination.<sup>744</sup> Secondly, the responsibility falls on the owner or occupier of the site if they have changed or propose to change the way the land is used. Thirdly, it is the responsibility of the owner of the site, irrespective of land use, if they knew or suspected or had reasonable grounds to know or suspect contamination.<sup>745</sup> Finally, the State becomes responsible for remediation if the contamination arose from an action for which government was responsible or no other responsible person can be found or made responsible, or responsibility for the remediation is transferred to the Government.<sup>746</sup>
- The *Contaminated Land Act 1991* (Qld) also applies independently of any mining legislation but does rely on the general environmental duty established under the *Environmental Protection Act 1994* (Qld). This duty is a form of duty of care that applies to any legal person carrying out an activity which causes or may cause environmental harm to take all reasonably practicable measures to minimise the harm.<sup>747</sup> A violation of this duty can enliven a right for affected communities to seek redress.<sup>748</sup> The *Contaminated Land Act 1991* (Qld) prohibits the contamination of land and requires the active prevention of contamination. The Western Australian and Queensland legislation is comparable, with

<sup>739</sup> Ibid, s 83(1).

<sup>740</sup> Ibid, s 83(2).

<sup>741</sup> Ibid, ss 83(5) & 84.

<sup>742</sup> Government of Western Australia, Department of Mines and Petroleum, Acid Mine Drainage, Environmental Notes on Mining (2009) p 1.

<sup>743</sup> *Contaminated Sites Act 2003* (WA) s 24.

<sup>744</sup> Ibid, s 25.

<sup>745</sup> Ibid, s 26.

<sup>746</sup> Ibid, s 29.

<sup>747</sup> *Contaminated Land Act 1991* (Qld) ss 13, 20.

<sup>748</sup> Ibid, s 21.

Queensland's *Contaminated Land Act 1991* also establishing a duty to notify the State government of any changes to contaminated land or likely causation of contaminated land.<sup>749</sup>

- In Victoria, the EP Act imposes a duty to manage contaminated land and notify the Victorian EPA of any 'notifiable contamination'.<sup>750</sup> Notifiable contamination is set by reference to the EP Regulations as including but not limited to:
  - Soil contamination, both on the mined land or on adjacent property.
  - The presence of friable asbestos, where a person has likely been exposed.
  - Ground or surface water contamination above certain thresholds.<sup>751</sup>

The EP Act (Vic) also empowers third parties to take action against anyone in breach of the Act and where: (a) the EPA has failed to act within a reasonable time of being requested to do so; and (b) the action would be in the public interest.<sup>752</sup> This includes action for a failure to manage contaminated land, but the action can only be brought against the person currently in control of the land, so this would not assist in holding a mine operator to account where the mining tenement had already been relinquished. The EPA also has power to issue a 'site management order' to manage long term contamination of land.<sup>753</sup> A site management order is registered on title, and binds the owner, occupier or person that has the management or control of the land who is served with it together with each subsequent owner, occupier or person with the management or control of the land for the time being.<sup>754</sup> Use of a site management order, therefore, gives the EPA the ability to ensure long term management of contaminated mine sites. As this is one of the new provisions introduced by the recent reform of Victoria's environmental protection laws that commenced on 1 July 2021, there is no information about how or when this power will be used. The general environmental duty established by the EP Act is also directly enforceable in civil or criminal proceedings.<sup>755</sup>

### 7.2.3 Legacy and abandoned mine sites

Both Western Australia and Queensland largely deal with historically and illegally abandoned mine sites using their recently introduced pooled fund financial security systems.

The *Mineral Resources Act 1989* (Qld), Chapter 13, Part 4, deals specifically with remediation and rehabilitation of abandoned mine sites. It defines 'abandoned mine site' as a site where mining activities were conducted but no mining lease or environmental authority is in force.<sup>756</sup> It then proceeds to detail what remediation or rehabilitation activity is in the context of an abandoned mine site.<sup>757</sup> This section of the MR Act is useful in providing context to what the State will generally consider to be a remediation activity, in that it includes making the site safe, cleaning up pollution and removing or managing hazards.<sup>758</sup> It sets out that the Department of Resources may authorise a legal person to enter an abandoned site to conduct remediation and rehabilitation work and obliges them not to cause any unnecessary damage and to take all reasonable steps to cause as little inconvenience as possible.<sup>759</sup> The person authorised to conduct the remediation activities must obtain the consent of the owner and occupier of the subject land and report to the owner and occupier of the land about any remediation activities undertaken and must pay them

<sup>749</sup> Ibid, s 17.

<sup>750</sup> EP Act (Vic) Part 3.5.

<sup>751</sup> EP Regulations (Vic), rr 8,9, & 10.

<sup>752</sup> EP Act (Vic) ss 308-313.

<sup>753</sup> EP Act (Vic) s 275.

<sup>754</sup> EP Act (Vic) s 276.

<sup>755</sup> EP Act (Vic) s 25.

<sup>756</sup> *Mineral Resources Act 1989* (Qld) s 344.

<sup>757</sup> Ibid.

<sup>758</sup> Ibid.

<sup>759</sup> Ibid, ss 344C, 344D.

compensation as agreed or determined by the Land Court. These provisions allow the State to rehabilitate abandoned sites but also allows previous lease holders to re-enter their ex-mine sites to conduct rehabilitation work.

Whilst Victoria does not have the same form of system applicable generally, it uses a fund to address this issue for declared mines and released a statement in December 2020 to clarify departmental responsibilities for legacy and abandoned mines on Crown land.<sup>760</sup> The statement defines ‘legacy mines’ as those that ceased operation before 1990 and for which no licensee or person can be made responsible for their rehabilitation, and ‘abandoned mines’ as those in operation or approved after 1990 but are no longer and for which there is no person that can be made responsible for their rehabilitation. Essentially, State Government agencies will be responsible for the rehabilitation of these mines or their management if there is a prospect that they may again become the site of commercial mining. The VAGO report (see section 2.4.2 of this Report) identified improvement of management of illegally abandoned mines as a key issue and the Government response to the report is expected to take further steps to address this.

Victoria’s State Government can also enter the land to rehabilitate mine sites.<sup>761</sup> However, as mentioned above at 2.4.2, the VAGO Report found that ERR used outdated cost estimates and did not periodically review bonds for sufficiency, leading to insufficient funds to manage historically abandoned mines. It also found that the ERR had not exercised its powers to access the fund or enter the land to rehabilitate it. The 2019 reforms to the MRSD Act simultaneously established the MLRA and the Post-Closure Fund to meet ongoing costs of managing declared mine land.

Once again, Western Australia’s legislation is less detailed. It does not expressly address abandoned or historical mine sites; however, it does codify some of the same rights discussed above.<sup>762</sup> In particular, it establishes that after a mining lease ceases by expiry, surrender or forfeiture, the Minister may authorise a legal person to remove any mining plant remaining on the site or require the previous lease holder to do so or show reason why it cannot be removed.<sup>763</sup> It also confirms that existing liabilities survive expiry, surrender and forfeiture and that the former lease holder retains a right to enter the site in order to conduct remedial work.<sup>764</sup> Remedial work is not exhaustively defined as it is in the Queensland legislation.

Both Queensland’s and Western Australia’s pooled fund systems are designed so that the interest accumulated on the account can be utilised by the State to conduct rehabilitation on historically abandoned mine sites which are no longer subject to ongoing obligations on private bodies.<sup>765</sup>

#### 7.2.4 Comparative analysis of options for post-closure management

There are regulatory gaps in the post-closure management of mine site rehabilitation leading to relinquishment. The key gaps are in monitoring and assessing whether the commitments of a rehabilitation plan have been met and relinquishment can be achieved. In Western Australia, there is legislative uncertainty around the process for and consequences of certifying relinquishment. Uncertainty can also arise from the ambiguous use of concepts.

There is a legal presumption that once a mining tenement has been relinquished, the State or other underlying private land holder will assume responsibility for any ongoing risk management and rehabilitation. Due to the comparatively small number of mine sites that have been relinquished and then

<sup>760</sup> Government of Victoria, joint statement by officers of the Departments of Jobs, Precincts and Regions; of Environment, Land, Water and Planning; and of Parks Victoria, “Management of legacy and abandoned mines on Crown land”, December 2020.

<sup>761</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 83.

<sup>762</sup> *Mining Act 1978* (WA) ss 114B, 114C.

<sup>763</sup> *Ibid.*

<sup>764</sup> *Ibid.*

<sup>765</sup> *Mining Rehabilitation Fund Guidance (2013)* (WA) p 3; Queensland Treasury, *Financial Provisioning Scheme* (14 November 2019) <<https://www.treasury.qld.gov.au/resource/financial-provisioning-scheme/>>.

required remedial action on the part of the State, there is a lack of data on whether current financial assurance mechanisms are effective at equipping States with the means to take supplementary remedial, rehabilitation or restoration action.

In addressing this regulatory gap, we have briefly identified the role of soft law and the social licence to operate as mechanisms to define what mining operators may do, perhaps beyond the strict requirements of regulation. The effectiveness of the social licence as a tool for post closure management and achieving rehabilitation goals (including repurposing and transformation) needs further investigation. Future research may seek to draft model provisions for legislation on for relinquishment and post closure management; for example, by drawing ideas from International Energy Agency Carbon Capture and Storage: Model regulatory framework.<sup>766</sup>

In the interim, it is important to keep in mind the step-in powers of government to address deficiencies in rehabilitation at the threshold of relinquishment. Such powers are defined to some extent in Queensland and Victoria, but not so much in Western Australia. The opposite is true when it comes to contaminated sites; here Western Australia and Queensland (and more recently, Victoria,) have developed legislation that addresses the legal liabilities to remedy land and water contamination, including when that responsibility will pass to the State. Exactly what that remediation looks like, and what the ideal outcome is post-relinquishment is still a grey area of law. Western Australia and Queensland also have the pooled funds that are supposed to be used by the State to remediate and rehabilitate abandoned sites but there is yet little evidence of how those funds are being applied.

#### 7.2.4 Future Research Point

Notwithstanding that there are a framework of laws that may be applied to address foreseen or foreseeable residual risks, there are still gaps in understanding how the post-closure management process can work. Each of the three jurisdictions has some form of government step-in powers and government access to financial assurance funds to remediating abandoned sites. Future research may seek to draft model provisions for legislation for post closure management; for example, by drawing ideas from International Energy Agency Carbon Capture and Storage: Model regulatory framework. Such provisions will need to devise procedures and principles for identifying and allocating liability for residual risks. In identifying those residual risks, it may be opportune to evaluate how the mining laws compensation regimes operate to address the on-site and off-site harm caused over the life of the mine and beyond rehabilitation.

### 7.3 Statutory mechanisms for addressing foreseen residual risks

As discussed above, Western Australia has a comparatively underdeveloped hard law regulatory framework in respect of residual risk and relies on guidelines and soft law. The way residual risks are addressed (other than for abandoned mines discussed above) is either through previously agreed apportionment of liability, in accordance with industry norms, or through the common law. Victoria is similar and rests even less on codified principles. Some of these issues are addressed for declared mines in the Latrobe Valley (discussed in the case study). By contrast, Queensland has an evolving residual risk framework, though industry norms remain relevant.<sup>767</sup>

<sup>766</sup> International Energy Agency, <<https://www.iea.org/reports/carbon-capture-and-storage-model-regulatory-framework>>.

<sup>767</sup> Queensland Treasury, Queensland Government Consultation Report: Managing Residual Risk in Queensland Discussion Paper, February 2019: <<https://www.treasury.qld.gov.au/programs-and-policies/improving-rehabilitation-financial-assurance-outcomes-resources-sector/>>.

In this context, we briefly consider the application of a range of laws that may be relevant for identifying and addressing residual risks in the post-relinquishment context. Of course, across the life of a mine, the effective application of environmental protection and water resources legislation will be important for minimising environmental and natural resources harm, and so reducing the prospect of residual risks after mine closure. Those laws are not the object of our attention here.

One of the significant residual risks for communities and governments is that the responsible mining entities may disappear following tenure relinquishment. One solution may be for clear assignment of residual risk liabilities to government, especially if those liabilities may arise in relation to public land. However, this is a less suitable solution where the mine land is returned to private land ownership for private productive activities. The relinquishment arrangements may anticipate a transfer of the residual risks to the private owners and local communities, including local government. Equally, a more suitable solution may be to retain a post mine production tenure between the mining operator and the mined land.

### 7.3.1 Community, including local government

None of the States considered provide a formal statutory post-closure set of rights for local communities living near closed mines. Beyond specific statutory duties such as the contaminated sites legislation discussed above and potential recourse to common law rights, local communities and governments have minimal opportunities to seek remediation or further rehabilitation once surrender and relinquishment have been achieved. Communities instead have to resort to the media, and reputational damage, to pressure larger mining companies into seeking post-production access to the land in order to undertake remedial action to maintain their social license to operate. However, this is much less likely to be successful with smaller mining operations or historically abandoned mine sites. For these reasons, it is best that local communities are aware of the utility of the following legal mechanisms for addressing foreseeable residual risks.

### 7.3.2 Land use planning law

Regional planning regulation and strategy is integral to successful repurposing of mine sites. It can necessitate some cumulative impact assessment be undertaken to determine the compatibility of different projects proposed as alternative land uses. Where progressive rehabilitation includes progressive transitioning to a post-mining land use (as discussed in the Iluka case spotlight below), a consideration of and compliance with land use planning law will be essential to the success of that transition.

#### 7.3.2.1 Western Australia

Regional planning schemes in Western Australia are developed by the State Government and set out land use zones for each region. These operate in conjunction with local planning schemes developed by local governments. Western Australia's planning regime is established by the *Planning and Development Act 2005* (WA), which sets out strategic planning objectives and that any regional planning scheme must be referred to the EPA for an environmental review (section 39). The Minister for planning and development may also request that the EPA provide strategic advice on a regional planning scheme.

There are currently three regional planning schemes in Western Australia, for the Metropolitan region, the Peel region and the Greater Bunbury region. As a result, mining operations north of Perth only need to consider relevant local planning schemes and strategic planning objectives when applying for planning approvals.

#### 7.3.2.2 Queensland

The *Planning Act 2016* (Qld) and corresponding regulation operates with the *Regional Planning Interests Act 2014* (Qld) and its corresponding regulation. Similarly to Western Australia, Queensland uses a system of regional and local planning schemes.

The *Planning Act 2016* (Qld) sets out the process by which development applications are assessed. When applying for planning approval, developers need to consider regional and local planning scheme objectives. The majority of planning objectives and requirements are set out at a local level, including the environmental and social outcomes of the plan. It is not uncommon, due to the complex nature of local planning schemes, for there to be conflicts between local and regional schemes, and within local planning schemes. In this case, the Queensland Planning and Environment Court recommends taking a ‘common sense’ approach to approvals.<sup>768</sup>

### 7.3.2.3 Victoria

The PE Act and its accompanying regulations govern planning law in Victoria, as discussed at 5.2.3.2. The Victoria Planning Provisions, contain State-wide policies and objectives that local authorities give effect to in their local planning schemes, along with local provisions. Some provisions apply regionally, such as the Gippsland Coal Resource, 14.03-1R, which states as one strategy: “Ensure coal excavations, overburden dumps and other associated developments are planned, managed and progressively rehabilitated to facilitate the highest practicable future use”.<sup>769</sup>

As with Queensland and Western Australia, Victoria also has local planning provisions that determine the requirements for planning permits. Local planning schemes apply zones to land and specify the activities that do and do not require permits within the relevant zone, as well as setting out any prohibited land uses. Victoria’s planning schemes, as with Queensland and Western Australia, do not usually specifically contemplate alternative uses for closed mine sites (with the exception of the Latrobe Valley).

In the time available for this project, we did not have the time to review examples of relevant planning schemes in order to ascertain what examples there may be of planning schemes that facilitate mine relinquishment processes. It may be that there are not well-developed models of how this can be done. The Iluka case spotlight in chapter 8 suggests that the mine rehabilitation there is interacting with the land use planning system on an ad hoc basis and without much regulatory guidance. This is a topic for future research.

### 7.3 Future Research Point

How can land use planning regimes and mine relinquishment processes be better integrated to ensure that future repurposing of rehabilitated mine land can be achieved? How could third party/community rights of engagement/consultation be integrated across the rehabilitation plan/relinquishment process under the mining regime and the planning scheme amendment process? How are local councils best involved in this process and what guidance should come from the State level?

Also, a distinct regulatory gap exists for the regulation of repurposing of mine sites. It is generally conducted on a site-by-site basis and, whilst this allows for flexibility and individual circumstance, it neglects to provide clear outcomes for post-mining transition processes. What regulatory mechanisms could be employed to incentivise progressive transitions towards repurposed mine sites post-closure?

### 7.3.3 Public health law

Public health law is necessarily intertwined with contaminated sites legislation. Contamination of soil, air or waterways (including groundwater) can pose risks to the public health of affected communities and thus trigger responses under the public health legislation. We briefly consider here the goals of this type of

<sup>768</sup> *Ashvan Investments Unit Trust v Brisbane City Council* [2019] QPEC 19.

<sup>769</sup> Victoria Planning Provisions, p 109 of 1033: available at <<https://planning-schemes.api.delwp.vic.gov.au>>.

legislation that may inform decisions under this legislation. There is not the opportunity here to consider what those responses may be.

#### 7.3.3.1 Western Australia

The *Public Health Act 2016 (WA)* (PH Act) is the main piece of public health legislation for Western Australia. Part 3 of the PH Act establishes a general duty to “take all reasonable and practicable steps to prevent or minimise any harm to public health that might foreseeably result from anything done or omitted to be done by the person”. In assessing what is reasonable and practical, regard must be had to:

- Potential impacts to public health; and
- Environmental, social, economic or practical implications; and
- The nature, extent and duration of any harm; and
- What is generally accepted practice, taking into account community expectations.

The PH Act also sets out offences for knowingly engaging in conduct that will or is likely to cause a serious public health risk (section 37).

#### 7.3.3.2 Queensland

The *Public Health Act 2005 (Qld)* (PH Act) is Queensland’s key piece of public health legislation. It does not have a general duty as Western Australia does, but has detailed requirements for ‘environmental health events’. Environmental health events can be a single event or occur over time, and require human exposure to anything known or reasonably suspected of having an adverse impact on human health.

An environmental health register is created by section 51 of the PH Act, which must provide public notification of any environmental health events.

The PH Act chapter 7A relates to ‘pollution events’, a concept which is defined in section 313C to mean: “A **pollution event** is the release or dispersal of a contaminant or pollutant that may adversely affect public health”. In such circumstances, the chief executive of the department (responsible for the administration of the PH Act) may direct or publish a ‘pollution notice’: PH Act ss 313E – 313F. Further consideration needs to be given to the terms of the PH Act and how it could operate in conjunction with the EP Act in response to a pollution or contamination event arising from a rehabilitated mine site.

#### 7.3.3.3 Victoria

The Victorian regulation of public health rests on the *Public Health and Wellbeing Act 2008 (Vic)* (PH Act). The Victorian PH Act sets out guiding principles to be used when considering public health risks, including:

- The precautionary principle. If a public health risk poses a serious threat, lack of scientific certainty should not be a reason to postpone preventing or controlling the risk.
- The principle of primacy of prevention. Prevention is preferable to remedial measures.
- The principle of accountability. Decisions about public health should be transparent, systematic and appropriate.

Victoria’s PH Act is notably different to Western Australia and Queensland in that it does not have a general duty nor any specific environmental or pollution regulations.

### 7.3.4 Private land holders and compensation law

Following mine closure, mined land can be returned to or taken over by private land holders, sometimes for a future usage different from the pre-mining use, or sometimes it is returned to the pre-mine land use. Rights in common law negligence or nuisance can arise if remaining mining equipment or residual impacts

have an effect on the ability for the private land holder to utilise the land or causes any other loss as a result. In Victoria, a private land holder must be consulted before a bond relating to mining conducted on their private land is returned.<sup>770</sup> If a private land holder seeks redress from a previous lease holder, the lease holder can apply to the relevant authority, in all three States, to re-enter the land for the express purpose of conducting remedial action.<sup>771</sup>

The principal legal mechanism for addressing the foreseeable impacts of mining on private land holders is compensation for the impacts of mining on the rights of surface land holders. All States have statutory compensation provisions in the mineral resources statutes that operate in conjunction with or anticipation of common law mechanisms of awarding damages for tort and statutory negligence. The purpose of these compensation provisions is, generally, to compensate land holders with surface rights that are impacted by mining operations and will necessarily, therefore, engage a duty for miners to compensate the surface rights holder. Applied effectively, these provisions will compensate the surface rights holder for the loss of the use of their land during the term of mining operations and for any loss of value of the rehabilitated land after it is returned to the landholder following the relinquishment of the mineral resource tenure. Some mining operators will prefer to acquire the surface rights prior to mining and then to sell the rehabilitated land after the mining project is completed.

This aspect of the mining legislation is, potentially, a very important mechanism for addressing the impacts of mining and rehabilitation on the alternative long-term uses of the mined land. We have not had the opportunity to research the operation of this legislation for this project and suggest that it is a topic for future research, both for understanding the impact of the compensation provisions on individual enterprises but also for its potential aggregate effect on pre-mining communities that emerge post-mining.

#### 7.3.4.1 Western Australia

Part VII of the Mining Act addresses compensation in respect of mining and native title holders. The Mining Act establishes that no compensation shall be payable for consideration of entry onto any land for mining purposes, or in relation to any loss or damage where compensation cannot be assessed under the common law.<sup>772</sup> However, owners or occupiers of land have rights to compensation, payable by a person conducting mining activity, for any loss or damage incurred as a result of or arising out of said mining activity, whether or not carried out lawfully.<sup>773</sup> Compensation payable to a private land owner or occupier may be determined by agreement or otherwise by the Warden's Court.<sup>774</sup> The Act details a non-exhaustive list of circumstances which may give rise to compensation for land owners and occupiers and matters the Warden's Court must consider in making a compensation determination.<sup>775</sup>

#### 7.3.4.2 Queensland

The MR Act sets out that a holder of an environmental authority authorised to enter land in order to conduct remediation or rehabilitation activities must pay compensation to each owner of the land either according to a written agreement or as decided by the Land Court.<sup>776</sup> Compensation must also be paid to any native title holders under the *Native Title Act 1993* (Cth).<sup>777</sup>

The EP Act establishes that any person may claim compensation if any loss or expense has occurred due to any action taken to investigate or enforce requirements under the EP Act (with the exception of

<sup>770</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 82(2).

<sup>771</sup> *Environmental Protection Act 1994* (Qld) s 575; *Environmental Protection Act 1986* (WA) s 89.

<sup>772</sup> *Mining Act 1978* (WA) s 123.

<sup>773</sup> *Ibid*, s 123(2).

<sup>774</sup> *Ibid*, s 123(3).

<sup>775</sup> *Ibid*, s 124.

<sup>776</sup> *Mineral Resources Act 1989* (Qld) s 345.

<sup>777</sup> *Ibid*, s 348.

contamination incidents, being addressed separately by the *Contaminated Land Act 1991* (Qld)).<sup>778</sup> Similarly compensation may be claimed for any loss and damage incurred when a person entered land in order to comply with an environmental requirement.<sup>779</sup>

#### 7.3.4.3 Victoria

The MRSD Act and the PE Act deal with compensation. The MRSD Act establishes that a licensee must pay compensation to an owner or occupier of private land for any loss or damage that is or will be sustained as a direct, natural and reasonable consequence of the approval of the work plan or work done under the licence, and includes impacts both within the mining licence and offsite. Although the provisions do not specifically refer to rehabilitation work or residual risks, to the extent that the loss or damage arises as a result of any mining done under the mining licence and work plan, the rehabilitation of land and other works to address residual risks required post-relinquishment could potentially fall within these compensation provisions. The MRSD Act establishes a list of circumstances that will definitively result in payment of compensation and sets out the parameters for calculating the compensation owed.<sup>780</sup> Compensation can also be claimed for Crown Land.<sup>781</sup> A dispute about such compensation or a compensation agreement can be referred to VCAT or the Supreme Court.<sup>782</sup>

#### 7.3.5 Comparative analysis of mechanisms for addressing foreseen residual risks

All three jurisdictions may utilise existing statutory frameworks, like land use planning, public health and compensation laws, to provide avenues that may identify and address residual risks following mine rehabilitation. In this section, we could do little more than introduce basic themes regarding these statutory frameworks. In addition to these statutory frameworks, common law actions in tort may be relevant (briefly discussed below) or appeals to the company's social licence to operate. The latter can be through media attention, government lobbying or other informal means. However, this is only likely to be effective where the company is public or otherwise answerable to the local population.

Alternatively, statutory reform could create a post-production authority or licence that retains the legal connections between the mining entity and the mined land and host community. There is not currently any automatic continuation of any rights or obligations in Victoria, Queensland or Western Australia once a mine site has been relinquished and is in the post-closure phase. The States do allow the relevant departments to authorise the right to re-enter the land for the purpose of remediation, but these rights need to be reconciled with any private or community land rights.<sup>783</sup> State Agreements are no exception and act similarly to a contract: upon cessation of the agreement, all rights and obligations cease.<sup>784</sup>

One solution to create a more streamlined regulatory framework is automatically transitioning mining leases to a form of post-production licence that both grants access to the land and maintains post-production rehabilitation obligations.<sup>785</sup> The creation of a clear, enforceable system of addressing residual risks post-closure could offer a statutory answer to the currently convoluted common law framework for post-production liability. Alternatively, strengthening existing relinquishment procedures to include the consideration of residual risks and a mechanism to address liability for them into the future could be

<sup>778</sup> *Environmental Protection Act 1994* (Qld) s 579.

<sup>779</sup> *Ibid.*

<sup>780</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 85.

<sup>781</sup> *Mineral Resources (Sustainable Development) Act 1990* (Vic) s 85A.

<sup>782</sup> *Ibid.*, s 88.

<sup>783</sup> *Environmental Protection Act 1994* (Qld) s 575; *Environmental Protection Act 1986* (WA) s 89.

<sup>784</sup> Clare Ward, 'Miners' liability to redress reduced water quantity and quality after mine site closure: A case study of the Collie Coalfields in Western Australia' (2015) 32 *Environmental and Planning Law Journal*, 465.

<sup>785</sup> *Ibid.*, 466.

considered. From an industry point of view, it will be important to many mining operators that any future reforms establish a clear and achievable point for the cessation of the authority holder's liability.

### 7.3.5 Future Research Point

Notwithstanding that there are a framework of laws that may be applied to address foreseen or foreseeable residual risks, there are still gaps in understanding how the relinquishment process can work. Future research may seek to draft model provisions for legislation on relinquishment and post closure management; for example, by drawing ideas from the International Energy Agency Carbon Capture and Storage: Model regulatory framework. Such provisions will need to devise procedures and principles for identifying and allocating liability for residual risks. In identifying those residual risks, it may be opportune to evaluate how the mining laws compensation regimes operate to address the on-site and off-site harm caused over the life of the mine and beyond rehabilitation.

## 7.4 Common law mechanisms for addressing foreseen and potentially unforeseen residual risk

The discussion in 7.3 is of statutory mechanisms that may be applied to identifying and addressing foreseeable residual risks. However, there is no assurance that these statutory provisions in addition to the central mechanisms of the mining and environmental protection legislation will always work effectively to address all foreseeable risks. Clare Ward has explained the difficulties of predicting, during the operating life of the mine, the post-production harm that may arise and need to be addressed by rehabilitation processes.<sup>786</sup> Ward considers the potential for pursuing statutory criminal liabilities and common law civil liabilities as means of making a mining operator accountable for harm from mining activities that may become apparent after production has ceased and the resource tenure has been relinquished. We note here Ward's discussion of the common law civil liabilities, being the causes of action in negligence, nuisance and breach of statutory duty.<sup>787</sup> All of these courses of action are difficult because of the high costs of superior court litigation, especially if litigants are acting in an individual capacity.

*Negligence:* Plaintiffs must show that the defendant owed them a duty of care that was breached and the breach caused the plaintiffs' loss. To succeed, the plaintiffs must further show that a 'reasonable person' in the miner's position would have foreseen that their conduct posed a risk of injury to persons like the plaintiffs and would have taken measures to avoid that risk. It can be a significant challenge to show that the type of harm that has occurred was foreseeable at the time of the operation and that reasonable measures could have been taken to avoid it.

*Nuisance:* Plaintiffs must show that the defendant's actions were an unreasonable interference with the exercise of recognised public rights (e.g. use of public places) or an unreasonable interference with the plaintiffs' use or enjoyment of their private land (that is, the interference was unreasonable in that a plaintiff should be able to enjoy the exercise of their public rights or use of their own land). As liability in nuisance is strict, the plaintiff does not need to show that the defendant's actions were unreasonable but, as with negligence, the plaintiffs must still show that the interference was a reasonably foreseeable consequence of the defendant's actions.

<sup>786</sup> Clare Ward, 'Miners' liability to redress reduced water quantity and quality after mine site closure: A case study of the Collie Coalfields in Western Australia' (2015) 32 *Environmental and Planning Law Journal*, 455 at 468.

<sup>787</sup> *Ibid*, 455 at 471-2.

*Breach of statutory duty:* Plaintiffs must show that the defendant owed a statutory duty to a class of persons that included the plaintiffs and that the breach of that duty has caused harm to the plaintiffs. Liability is strict and the foreseeability of the harm as an element of the cause of action will depend on the statutory duty.

It is apparent that, in relation to each cause of action, a defendant may plead that they have acted in accordance with regulatory authority. If proven, this may be a defence to a claim for breach of statutory duty and for a case in nuisance but it would not be a defence to a case in negligence if the action was shown to be negligent. The remedy for a successful plaintiff may be damages to compensate for their loss or, if damages would be an inadequate remedy, an injunction ordering the defendant to do or refrain from doing something; for example, a court could order certain measures to be taken by way of rehabilitation of the affected land.

While it is possible that these common law causes of action could be a course of last resort for aggrieved members of a community impacted by residual risks manifesting during or after rehabilitation, they are onerous procedures. A key point to take from this brief consideration is that the requirements for rehabilitation should, as a matter of public policy, be designed in law as public statutory duties owed to the class of persons impacted by the mining activity and dependent on effective rehabilitation for post-mine uses of the land.

## 7.5 Chapter 7 conclusion and comparative analysis

The transition from closure and rehabilitation to relinquishment and post-relinquishment management of residual risks is not well practised or understood. The post-mine operation stage is unusual in that the influence of mining and environmental law (other than for ongoing contamination issues) largely dissipates and resulting rights are found in a patchwork of other related areas of law and policy, common law and social convention.

This chapter has considered what options there are for post-operation management, especially to address potential shortcomings in rehabilitation through the corporate social licence to operate and government step-in powers. Before relinquishment, government may exercise its step-in powers to rehabilitate a site and cover the expense by a bond or other legal means of recovering the costs from the resource tenure holder. If there is land and water contamination, the contaminated sites legislation establishes a clear set of principles and procedures for identifying the contamination and allocating liability for remediation or, if no responsible party can be found, for transitioning that responsibility to government. There are also laws providing for the rehabilitation of legacy and abandoned sites, though little experience with using them.

There are also a range of laws that assist in identifying and, perhaps, addressing identifiable residual risks. These laws often suffer, though, from a loss of legal connection between the former mining tenure holder and those in the community impacted by the emergence of residual risks. One solution to maintaining that connection may be to legislate a post-production licence that is allocated to the mining entity on relinquishment of the production tenure. Where soft law and a social licence to operate do not formulate clear propositions of accountability, such a tenure could both provide legal authorisation for post-relinquishment monitoring rehabilitation activities as well as clearly identify where legal responsibility can lie for the emergent residual risks, and financial resources to apply to the monitoring and rehabilitation tasks.

There is greater uncertainty about addressing residual risks that may be unforeseen at the time of relinquishment, with questions about whether the common law of tort can address such circumstances because tortious liability relates mainly to harm that is reasonably foreseeable at the time that the operations are undertaken. That may be different, however, if the obligations to rehabilitate are strict liability statutory duties expressed to be owed to the communities that surround or succeed the mine closure.

**7.5(1) Future Research Point**

The common law causes of action are burdensome to pursue but can provide an important last resort for aggrieved communities suffering from unfulfilled rehabilitation commitments because the remedies can provide damages for loss and orders to do or refrain from taking certain actions. Future research could explore the expression of the mine operators' ultimate duty to rehabilitate as a statutory duty owed to the communities that surround or succeed the mine closure. This could open the way for the community to bring judicial proceedings for civil liabilities for a breach of statutory duty if the duties are not fulfilled and that leaves a legacy of harm.

**7.5(2) Future Research Point**

An area that is notoriously hard to regulate, and so often isn't, is the social transition that comes with closing and rehabilitating a mine site. Particularly in areas that have developed entire townships based on a mining community (as in Queensland's coal communities, for example) the need for collaborative closure that involves the community is critical. Research which explores how to guide this social transition through law and regulation will be valuable for these communities in decades to come. As the legislation will need to endure, an aspect of the research will be how to create heads of regulation making powers and policies (statutory and non-statutory) that can create the flexible means of updating legislation without statutory amendment by Parliament. Both forms of regulatory influence must be consistent with the terms of the statute but also facilitate the social licence to operate as a means of encouraging regulatory innovation.

## 8 Iluka Case Spotlight

### 8.1 Introduction

This case spotlight is aimed at providing a succinct example of some of the delays and complications that can arise in the mine closure, rehabilitation and relinquishment processes in Western Australia, outside a State Agreement. It will demonstrate the ways legal and scientific uncertainty, negotiating closure conditions and transitioning to future land use can place competing pressures on the process. By the time legal requirements are met, proper community consultation has occurred and agreement has been reached between stakeholders, rehabilitation and repurposing is likely to be a multi-decades long process.

### 8.2 Context

The Iluka South Capel mine site began to close in 1981 and ceased mining and processing operations entirely by 1999; the site is currently in care and maintenance.<sup>788</sup> The South Capel site is a total of 1114 hectares, with the Capel Wetlands site totalling 319 hectares, comprised of 35 hectares of freehold land owned by Iluka, and 284 hectares of State land leased from the WA Department of Biodiversity Conservation and Attractions (DBCA).<sup>789</sup> Since 1981 there have been parts of the site that have been utilised for non-mining use. The Capel Wetlands themselves were designed and constructed by a contractor to Iluka and the Capel

<sup>788</sup> *South Capel Remediation Project – South Capel Site 'Works Approval Application Supporting Document'* (2018) 6.

<sup>789</sup> *Iluka Resources Limited South Capel Remediation Project 'South Capel Revegetation Management Plan'* EPBC 2018/8250 (2019) 8.

Wetlands education centre began operation in 1985.<sup>790</sup> In 2003, significant decommissioning and demolition of production facilities was undertaken. In 2018 a Remediation Action Plan was developed (discussed in detail below), followed by a risk assessment, however it focused on containment of contaminating by-products of the South Capel site and did not significantly consider the Capel Wetlands area.

FAWNA, a not-for-profit corporation that rescues and rehabilitates native wildlife, is seeking to have a parcel of rehabilitated land divested to it (or alternatively tenured for a long-term lease) for the creation of a wildlife hospital and biodiversity park.<sup>791</sup> The site proposed by FAWNA is the previously rehabilitated Capel Wetlands area, which has existing infrastructure from when an education centre operated on the land until 2008.<sup>792</sup> FAWNA are hoping to acquire a long-term lease for the entire 300 hectare Capel Wetlands site to be used as a biodiversity park; they currently have a short-term use agreement to use a 42 hectare area for a possum sanctuary.<sup>793</sup> That site sits on land which Iluka leases from DBCA, and FAWNA proposes that tenure be transferred to it.<sup>794</sup>

### 8.3 Relinquishment process

The relinquishment process for the Capel site provides an interesting example due to its complexity and the intersection of multiple government authorities. DMIRS and DBCA have been working, and continue to work, cooperatively with Iluka and each other to determine how rehabilitation should progress and when, if at all, parts of the site can transition to a post-mining land use and tenure.

Whilst there are high-level legal objectives set by mine closure and rehabilitation plans, breaking those down into scientific standards that meet the expectations of State and local government as well as surrounding communities and industry bodies is far more complicated. The requirements need to be certifiable and are unique to each site. Completion criteria often require scientific trials to be conducted to determine what is going to be achievable and sustainable long-term.

Mine closure plan objectives will be used to set the overarching aims as DMIRS, DBCA and Iluka undertake negotiations to determine what the final rehabilitation criteria are. DMIRS will give final written confirmation of those criteria. Iluka are yet to receive that final written confirmation and negotiations are ongoing. The environmental condition of the mine site must also meet Department of Water and Environmental Regulation (DWER) and Environmental Protection Authority (EPA) Guidelines before achieving relinquishment.

However, the process is notably different for a transition to an agreed post-mining land use as opposed to relinquishment back to the State. When relinquishing rehabilitated land, it may be necessary to show that the state of the land is self-sustaining and will not require significant ongoing management of mining impacts. With a post-mining land use such as the biodiversity park proposed by FAWNA, it is planned and expected that the new land operator (FAWNA) will continue to manage the land. In this way, the land must only be rehabilitated to the point that it is suitable for that post-mining land use. This can allow the implementation of that new use to precede relinquishment, and through said implementation the acceptability of the new use is demonstrated.

### 8.4 Rehabilitation conditions

DMIRS and DBCA work together to determine an agreed set of standards for each mine closure or rehabilitation condition, although as mentioned above final conditions have not yet been agreed by

<sup>790</sup> Syrinx 'Iluka North Capel' (Website, 2006) <<https://www.syrinx.net.au/portfolio/iluka-north-capel/>>.

<sup>791</sup> FAWNA Inc. 'Wildlife Hospital and Kaatijinup\* Biodiversity Park – The original Concept' (2021) 1.

<sup>792</sup> Ibid.

<sup>793</sup> Ibid.

<sup>794</sup> Ibid.

negotiation with Iluka. DBCA will be responsible for conducting testing (independent of the lessee, Iluka) to ensure that relinquishment conditions have been sustainably met.

Iluka acknowledges that its current obligation is to complete rehabilitation of State Forest land back to State Forest in accordance with agreed rehabilitation criteria, which are yet to be finalised with DBCA and DMIRS. Consideration of alternate land uses, such as that proposed by FAWNA, are welcomed by Iluka if they can realise improved environmental and community benefits.

## 8.5 Repurposing prospects

The question of what the ultimate rehabilitation outcome of the Capel site will be is not entirely settled, despite FAWNA's plans for a biodiversity park.

All involved parties want to minimise residual risk and any unforeseen perpetual management liabilities. Any foreseen perpetual management liabilities will need to be assigned and agreed by negotiation between DMIRS, DBCA and Iluka. The Departments' position will be informed by any pre-determined agreements or expectations set out in the mine closure plan. However, residual risk management is rarely addressed in mine closure plans and Iluka's Capel site is no exception. Therefore, any post-mining land use that allows the beneficial usage of the site to outweigh any costs of management is preferable, such that the land is a net asset rather than a liability.

FAWNA are seeking to have the process of rehabilitation and subsequent certification expedited so that they can be granted a lease over part of the site (details of which are provided under Context). However, Iluka has proposed that a preferable outcome would be a process of progressive land use transition, with Iluka remaining responsible for achieving rehabilitation criteria over the long term. This would be dependent on FAWNA submitting an alternate land use proposal that is considered feasible and is agreed to by all parties.

## 8.6 Barriers and proposed solutions

Initial rehabilitation work was undertaken when operations ceased and has since stalled due to a combination of factors:

- In the 1990s, potential groundwater contamination caused by by-product was identified as a prospective risk. To mitigate this, Iluka's groundwater licence (issued by DWER) allowed for the abstraction of groundwater to mitigate the migration of contamination downstream, and this remediation is ongoing. In 2007, Iluka reported the South Capel site as being contaminated, as required under contaminated sites legislation. Existing remediation activities to address that contamination are managed under the *Contaminated Sites Act 2003 (WA)* and addressed by Iluka's Remedial Action Plan. Contaminating by-product has now been capped with a bituminous liner, preventing further seepage into groundwater. Groundwater abstraction and treatment is continuing until improved groundwater quality is demonstrated. The Capel Wetlands system acts as a passive treatment system which improves the quality of groundwater. The above strategy is designed to allow for long-term improvement of groundwater quality and minimise Iluka's post-closure liabilities, whilst simultaneously meeting its contaminated sites legislative obligations. However, actually reaching this point is a gradual process and, once the project has been completed, it must still be reviewed and assessed by the Contaminated Sites Auditor before Iluka's liabilities for contaminated groundwater under the contaminated land framework will cease.
- Beyond water contamination, other identified risks are:
  - Fire preventing revegetation from properly 'taking' to the land. To combat this Iluka will be maintaining fire breaks.

- Weeds outcompeting revegetation. Iluka is spraying declared weeds regularly, as well as restricting access to the area.
  - An irony of the relinquishment process that this measure highlights is the idea that all residual risk should be minimised as close to non-existence as possible. For example, a weed in the Capel Wetland area that is being minimised is the Arum Lily. Yet surrounding State forest have rampant beds of Arum Lily, which will spread if management measures ever stop. It raises the question of whether an acceptable risk on unmined land should also be acceptable when rehabilitating mined land.
- The revegetation was initially unsuitable to possum habitat due to species selection, disconnected canopy, predators and grazing of other animals. Prior to mining, the site was a pine plantation with minimal remaining native vegetation. To combat these risks Iluka restricted access to the area and continued infill planting as required. They carefully studied and improved their revegetation methods.
  - Whilst the above mitigation and management strategies reduce the risks, they cannot entirely eliminate them and so continual adaptive management approaches are expected. It again raises the question of what level of risk will ultimately be agreed as acceptable to facilitate a transition to post-mining land use.

In some instances, being slow to act due to uncertainty may exacerbate negative outcomes, such as groundwater contamination due to untreated by-product dumping. Delays in developing an effective remediation method give those untreated by-products additional time to seep into the groundwater. However, the way in which these issues are addressed must be conclusively agreed so that any residual risks or long-term liability can be apportioned. It is in the interests of the State that as much potential risk is minimised and the site is sustainably rehabilitated before it is relinquished, so State stakeholders (DMIRS and DWER) generally prioritise thoroughly planned remediation over expedience.

## 8.7 Conclusion

Iluka's Capel Wetlands site closure and transition to a post-mining land use highlights many of the (often unavoidable) delays and complexities in relinquishing a mining tenement in Western Australia. Where there are many interested stakeholders, negotiating and agreeing on what the conditions of closure will be and how they will be measured is a protracted process. The residual risks and future liability mean that neither the tenement holder nor the State are likely to rush into relinquishment without a degree of scientific confidence that rehabilitation measures will be sustainable long-term.

One alternative to a protracted relinquishment process, contemplated in this case spotlight, is progressive land use transition not dependant on prior relinquishment. This implementation of a post-mining land use will allow for State and community confidence in the sustainability of the repurposed use of the site whilst not precluding later formal relinquishment. In this way, the Capel Wetlands case spotlight emphasises the case-by-case nature of relinquishment in Western Australia and the inherent difficulties in reaching stakeholder agreement in matters of rehabilitation, but also suggests a potential path forward that is centred on progressive repurposing.

## Stage 3 Report

# 9 The Regulatory Experience

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## 9.1 Introduction

This chapter of the Report provides a snapshot of the experiences of stakeholders who use, implement, or are impacted by, mining regulatory frameworks in Australia. The stakeholders are spread across a range of areas, and include regulators within government and industry, advocacy groups, peak industry bodies, and local government authorities. The purpose of this section of the Report is to draw out key insights and reflections upon the functionality of regulatory frameworks, how they facilitate mine rehabilitation and closure, and to identify challenges or tensions that negatively impact the intention of these frameworks. Before outlining the questions and methods of data collection, it is important to note this section does not provide a detailed empirical analysis of mining regulation, nor does this section position the 'data' as a representative sample of key stakeholders' views of mining regulation. Rather, this section provides a 'slice' of interpretations of a small cohort of people operating in the mining regulation context.

Three key areas stand out in this preliminary work. First, there is a cultural shift that is moving from a laissez-faire approach to regulation to one based on collaboration between stakeholders; second, the tools of practice, including the role of progressive rehabilitation, financial incentives and transparency of information require significant attention; and third, learning and innovation must include Indigenous knowledge around landform. The themes and findings are presented therefore as starting point from which further work is warranted.

This section is presented in three parts. In the first part, the interview questions and process of recruitment is explained, and the method of analysis is also detailed. The second part outlines the main ideas drawn from the interviews; these are presented as key points offered in table format to provide some overall reflections, together with some contextualized information to highlight the intention of the questions. The third part provides a discussion of the interview data in terms of key themes. The concluding part provides some recommendations and reflections on areas for further research.

## 9.2 Research context, data collection and methods

The qualitative component of this project was developed in consultation with the Steering Committee's input. The interview questions were developed from contemporary literature in the field through a scholarly database search and resultant literature review. The questions were developed in the first instance, by the research team, and subsequently, reviewed by the Steering Committee. The questions, while broad, enabled an open ended, but directed interview with the participants generally over a 1-hour period. All interviews were conducted online, transcribed, and then reviewed<sup>795</sup>. The questions were presented in four general thematic areas: historical regulation and contemporary practice, mine closure liabilities and residual risks, mine closure planning and rehabilitation, and finally, regulation and jurisdictional intersection. Each theme presented specific questions, resulting in 17 questions overall, which enabled participants to provide detailed interpretations and reflections on their experiences.

The interview cohort was broad, however all participants had experience with mining regulations, for example, as managers, industry regulators, advisors, or consultants. The interview responses encapsulated

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<sup>795</sup> This project was reviewed and approved by Murdoch University HREC 2021/135.

varied perspectives on the ways in which mining regulatory frameworks enable rehabilitation, repurposing and closure. The research team invited 57 participants with 17 resultant interviews with representatives from Queensland, Victoria and Western Australia. The gender split was to 10 men and seven women. In line with Human Research Ethics Committee regulations, the participants' information is anonymized and, while each participant's key insights may pertain to their experience, the best efforts have been employed to ensure personal anonymity remains.

As stated above, this component of the project provides a 'slice' into people's perceptions and interpretations of mining regulatory frameworks; it is situated as an exploratory study. It is not presented in any way as representative sample that provides 'results' from which to make judgments on the application of regulatory frameworks. The study therefore is 'inductive' by way of searching for patterns and, or repetition of ideas from the study's participants (Miles, Huberman and Saldaña 2014)<sup>796</sup>. The participants constitute a purposive sample (Taylor et al 2015)<sup>797</sup> in terms of targeting those people with knowledge of and experience working with mining regulation. While many other groups could have been included, the study limited the focus to gain some understanding as to how people manage this complex and dynamic legislative and policy context.

All interviews were audio and video recorded, transcription occurred as part of the online interview process, three interviews were manually transcribed post interview. The transcription was checked with the recorded interview for any errors. The interview data has been analysed in two specific ways. First, the interview data was examined in terms of ideas evident in the responses, these ideas were then coded to refine the data to enable further consideration (Saldaña 2014)<sup>798</sup>. The interviews were coded manually and through NVivo 12 Plus software to ensure sufficient detail was drawn out. This was an iterative process with interview data examined several times to ascertain patterns and repetition in responses (Saldaña 2014).<sup>799</sup> This method of analysis enabled both a consideration of common ideas expressed by the participants, and those that differed markedly. The second level of analysis situated the ideas around key themes that underpin the ideas discussed in the interviews. Accordingly, the themes have been developed through the researcher's interpretation of the ideas in the interview data. This form of qualitative analysis is accepted practice in social science-based research (Miles, Huberman and Saldaña 2014)<sup>800</sup>.

### 9.3 Interview data

Before discussing the key themes that emerged in the analysis, it is important to situate the key ideas drawn from the interviews. As stated, 17 interview questions targeted a range of aspects of mining regulatory frameworks that comprised the interview, not all participants had experience or views of each question. The interviews provided a rich source of data and, as such, provide a context in which to view the themes that are discussed in the next section. For ease of presentation, a sample of interview data is presented in table format with a representation of the ideas raised.

The first group of questions addresses historical regulation and contemporary practices. The intention was to draw out insights around the implementation of regulatory reforms and whether participants found the reforms as adding ambiguity to the process. Questions also covered the intersection between pre and post mining land use; this aimed to capture whether the transition over the life of the mine is clear. The third question considered the implementation of progressive rehabilitation; the fourth question inquired as to

<sup>796</sup> Miles, MB, Huberman, AM and Saldana, J, 2014. *Qualitative data analysis: a methods source book*. Sage: Thousand Island, USA.

<sup>797</sup> Taylor, S, Bogdan, R and DeVault, M, 2015. *Introduction to Qualitative Research methods*. Wiley and Sons USA (ebook).

<sup>798</sup> Saldaña, J, 2014. Coding and Analysis Strategies. In: *Oxford Handbook of Qualitative Research* (P Leavy ed). OUP NY, pp. 581 – 602.

<sup>799</sup> Ibid.

<sup>800</sup> Miles, MB, Huberman, AM and Saldana, J, 2014. *Qualitative data analysis: a methods source book*. Sage: Thousand Island, USA.

whether there are appropriate levels of transparency on the part of corporate decision makers, and the final question asked for reflections on the ways in which Indigenous cultural heritage is embedded in regulatory frameworks.

The second category of questions covered mine closure liabilities and residual risks. The questions asked whether the regulatory frameworks have strong enough mechanism to manage long-term rehabilitation and whether the frameworks are flexible enough to adapt to mine site specificity. Further questions considered the importance of an 'end point' of company liability, and the use and effectiveness of financial bonds. And a further question covered the role of mine closure plan and Indigenous cultural heritage. The table below (Table 9.1) provides a snapshot of responses to each question to provide context for the expanded discussion in the following section.<sup>801</sup>

**Table 9.1 Questions and responses: historical regulation & contemporary practices**

Interview question	Responses
Confusion and ambiguity	<ul style="list-style-type: none"> <li>Regulatory frameworks are written for industry, those outside stakeholders find them confusing and ambiguous, with multiple levels of intersection between rehab, water and land management (AG)</li> <li>Nobody understands who is doing what or regulating what in WA because it's not clear if somebody else was going to regulate it. (IR)</li> <li>Local governments in mining regions find the framework is pro development and excludes significant action on our part (LGAR)</li> </ul>
Progressive rehabilitation	<ul style="list-style-type: none"> <li>There needs to be a clearer approach to signing off on progressive rehab; the assumption is one of progressive closure not progressive rehabilitation (IR)</li> <li>It's really interim rehabilitation because the final landform is unknown (GR)</li> <li>There is an incentive to move earth around, the link between moving earth and the 'greening' part is not clear; continuously moving earth (IR)</li> </ul>
Corporate transparency	<ul style="list-style-type: none"> <li>The new regulatory framework in QLD has set up outward facing reporting for rehabilitation ... this is very new and a work in progress, it is hoped this will improve transparency for mining companies (PIB)</li> <li>There's no real transparency as to the actual liabilities and costs companies are holding. The corporate behaviour is driven by shareholders not government regulation. (AG)</li> </ul>
Indigenous cultural heritage	<ul style="list-style-type: none"> <li>Marginal, not good enough, while there's a heritage register, many sites are not registered, often the protection of cultural sites appears to be worked out between the Traditional Elders and the company, with minimal oversight from the regulatory framework. (LGAR, AG)</li> <li>While there are cultural heritage management plans, QLD laws are relatively strong, more work needs to be done in this regulatory space. (GR)</li> </ul>

## Section 2

Mechanism strength	<ul style="list-style-type: none"> <li>Imperative to have strong mechanisms to manage these long-term risks and liabilities ... that mining industry has shifted a long way from getting away with mining and flipping mines on to another entity and leaving a large and difficult 'mess' for the community. (GR)</li> </ul>
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<sup>801</sup> Key: Industry Peak Body (PIB); Advocacy Group (AG) Government Regulator (GR), Industry Regulator (IR) Local Government Area Representative (LGAR).

	<ul style="list-style-type: none"> <li>• WA does not have the same reform agenda as the eastern states. While WA has implemented the MRF, there is not enough evidence to demonstrate whether the regulations are strong enough (PIB)</li> <li>• There is no agreement across government (Vic) on what constitutes ‘acceptable liabilities’ and how these will be managed into the future (GR)</li> </ul>
Flexibility and end point of liability	<ul style="list-style-type: none"> <li>• It is a fine balancing act to manage the regulatory field over the life of the mine. There needs to be operational flexibility as this is a ‘dynamic space’ that evolves over a very long period. (PIB)</li> <li>• An end point for company liability is imperative otherwise there would be no incentive for business. (GR)</li> <li>• Companies have to protect their social license to operate and therefore it’s important to show how they close the mine and do a decent job (PIB)</li> </ul>
Financial mechanisms	<ul style="list-style-type: none"> <li>• The history of bond payments is that they do not in any way actually cover the costs of risks or liabilities. The problem is you don’t want the bond to be excessive as the companies would not be able to borrow or work – no bank will loan money with such a risk base. There is need for granular bond calculators as costs are often hidden and liabilities are unknown. (AG)</li> <li>• CPR generate perverse incentives to do minimum standards; or the company has paid so we can ‘cut and run’ and the government can fix the problem (GR)</li> </ul>
Closure plans and Indigenous cultural heritage	<ul style="list-style-type: none"> <li>• Needs a much higher visibility and be central to land use agreements (PIB)</li> </ul>

Section 3 and section 4 of the interview schedule cover topics on mine closure planning as a process for rehabilitation and the interaction between state and Federal government regulatory frameworks. The questions in section 3 asked participants to reflect upon procedural aspects of regulatory requirements, their clarity and timeliness. Whether frameworks enable discussion with all stakeholders around rehabilitation and repurposing of mine sites, levels of discretion and power for regulatory agencies and whether community can effectively ensure closure plans are followed. Section 4 considered the role of government and asked participants to reflect upon duplication in the regulatory frameworks between different levels of government; whether there is sufficient transparency in government regulatory agencies’ decision making, and finally, what thoughts people have on the implementation of national standards to regulate mine rehabilitation, repurposing and closure. A sample of the comments to these questions are provided in Table 9.2.

**Table 9.2 Questions and responses: mine closure planning & government interactions**

Questions	Responses
Clarity of MCP	<ul style="list-style-type: none"> <li>• Discussions at the beginning should include repurposing, closure planning is a continuation of rehabilitation restoration planning, and not actual closure (IR)</li> <li>• The guidelines that cover closure planning are clear with areas open for negotiation, but the view is that these do not effectively cover what closure planning should be covering; while the plan is in place knowing how to get there is not clear at all for miners (PIB)</li> </ul>

	<ul style="list-style-type: none"> <li>• There needs to be an iterative mine closure planning process not a linear process, a different mindset is needed, things are improving, we are not there yet (GR)</li> <li>• Mine closure plans do not help with relinquishment of the mine, there is no guidelines to assist, we don't really know how to do this (IR)</li> </ul>
Stakeholder engagement and participation	<ul style="list-style-type: none"> <li>• There are certainly community guidelines for community consultation, however this is not where regulators operate, regulators develop work plans and rehab and closure plans, but the community does not have access to these practices (LGAR)</li> <li>• There are protocols for companies to liaise with local communities, but this is not always well handled and takes significant time and effort for communities (IR)</li> </ul>
Regulatory power and discretion	<ul style="list-style-type: none"> <li>• Regulators have the power to ensure the MCP is adhered too, sometimes however they do not display courage and at times politics can intervene</li> <li>• The regulator has power, it's a lever to pull ... if they don't get their bond back it's pretty serious</li> </ul>

**Section 4 Responses**

Regulatory Duplication	<ul style="list-style-type: none"> <li>• There is duplication, this is most evident with the WA participants at government regulator level. There's duplication at the regulator level, duplication in the completion process and there's myriad of technological issues, soil, water, radiation all duplicated in various agencies. There needs to be clearer delineation as to which department is responsible of what and which department is the lead.</li> </ul>
Government transparency	<ul style="list-style-type: none"> <li>• Several people in WA and Vic argue there is no government transparency in terms of decision making, some view the state agreements as too hidden, government agencies may engage in sham consultations – can be a ring of silence until a decision has been made; can be cabal and silos of people who make decisions and these inner workings are not revealed, many therefore do not understand what is going on in terms of decisions. (IRs and AG)</li> </ul>
National standards	<ul style="list-style-type: none"> <li>• The participants did not support the Federal government developing national standards for rehabilitation and closure, almost one third (5) people commented that national principles could be developed however this raised concerns regarding increasing levels of bureaucracy without any clear outcomes</li> <li>• Significant agreement that the state regulators could work more closely sharing lessons and problems; everyone agrees the mines are different, the conditions are different, but there needs to be some consistency on the fundamentals around mine closure, rehabilitation and repurposing.</li> </ul>

The above points highlight a range of views that demonstrate the complexities involved with developing, implementing and monitoring mining regulatory frameworks. Moreover, these points also indicate a diversity of views and interpretations from the respective state jurisdictions. This raises several points for consideration. First, there is a common response from Western Australian industry regulators and advocacy groups that the framework requires significant reform. This is predominantly in terms of the relationship between government agencies and the view that agencies do not share information or appear to *'work together'* in implementing and monitoring regulatory frameworks. There was also replicated in the Victorian

case with participants commenting on the outdated ‘*secrecy component*’ that needs to be addressed. All participants from Victoria commented on the problematic nature of this aspect of mining legislation. The final area for consideration drawn from the ideas above is the relationship between LGAs, mining regulators and industry. The common theme in this context is that LGAs are powerless to intersect in the implementation and monitoring of regulatory frameworks. Accordingly, this leaves LGAs in a marginalized position, with little to no power, but having to live with ongoing mining legacies, residual risks and for those in remote areas, declining populations willing to live in the area.

## 9.4 Emerging themes

The interview data indicates that the regulatory frameworks are enabling a shift from a laissez faire, transactional approach to one based on collaboration and cooperation. However, this shift is tentative with many complexities and challenges apparent. Moreover, the shift towards a collaborative approach is more evident in one jurisdiction, Queensland, with Victoria and Western Australia facing significant hurdles around liabilities, risks, and responsibility. This is not to suggest that Queensland is without hurdles; rather it is simply to say that Queensland has, according to the participants, moved towards building collaborations through strong reforms more so than Western Australia and Victoria. The interviews highlight jurisdictions are aware of these challenges, and more importantly, there is tacit agreement that ‘*things will not stay the same*’, as communities are demanding more input into the rehabilitation, repurposing and closure protocols of the mining industry. As previously stated, the themes drawn from the interview data provide insight into the challenges all jurisdictions face, and they also highlight areas of positive ‘growth’, while many subsequent or secondary themes emerged, the themes presented provide the ‘core’ areas for further intervention.

The themes emerge through an iterative process that involves transcription, coding of the interview into ideas – as presented in the above tables – then grouped into underlying concepts and themes. Developing themes from the coded data is simply a way to bring together a range of ideas under one main concept, themes are often unspoken but act to solidify a range of points. The first theme provides an example of this process. Comments such as, ‘*the older taken for granted practices are no longer acceptable*’, the ‘*values of the community have shifted*’, a ‘*turning point between mining regulation and working with industry and community*’ and ‘*a major step forward given where we were, but there’s a long way to go*’. These ideas signify considerable change in attitudes, beliefs and material practices, and fit well with the definition of culture by many researchers (see for example, Spencer-Oatey 2012<sup>802</sup>, Sovocool and Griffiths 2020<sup>803</sup>). This analysis is built around three core themes; first, cultural transitions and embedded path dependency; the second theme refers to tools of practice and relationships, and the third targets learning and innovation.

## 9.5 Cultural transitions and embedded path dependency

The core themes of cultural transitions and embedded path dependency relate to a range of reflections from all participants. As stated above however, the participants did not in and of themselves use these terms, rather the terms provide a way to position the ideas in a broader discussion. Culture and mining resonate in the Australian context around the ideals of development, wealth and, according to historical research, a sound moral standing. In a study by Trigger (1997) that covers the history of mining and culture in Western Australia, he notes the then Premier of WA stating that development of resources “gives individuals and nations the chance to reach for the stars ... and a modern country stripped of minerals is virtually stripped of civilization” (cited in Trigger 1997: 164). Mining in Australia therefore feeds into the norms and values that

<sup>802</sup> Spencer-Oatey, H. (2012) What is culture? A compilation of quotations. *GlobalPAD Core Concepts*. Available at GlobalPAD Open House <<http://www2.warwick.ac.uk/fac/soc/al/globalpad/interculturalskills>>.

<sup>803</sup> Sovocool, B and Griffiths, S, 2020. Culture and low-carbon energy transitions. *Nature Sustainability* Vol 3, pp. 685-693.

structure how we see ourselves as Australians. It is this underlying and often unspoken sentiment that underpins the transitional space in which mining regulatory frameworks are embedded.

Path dependency also frames these cultural shifts, and consequently, the institutional settings that develop, implement, and monitor regulatory frameworks. Path dependency is a concept used in public policy and economic analysis which aims to explain how institutional processes and historical events intersect with legislation, regulation, and public policy, in effect, highlighting how choices can constrain possible future decisions (see Howlett 2009<sup>804</sup>; Peters 2012<sup>805</sup>). Institutional paths become dependent through ‘positive feedback’ which solidify current practices and reinforce the ‘status quo’ (Kay 2005)<sup>806</sup>. In the case of mining, such benefits include mining royalties paid to the state, economic benefits for the nation, employment, and so forth. One example, provided by the Minerals Council of Australia, reinforces the importance of mining for the Australian economy. Accordingly, in 2021, \$33.9 billion in minerals, metal and energy commodities accounted for 69% of export revenue which provided the foundation for a trade surplus (MCA 2021)<sup>807</sup>. This example illustrates transitions in mining and the implementation of regulatory frameworks that encourage ‘new’ approaches to rehabilitation, repurposing and closure intersect with already established ‘paths’ that may see changes occur at an incremental rate over long periods of time (Peters 2012)<sup>808</sup>. This illustration is not to suggest that mining and regulation are not adaptable to change; rather that changes and, thus transitions, do not occur in isolation, there is no blank slate from which to situate and embed regulatory protocols. While reforms to legislation and regulation change the process for new mines, these are overlaid with the history of the industry and its relationship with the Australian public.

One participant highlighted the importance of developing sound regulatory frameworks and the cultural shifts needed to embed these changes in the following quote. I use this statement as a pictorial reference to set the scene for the following discussion. Moreover, this depiction resonates with image of Australia as a wide-open land, with wonderful coastline and an ‘outback’ that is available for all to share. The participant’s reference is for Western Australia; however, I suggest it also resonates to the rest of the country. In response to the question of progressive rehabilitation the participant commented:

*“you know, at some point someone's gonna have to do something, because what I envisage in the next you know, not far distant future is that we'll have a coastal strip around the entire coast of WA and the whole interior is gonna be a giant hole in the ground”.*

These sentiments reflect the points raised by Trigger (1997)<sup>809</sup> that, as a nation, we sit in-between the image of development and growth while providing a clear regulatory framework that ensures future generations may also participate in the wide-open spaces of Australia’s interior.

In terms of cultural transitions around building a more collaborative approach, most participants described significant changes over the last 20 – 30 years in mining, rehabilitation and developing effective mine closure planning processes. There was broad agreement that things are moving in a more collaborative and sustainable direction, that older practices ‘*didn’t cut it anymore*’. That a different value base is developing and the mining industry, broadly speaking, recognizes that the regulatory environment was not appropriate. The comments below from a range of participants provide a good summary of these sentiments.

<sup>804</sup> Howlett, M. (2009) Process-Sequencing Policy Dynamics: beyond homeostasis and path dependency. *Journal of Public Policy*, Vol 29, 241-262.

<sup>805</sup> Peters, BG, 2012. *Institutional Theory in Political Science*. Continuum International Publishing: NY.

<sup>806</sup> Kay, A, 2005. A critique of the use of path dependence in policy studies. *Public Administration*. Vol 83 (3) pp. 553 – 57.

<sup>807</sup> Mineral Council of Australia, 2021. *Mining exports are the foundation of Australia’s economic prosperity*. <<https://www.minerals.org.au/news/mining-exports-are-foundation-australia%E2%80%99s-economic-prosperity>>.

<sup>808</sup> Peters, BG, 2012. *Institutional Theory in Political Science*. Continuum International Publishing: NY.

<sup>809</sup> Trigger, DS, 1997. Mining, landscape and the culture of development ideology in Australia. *Ecumene* Vol 4 (2) pp 161-180.

*Mine closure as originally envisaged according to the expectations ... in place 25 years ago ... this creates a significant regulatory problem for industry, but also significant reputational problem for industry ... Issues that perhaps weren't envisaged 20 years ago ...and increasingly, now, the value proposition of mining is ensuring that we enable our post mining landscape to be available for other things ... There's a strong community social aspect (IPB)*

*I believe there is a clear mark between old and new and I think it's a cultural mark that is the turning point. It's a change in an outlook between the role of the state in its regulatory function versus the industry activities. Whereas I'd make the general observation that the state and the industry are fellow travellers (GR).*

*Rehabilitation was more or less buried under the heading of incidental activities, you know, which is a minimalist way of describing rehabilitation. (GR)*

These three points suggest shifting ground in the cultural norms around the practice of mining and the regulatory frameworks that approve and monitor mine practices. The views indicate the industry has shifted in terms of positioning mining as a 'temporary land use' (Keenen and Holcombe 2021)<sup>810</sup>, to grasping mining as a long-term proposition that incorporates multiple networks and relationships which intersect all aspects of society. Moreover, these points indicate that in some areas, government regulation and its implementation is moving towards a relational dynamic with industry, one based on the ideals of co-design instead of a combative approach.

One participant from Queensland highlighted the level of cultural shift and the process of reform. These interpretations also indicate the shift away from a laissez faire approach towards mining regulation and a collaborative endeavour that works with a network of stakeholders to generate effective outcomes. As noted by the participant ...

*there was little transparency to the public ... this is a complex transition, with learning around individual sites, and communities wanting to see what the reforms will deliver ... you can't just flick a switch ...before the reform there was a lack of public facing reporting collectively from the department and a lack of confidence in what the industry was doing ... in this transition reporting needs to continue and the new Rehabilitation Commissioner takes on this role.*

The important reflections in this context highlight that cultural transitions are slow, often incremental, need to be embedded in organizational practices that enable constant review.

The interview participants however did not all agree with the proposition that regulatory frameworks, government agencies and industry are shifting cultural ground towards a more collaborative approach. Accordingly, one participant from a regional LGAR commented: *The Mining Act (WA) overrides everything, we are hamstrung ... we can't get access to industrial land ... the regulatory process is very weak, the industry has the whip hand over government.* These comments suggest that overriding regulatory culture is one of 'development over communities'. A further example of the government regulatory space functioning in a 'transactional' space as opposed to collaborative approach resonated in the responses regarding corporate and government transparency. One participant commented: *'corporate transparency is non-existent or too difficult to find, the larger companies may report, but the smaller ones, there's no transparency ... and there's not enough priority inside government to make this happen (AG).* As highlighted in Table 9.2 above several mining regulators state there is no transparency inside government regulators either. Another Advocacy Group participant's sentiments further reflect these ideas,

*'companies need to be independently audited, to show the actual liabilities for each major asset they hold ... when there's transparency in the marketplace there's an incentive for companies to*

<sup>810</sup> Keenen, J and Holcombe, S, 2021. Mining as a temporary land use: a global stock-take of post mining transitions and repurposing. *The Extractive Industries and Society*. <<https://doi.org/10/1016/j/exis.2021.100924>>.

*manage their risk in terms of transparency to shareholders ... there is no political will to hold companies to account ...'*

While these comments suggest the cultural basis for regulatory frameworks is still functioning as a transaction between the state and industry, these comments also provide consideration for regulation to address these concerns.

Cultural transitions are also evident in the responses around Indigenous cultural heritage and the intersection with the development of mine closure plans (MCPs). As stated in Table 1 above Indigenous cultural heritage has only been addressed in a marginal sense in the implementation of regulatory frameworks and the development of mine closure plans. All participants commented that the current approach is not as good as it should be. Some further reflections from a peak industry body participants emphasizes the importance of this cultural shift that actively acknowledges and engages with Traditional Elders:

*It's not unique at all to the closure pieces ... it's about the whole thing ... there's opportunity there in terms of the post mining land uses and being able to sort of synergize those with their cultural heritage outcomes and First Nation management of that land ...; and a government regulator also commented: 'This is not represented well enough ... I would like to see a sort of philosophical approach to the whole exploration mining life cycle ... starting at the front end ...'*

While the participants in the study recognize the importance of embedding Indigenous cultural heritage in regulatory frameworks, all commented this is a complex and long-standing issue that requires government to lead the way and broker more effective engagement with Traditional Owners.<sup>811</sup>

The theme of path dependence emerged through a range of reflections mainly in relation to liabilities, residual risks and managing mine closure plans. As previously stated, path dependence provides a way to grasp how past experiences that can perpetuate the status quo. Path dependence underpins the capacity of regulators to ensure liabilities are obvious and that a clear plan is available to manage long term residual risks. One government regulator stated:

*unfortunately, the industry has been able to get away with the idea that you just mine, at the end, you flip it onto another entity and you slowly go down to a declining corporate capability and you end up with a mess picked up by the community or the environment.*

In effect, this suggests that responsibility for liability resides in capacity of mine owners to move the liabilities onto the next company. Unger et al refer to this as an example of 'pass the parcel' (2020: 98).<sup>812</sup>

A further area where path dependence enables a discussion on liabilities and residual risk refers to capacity of regulators and industry to settle on what is considered acceptable liabilities and what constitutes an acceptable level of residual risk. The intersection between an historical understanding of liabilities and those that meet the newer reform regulations indicate the challenges for all parties to negotiate and agree on the long-term management of liabilities and residual risks. One Victorian government official commented that

*across government we don't actually know what the agreed threshold for residual risk will be ... we don't have an agreement on how we will put (funds) into the future and there's no way a*

<sup>811</sup> This project acknowledges the importance of consulting with Traditional Owners in the context of developing effective mining regulatory frameworks. While this component of the project interviewed a range of stakeholders in the regulatory space, we did not seek at this point to interview indigenous participants specifically. We recognize this is a limitation of the interview process, however, we recommend that engagement with Traditional Owners regarding mining regulation be undertaken in the next round of projects.

<sup>812</sup> Unger, CJ, Everingham, J and Bond, CJ, 2020. Transition or transformation: shifting priorities and stakeholders in Australian mined land rehabilitation and closure. *Australian Journal of Environmental Management* Vol 27 (1) 84-113.

*company is going to bankroll risks in perpetuity ... but developing a sovereign fund that is going to last in perpetuity for risks that we don't agree on ... it just becomes crazy'. (GR).*

This example highlights the challenging nature of the transition whereby the collaborative approach aims to establish thresholds for residual risk such that agreements actually fund ongoing liabilities and residual risks and the established regulatory regime that reinforces the status quo. As the same participant noted: *someone has to take ownership ... or it just carries on and nobody fixes it.*

Reflections on the mine closure planning process also indicate where path dependence is occurring in the regulatory space. An important consideration from a government official refers to the engagement of mining companies to participate in the mine closure plan process. Rather than approach this as a linear process where the plan is developed and monitored over time and signed off; according to this participant

*'miners get this to be an iterative processes; it's a mindset, they know they have to go through cycles of thinking and rethinking, working through ... it's the regulators who have a more linear ... it could be because it's easier to regulate in a stepwise way, so it's really about persuading the regulators to work with an iterative process ... it's about coming on a journey together ... to make sure they actually deliver a good outcome ... but it makes regulation much harder'.*

These reflections highlight the tension that often sits underneath a transition away from older institutional practices. There is no doubt that regulation that assumes a linear path along an agreed trajectory that leads to a specified outcome is more straightforward, and also reflects a more traditional mindset. However, these interpretations highlight that, for regulation to be more effective, moving away from such a transactional approach may bring about more effective outcomes. Similar sentiments were also expressed by participants from an industry peak body:

*the pathway to closure is unclear ... at a high level everyone has the same interests, if I'm going to start something I want to get it rehabilitated but how to actually get there, I don't think anyone understands that yet ...*

## 9.6 Tools of practice

This theme developed through a close examination of the responses to several questions. As the interview questions aim to draw out components of the regulatory frameworks that both enable and constrain rehabilitation and closure outcomes, the questions that targeted progressive rehabilitation, financial mechanisms, areas of transparency and mine closure planning offered some insights into how regulations impact implementation. Moreover, the participants interpretations also provide the possibility to consider areas that could improve the use of these tools. For example, several participants commented that some tools work in theory, but in practice, it is very difficult to make these tools function as they are designed. Tools of practice are, in a sense, the 'nuts and bolts' of mining regulatory frameworks. Together these practices aim to embed sound regulatory practices and clear processes for developing and implementing mine closure plans.

Progressive rehabilitation and preparing for mine closure raise various points for consideration. While several participants found the process provides '*possibilities*' for the future, others found it to be confusing and, at times, wasteful of time and finances. The following comments capture these sentiments.

*Now for the first time the community will have insight into what companies intend to leave behind ... and the other important reforms is that there will be a timetable for progressive rehabilitation that leads to closure ... but we haven't seen it roll out yet, ... so I don't know ... (AG)*

*Progressive rehabilitation in principle is good, but not possible in all circumstances, the way the MRF reductions happen progressive reductions occur there's big financial incentives to do earthworks and big-ticket items ... (IR)*

These reflections indicate the ‘tool’ is based in sound ideals, that in theory, embed the practice to ‘*clean up as you go*’ as one person identified. Most participants certainly agreed it is a good idea, it provides the means to spread the load of rehabilitation over longer periods and requires documentation and incentives to manage the process. In terms of enabling sound outcomes for all stakeholders, it places the onus on the industry to be more mindful of the entire process as opposed to simply focusing on extracting minerals and leaving holes in the ground. However, the participants highlight the complexity involved in implementing an idea that covers such diverse forms of mining. These following reflections demonstrate the levels of complexity that require further nuance and consideration.

*The opportunity to actually say I’m ready to close off that piece of land and sterilize that piece of land by rehabilitating ...that spoiled stockpile ... that doesn’t represent great management necessarily ... they might go back in and mine an area that has previously had a spoil pile sitting on it. The hard rock in those material makes it pretty difficult to sort of rehabilitate it. So progressive rehab, we need to be a bit more innovative in terms of how to approach .... So, for those sorts of operations the bulk of that kind of rehab work might occur towards the end of the mine versus progressively across the mine life ... rather than it should just have to fit. (IPB)*

*There’s unnecessary focus on the wrong aspects, because while we’re talking about these really low risk activities ...there are much bigger, more significant risks in the closure planning space that are not being regulated. (IR)*

*Progressive rehab comes down to understanding how operations work, varies across commodities, it is key to the social license to operate, from a financial and economic point it is important to deliver ... the opportunity to utilize areas when mining has ceased, more financially sound to take from start early, smaller liability. By the time you reach closure it is smaller ... through the surrender process (IPB)*

These ideas highlight several important considerations. First, progressive rehabilitation as it is tied to financial incentives, is accordingly a ‘blunt’ tool that appears to assume a linear, one-dimensional approach to address mining rehabilitation and closure. As an operational tool, it does not appear to accommodate the multiple levels or dynamics that impact mining and communities over the life of the mine. While the participants acknowledge the concept is worthwhile, the delivery is cumbersome. In other words, this tool would benefit from developing more micro-level fine-tuned calibrations that may enable collaborative outcomes between all stakeholders.

Further areas that highlight factors that enhance the regulatory frameworks, but also present challenges were also raised in relation to financial mechanisms and the impact on mine closure planning. While these ‘tools’ are designed to work together the different approaches to the implementation of financial mechanisms raised considerable discussion. First, all participants agreed that financial incentives for mining rehabilitation and mine closure planning is a good and effective strategy. For some participants, the issue is how to manage the scope and implementation of these tools in ways that generate the most effective rehabilitation and closure planning outcomes. It is also important to note that while part of this project considers factors that enable repurposing of mine sites, this was not an obvious area of discussion from participants.

The interview data provided a range of views on the efficacy of financial bonds and the implementation of common pool mechanisms. The overall view highlighted that a hybrid approach appears to be the most effective. Moreover, people readily identified Queensland model as providing the most effective strategy to incentivize and provide some modicum of control in terms of companies not having a bond returned if need be. One IPB participant commented:

*in Queensland there’s a hybrid model with bonds and pooled finances. Queensland has a history of bonds, with incentives along the way to minimize risk as much as possible to reduce end*

*liability rehab ... however, some aspects of implementing the payment made doesn't effectively incentivize as much as it should, this is only being maintained through to surrender process, we are reviewing the figures, the financial the pooled option has been of benefit to companies, new system has assurance no longer to cash back, the pooled system is most efficient.*

While there is agreement that financial mechanisms do incentivize some actions on the part of miners, one of the areas of concern is how to accurately calculate the bond payment. One GR commented:

*the real challenge is to work through what a bond should actually look like to actually meet expectations ... that the mine operator might pull up stumps and not deliver the final outcome and not leave the state with a real problem. It's getting that balancing act correct ... you have to know where your costs are and at the moment... the ways costs are calculated for bonds is just on simple earthmoving and pulling down infrastructure and taking out power lines and all. But that isn't actually where a lot of the costs really are. A lot of the costs are actually in developing the understanding and knowledge, so the calculator needs to become more nuanced in the way that it works. It (the calculation) thinks about all of the issues, and it needs to think about the future.*

One of the major concerns the participants raised in this context is how to develop sound and effective MCPs that adequately address the issue of final landforms. Several participants commented that closure needs to be a design process, one that must be undertaken early on with revisiting along the way. One mining regulator raised a very important issue regarding final landforms. These comments highlight some of the complexity involved in developing plans that have a long-life span. For example,

*there is actually assumed knowledge that the mining landform is stable when it it's not ... it might be stable in one part of the country where you have one type of climate and regime, and you know one type of wind. You know the situation and it's very unstable in another part that might be subject to floods, fires, famines or the rest of it; I find that a lot of people have simply taken the badge of rehabilitation, stuck closure over the top of it, and so a lot of the time they're not talking closure planning. They're talking about rehabilitation planning. (IR)*

### 9.6.1 Learning and innovation

Another important core theme emerged through the interview data in terms of the importance of learning and innovation. This encompasses a broad range of ideas that impact regulatory frameworks in a number of ways. Learning, in this context, includes sharing information, exploring more knowledge and research, developing clear links for regulators between indigenous cultural heritage and the forms of the Heritage Act in respective states, and incorporating greater levels of flexibility in the development, implementation and oversight of regulations. One government regulator discussed the implementation of a 'fit and proper person' record to ensure people involved in the business have a sound track record. Several participants also highlighted the need for more research and knowledge on final landforms – landforms that are more than targeted to topsoil and planting trees.

The complexities involved in increasing levels of knowledge and sharing this knowledge was again highlighted by a Victorian official. Primarily, the point is that it is very difficult for regulators and operators to effectively oversee mine closure plans when there are considerable research gaps in what is currently known. While there is agreement that information regarding what will be left behind is useful, the problem is the regulation insists on information that is not yet known. This was explained as:

*they [operators] have to say how they're going to get that information and they're happy to do that, though, because we don't have a defined in landform it makes it really hard for the operators to more than ARM wave. You know they don't have the opportunity to say how it will be ... they can't say anything with absolute certainty ... we've now got a wretched situation*

*where the regulator is saying you have to tell us what the outcome will be because we want to know it and the operators are saying we can't tell you what the outcome is ...'.*

Learning therefore underpins the capacity of regulators and operators to fully consider how the substantive and procedural components of mining regulation intersect, and importantly, how these function on multiple levels and intersect with other regulations. The above reflection highlights how, through what may seem to be the 'good intentions' of regulators to gather information and ensure a clear vision for the future, can lead to less-than-optimal outcomes, and may render the situation stagnant with little chance of changing the status quo. Perhaps the final comment on the importance of learning in the mining regulatory space goes to one participant's comments on government regulation:

*Yeah, there's massive amounts of paper and all that stuff involved and various reports up front, but once it goes through the mincing machine and the decision pops out the other end, you just look at it, and you wonder how the hell they got to that conclusion.*

Innovation certainly raised several comments regarding how to be more innovative and subsequently flexible with the development and implementation of regulatory frameworks. While previous comments regarding innovation were noted in terms of cultural shifts and the tools of practice, the key area where innovation emerged was in relation to Indigenous cultural heritage. As noted above, all participants commented that not enough was being done to actively ensure regulatory frameworks instil cultural heritage within the mine process. Several people commented that Indigenous knowledge of the landform is different from non-Indigenous knowledge base and an innovative approach would include working with Traditional Owners to collaborate on the possibilities for final landforms. Currently, according to one participant, the process appears to pressure local Indigenous communities to commit to something in the future without considering the cultural significance of the landform. As stated, '*they have to commit to something in the future without a clear vision as to what is possible*'. (AG)

The above discussion of key themes that resonated in the interview highlight both the tensions that underpin this transitional space. These themes also however indicate the significant shifts that are already in place for the sector overall. As previously stated, these themes are positioned as a 'slice' of ideas and reflections that can provide a basis from which to consider, propose and design strategies that may further embed the move towards collaboration between all sectors. All of the participants highlighted this is a complex field, some had stronger views in particular areas, while others articulated the importance of building collaborative, transparent and co-design approach. Moreover, all participants articulated their passion and commitment to building strong relations across industry, government and the broader community in order to generate effective, sound and sustainable outcomes for the future.

### 9.6.2 Recommendations for consideration

The voices, reflections and interpretations of people using or impacted by mining regulatory frameworks highlights further considerations around the detailed outline of these frameworks in the preceding stages of this Report. While the Report points to the legislated requirements across these jurisdictions and the policy guidelines that assist implementation of the legislation, the comments and discussion in this stage 'bring to life' the daily lived experiences of people who have to interpret and implement these legal frameworks. As with any form of legislation, the way in which regulation functions on the 'ground' often renders unintended consequences, and in effect, may generate unforeseen outcomes. This aspect of the project provides a range of areas that shed light on aspects of these frameworks that would benefit from further exploration.

First, the issue of consulting with Traditional Owners is paramount. As highlighted above, all participants state the current situation was not good enough and needs to be far more considered. Primarily, as noted in the Report (section 5.4.2) the intersection between Native Title legislation, Aboriginal Heritage laws across Australia and mining regulatory frameworks requires detailed work. Further, the work needs to address how traditional cultural heritage is protected, access to land is maintained and final landforms are agreed upon.

Moreover, consideration must be given to the documentation of cultural sites for Indigenous Australians, while cultural sites may be registered, this does not mean that all have been captured and thus protected.

A second area that further embeds collaborative approaches is the inclusion of Indigenous knowledge regarding final landforms. As noted above, one participant articulated that a ‘philosophical’ shift is needed; this shift could include strong regulatory protocols that embed indigenous knowledge of land and the way in which land may be returned and subsequently repurposed. This would require more than industry consultation with Traditional Owners and one that has clear legislation that is enforceable. This idea is simply one possible way to ensure that collaborative approaches could be built of the principles and actions of co-design.

The preceding Report also highlights challenges and tensions in terms of the management and oversight of residual risks (Sections 5.4.3 and 7.1). The interview data highlighted several areas of frustration for the participants. Notably, there is no agreed criteria for ascertaining what is an ‘acceptable [residual] risk’ nor is there agreed calculation to quantify and then monetarize the necessary funds that are to be paid by the industry to the state. This raises considerable concern for all parties. Primarily, for the state and thus citizens, the issue is how to ‘afford’ the ongoing management of liabilities. And consequently, how to calculate the level of compensation the industry must pay and for how long. Moreover, this also raises considerable concerns for industry especially around investment and economic development. There is no doubt that mining is integral to the Australian economy and society, therefore developing more nuanced and fine-tuned calibration in the area of ‘risk’ is integral to the shift towards a collaborative approach to mining transitions.

## 10 Compilation of findings & future research points

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### 10.1 Chapter 1

Chapter 1 defines core concepts used in the regulation of the mine life cycle that are relevant to the task of achieving mine closure and provides a glossary of key terms. We distinguish a set of ‘established core concepts’ and ‘evolving concepts’, identifying that there are inconsistent definitions and usages of these concepts, including in legislative provisions. Significantly, the evolving concepts of ‘transformation and transition’ refer to the environmental, economic and social changes effected through mine closure and provide the context for two significant new concepts that have arisen but lack clear regulatory guidance: *repurposing* of mine assets and land forms and *social transitions* in communities where mine closure greatly impacts levels and types of employment opportunities and social services.

### 1.1 – 1.3 Future Research Point

We found that there are several core concepts that are central to the discussion of mine closure but for which there are uncertain and inconsistent definitions and usages? For example, ‘rehabilitation’, ‘restoration’, ‘remediation’, ‘relinquishment’ and ‘residual risk’ have been given specific definitions in some scholarly literature but the terms are not used consistently in legislation and in some industry and government commentary and grey literature. It would help to survey the varied uses of these terms and related concepts across Australian literature and legislation in all Australian jurisdictions and to develop consistent Australian definitions for them with recommendations for the legislative reforms to implement those definitions.

A related aspect of this research will be collating the terminology applied to define the various forms of resource tenures that authorize mineral exploration and production and the associated regulatory authorisations required for implementing those core legal concepts for mine closure. This research can build on the initial glossary of terms compiled at section 1.4.

## 10.2 Chapter 2

Chapter 2 explores the goals and aspirations for mine rehabilitation and closure. It summarises the key legislation of the Commonwealth and each of the three State jurisdictions; Queensland, Western Australia and Victoria to ascertain the legal expression of those goals and the potential future directions for mine closure policy and regulation. We found that the Commonwealth has legislative powers that it may exercise in relation to mine closure but that its relative lack of regulatory experience with mine closure may lead to the conclusion that the Commonwealth has not yet articulated specific and clear goals in respect of mine closure. However, in this report, we have been able only to sketch an outline of the Commonwealth’s key federal leadership powers in relation to mine closure. A better understanding of the Commonwealth’s role and its interactions with the States and Territories requires further research.

### 2.1 Future Research Point

There are significant questions about the current role of the Commonwealth in relation to the regulation of mine closure and what that role should be in the future. In this report, we have been able only to sketch an outline of the key federal leadership powers that the Commonwealth may exercise in relation to mine closure, and the role of the objects and principles of ESD in decision making. We could not consider the detail of the Commonwealth-State interactions in relation to regulation of mine closure or what role the Commonwealth has taken in the Territories, where its powers are greater. Neither have we been able to consider the regulatory experience of the Commonwealth in exercising its powers under the *EPBC Act* to set approval conditions for mine closure. Future research may explore the current and future roles of the Commonwealth in mine closure planning and in ensuring that mine rehabilitation is achieved and mining communities assisted in the social transition that mine closure brings.

In contrast, the States’ legislation in relation to mine closure is far more developed in giving effect to objectives of achieving progressive rehabilitation and mine closure and avoiding financial risks for State governments. These goals are more clearly expressed in Queensland and Victorian legislation, though only Victoria has a specific statement of a statutory objective that “land which has been mined is rehabilitated”. Western Australia tends to rely more on guidelines made under authority of statute to articulate its goals, leaving the statutorily implied goal of the Mining Act (and perhaps of the State Agreements) as focused on industry access to and exploitation of the State’s mineral resources. Future research on these goals could seek to ascertain what importance lies in the clear statutory expression of goals pertaining to mine closure.

### 2.2 – 2.4 Future Research Point

While the goals of mine closure regulation are clearer in the State regimes, the clarity and coherence of the expression of those goals varies between the three States reviewed. Only Victoria has a clear statutory statement of an objective that “land which has been mined is rehabilitated”. While all three States are developing principles of progressive rehabilitation and closure of mines and securing financial provisioning to ensure effective mine closure, future research on these goals could seek to ascertain what importance lies in the clear statutory expression of goals pertaining to mine closure.

## 10.3 Chapter 3

Figure 3.1 gives a simple overview of the range of governmental and non-governmental institutions to be found in each jurisdiction reviewed. While there is a discernible high-level pattern to the broad character of these institutions and the constituting legislation, as well as applicable common law principles, there is significant variation in the detail of the arrangements in each jurisdiction. For example, that is illustrated by the differences in the format of bodies that may hear applications for and objections to the grant of mining leases or licences and environmental authorisations.

For instance, Queensland has a Land Court that can hear such applications and objections for the grant of both mining leases and environmental authorisations in an integrated process. The procedures and capacities of the Land Court apply (apparently) equally to decision-making in respect of both instruments and the Land Court makes recommendations to the different relevant decision-makers. The Land Court can also exercise certain judicial functions, such as determining disputes over compensation.

In contrast, the Western Australian Warden’s Court hears applications and objections for mining leases and can determine certain legal disputes in relation to mining ventures, including compensation of affected landholders, but it has no decision-making function in relation to environmental authorisations other than in so far as objectors may argue for mining lease conditions that protect the land and environmental values that may also be regulated under other legislation, such as pollution control and access to water resources regulated by another agency, in relation to which the Warden’s Court has no real jurisdiction. The other key institution is the Environmental Protection Authority, which manages environmental impact assessment but with a function limited to advising on environmental factors. There is not the same opportunity as in the Queensland Land Court to weigh transparently the competing economic, social and environmental factors. Instead, that role vests only in the Ministers or senior officers who simply issue the instruments and do not need to give reasons.

The structure and roles of the Victorian regime of institutions are different again. While there is a mining warden with modest functions, and certain appeal functions are vested in the VCAT, the key public consultative process is the environmental effects inquiry and report conducted by an ad hoc panel that culminates in advice informing the Planning Minister’s recommendations to the ultimate decision-makers issuing the mining licence and other instruments needed for a project.

The outcomes of the procedures conducted by these institutions in each State may also be accredited to inform Commonwealth decision-making under the EPBC Act. We have not had the opportunity to research and assess the accreditation criteria and evaluate how it is that such different institutional designs can meet the Commonwealth’s accreditation criteria and how this may affect decision-making about mine rehabilitation and closure.

It is important to understand each State’s institutional framework in approaching Stage 2 of the report, which explains in detail the procedures for mine closure planning, rehabilitation and transition. At this stage, it is not feasible to suggest research questions that may be pursued distinctively in relation to the

institutions; it is better to incorporate the institutional arrangements into a research consideration of the extensive procedures explored in Stage 2. The exception to that could be to pursue research on the Commonwealth accreditation of State procedures for environmental impact assessment to identify the core criteria of those accreditation decisions.

### 3.1 – 3.6 Future Research Point

It is important to understand each State's institutional framework in approaching Stage 2 of the report, which explains in detail the procedures for mine closure planning, rehabilitation and transition. At this stage, it is not feasible to suggest research questions that may be pursued distinctively in relation to the institutions; it is better to incorporate the institutional arrangements into a research consideration of the extensive procedures explored in Stage 2. The exception to that could be to pursue research on the Commonwealth accreditation of State procedures for environmental impact assessment to identify the core criteria of those accreditation decisions and whether they may inform design criteria for State institutions.

## 10.4 Chapter 4

Chapter 4 introduces Stage 2 of the Report, which focuses on mapping the frameworks of regulatory instruments and procedures for mine closure and rehabilitation in each of the relevant jurisdictions (Western Australia, Queensland and Victoria), identifying the variations in their design across the three jurisdictions. The chapter outlines six themes for comparative analysis and gives an introductory overview the regulatory frameworks of each of the three States. It presents only one future research question in respect of the role of State Agreements in Western Australia, because there is not much discussion of them in the chapters that follow yet there are important questions around the transparency and accountability of mine closures procedures under these agreements and whether the operation of Part IV of the *Environmental Protection Act 1986 (WA) (EP Act)* provides a sufficient regulatory framework.

### 4.2.1 Future Research Point

The potential for future research on the role of State Agreements and the extent to which they can or should be used in the future for new projects should be addressed in light of the Pilbara Agreements case study. The research planning could open with questions around the transparency and accountability of mine closure processes and whether the operation of Part IV of the EP Act provides a sufficient regulatory framework. Similarly, there could be questions whether new laws for mine closure planning, rehabilitation and relinquishment should apply equally to State Agreements as to other forms of mining tenure.

## 10.5 Chapter 5

Chapter 5 considers how each jurisdiction promotes and regulates mine closure planning and rehabilitation through the minerals resource tenement application process and any other approvals processes that are required before minerals production (mining) can commence. It does this in three stages:

- Mine closure planning – process and criteria for presenting and endorsing a mine closure plan,
- Financial security for fulfillment of a rehabilitation and closure plan, and
- Community engagement rights during mine closure planning.

There are comparative summaries at each stage of the chapter and future research questions formulated across this detailed consideration of the issues. In overview summary, we found the following.

All three States require a rehabilitation and closure plan to be presented and approved before mining operations can begin, but there are significant differences in the law and policy means for regulating those requirements. Queensland spells out the procedures and community consultation rights in detailed legislation (statute and regulations, as well as guidelines) that require approval of the Progressive Rehabilitation and Closure Plan and Schedule as part of the EA administered by the DES under the EP Act before the resource tenure may be issued. Western Australia and Victoria require the rehabilitation and closure plan to be approved, often with environmental impact assessment, after the resource tenure is issued and before work begins, but differ greatly in the level of legislative definition in the requisite procedures and the ultimate legal effect given to the resultant rehabilitation and closure plan. The Western Australian regime, being defined by ‘statutory guidelines’, lacks enforceability and, perhaps, legal credibility. There is, arguably, an additional source of legal credibility in the Queensland system in that the rehabilitation and closure plan is incorporated into the EA administered by the DES.

The three States also differ on the financial security provisioning. While all three have a history of the inadequate use of bonds to cover the costs of rehabilitation if the resource tenure holder fails to fulfil its commitments, Western Australia and Queensland have developed systems of pooled rehabilitation funds composed of annual contributions based on estimated rehabilitation liabilities. Both retain bonds or financial assurances for high-risk mines, with the Queensland system again being the more sophisticated. Victoria retains only a reformed bonds system, with the exception that the Latrobe Valley coal mines are subject to additional levies for mine stability and the contribution to the Declared Mine Fund recently created to meet the additional costs of the enhanced regional rehabilitation strategy. Queensland has also recently created a ‘residual risks fund’ to pay for estimated additional public costs that may arise after relinquishment, which is discussed further in chapter 6.

All three States define rights and procedures for community consultation on rehabilitation and mine closure planning, and much less so on financial security. Again, the detailed legislative provisions of Queensland’s EP Act integrate with the procedures of the MR Act to secure robust opportunities for community engagement. Neither the resource tenure nor the EA (incorporating the progressive rehabilitation and closure plan) may be granted until there has been a full community consultation process that involves effective notice, opportunities to make submissions, rights to object to draft decisions and have the objections to both instruments determined simultaneously and independently in Land Court proceedings that lead to public reasoned recommendations to the respective decision-makers, who must consider them. Victoria and Western Australia provide less secure rights of community engagement that are administered primarily through the mining legislation (unless environmental impact assessment is required), with the Western Australian regime being considerably weaker because almost the entire process is defined by statutory guidelines of dubious legal effect that relegate community engagement to lease holder responsibility with merely bureaucratic oversight.

A further factor in the transparency of the rehabilitation and closure plan process is what happens to the approved plan. In Western Australia, an MCP is published in the DMIRS Minedex website that is generally accessible to the public, with exemptions from publication for commercially confidential material. In Queensland, EAs and the progressive rehabilitation and closure plans are publicly available on a public register established under the EP Act. Victoria similarly maintains a mining register on which are recorded the basic details of licences, approved work plans and rehabilitation bonds, but not rehabilitation plans. Full copies of plans cannot be viewed or downloaded. Victoria’s publication of EES and mining licence documents currently do not allow for especially easy access as there is no centralised database.

Finally, there is a gap in the explicit legislative framework for repurposing of mining assets in the transition to closure and tenure relinquishment. For example, the Victorian provisions use only the language of land rehabilitation whereas the Queensland provisions contemplate outcomes that are consistent with land use planning schemes, which arguably provide more legal room for repurposing solutions. However, the

legislation and guidelines are generally quiet on the terms for repurposing, perhaps because those ideas have emerged more lately in the mine closure conversation and are acted on more in the latter stages of operations, closure and rehabilitation.

Across the chapter, we formulated the following future research questions.

#### 5.2.1 Future Research Point

A future research question could be to review the content and effect of the Mining Amendment Bill 2021 (WA), especially what the reforms say about the making and legal effect of a “mine development and closure proposal”.

#### 5.2.2 Future Research Point

A future research question could be to review what the Land Court decisions have said about factors that the Land Court is required to consider in relation to mine closure and post-mine land use.

#### 5.2.3 Future Research Point

A future research question is whether the *Mineral Resources (Sustainable Development) Act 1990* (Vic) and Regulations provides for ‘repurposing’ of legacy mine infrastructure assets as an acceptable component of rehabilitation and how the residual risks of such repurposing may be address.

#### 5.2.3.2 Future Research Point

A future research question could investigate how the effectively Victoria’s Environment Effects Statement (EES) process works in practice if it can be conducted prior to the actual legal procedures with which it is designed to be integrated and result in a recommendation from the Planning Minister before a proponent has formally submitted a mining licence application, let alone a works plan application. Could such a practice deprive participants in the EES process of the effective opportunity to review and comment on the formal works plan and rehabilitation plan proposal?

#### 5.2.4 Future Research Point

The contrasting regimes of mine closure and rehabilitation planning in the three jurisdictions raise some important questions about the institutional design features and the legislative definition of the relevant powers, procedures and instruments for that planning. What are the advantages and disadvantages of conducting procedures for mine closure planning at the same time as the grant of the resource tenure or after the grant of resource tenure, and by the same or separate government agencies? Similarly, what is the role of environmental impact assessment of mining proposals and mine closure and rehabilitation planning – how should be it conducted, by whom and with what ultimate legal effect? In evaluating these institutional questions, what difference does it make to provide the essential elements of those procedures and their outcomes in legislation (statute and regulations) as opposed to merely soft law instruments?

### 5.3 Future Research Point

It is currently unclear whether there is any beneficial difference to each State's method of rehabilitation liability calculation and financial assurance. There is more recent (2020) data on the efficacy of Victoria's financial assurance regime than those of Western Australia and Queensland, and it shows that the bond amounts were very inadequate and administration of the bond requirements frequently non-compliant with the law. There is a significant legislative gap in the Western Australian financial securities in relation to State Agreement mines. Collecting up-to-date data on the current administration of the financial assurance schemes would be a challenging research task without considerable co-operation from industry and government. The CRC could consider undertaking this task in a later round of research planning and align it with questions of landholder or community consultation on determination of financial security.

### 5.4.2 Future Research Point

The rights to comment and negotiate for native title holders are well recognized in law. A detailed analysis of the outcomes from the exercise of these rights in relation to mine closure planning was beyond the scope of this research project. Future research could consider how Traditional Owners may exercise their native title rights to negotiate about the effects of mine closure on their lands and how the exercise of those rights may interact with or be supplemented by the participation of Traditional Owners in the procedures for community engagement under resource tenure and environmental authorisation legislation.

### 5.4.4 Future Research Points

Section 5.4 has reviewed community engagement rights at the pre-mine operation stage of decision-making in three respects; rights to information and comment, rights to comment and negotiate (particularly for Traditional Owners), and acceptance of residual risk. A separate research question is posed at 5.4.2 in respect of the Traditional Owners' rights to comment and negotiate.

While each jurisdiction acknowledges the importance of community consultation and the recognition of residual risks, the legal rights and institutional structures for addressing these central issues in mine closure planning and rehabilitation vary significantly between the three jurisdictions. A comparison of the different approaches raises the following research issues.

- Should community consultation on mine closure planning occur at the same time as consideration of the grant of resource tenure or at a separate post-grant process considering a detailed mining proposal / work plan and mine closure plan? What is the appropriate form of community consultation on the level and form of financial assurance of rehabilitation obligations?
- What should be the legal rights for community and stakeholder participation in that process; is it enough to rely on a tenure holder's duty of community consultation and the regulatory agency's review or should there be an independent expert institution (e.g. Warden's Court / Land Court / ad hoc inquiry panel) to hear and determine objections to the mining proposal and closure / rehabilitation plan?
- Is it appropriate and feasible at this pre-mine operation stage to address the questions of post-mine rehabilitation residual risks and to ascertain or determine some level of community acceptance of post-mine land uses and residual risks?

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#### 5.4.4 Future Research Points

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- What is the appropriate form of legal instrument to record legally binding obligations of the mining proposal and closure plan and of community acceptance of residual risk; is it sufficient simply to have compensation agreements with private landholders directly affected, or is desirable and feasible to have a community agreement on the residual risks, perhaps recorded between the proponent, state authorities and local government?
- What is the appropriate role of environmental impact assessment in facilitating community consultation on mine closure planning and rehabilitation, especially where there are broad questions of public interest?

#### 5.5 Future Research Point

As explained in 1.2.5 above, the core meaning given to the term 'repurposing' is the adaptation of the concept of closure to include repurposing of mining assets to future non-mining uses instead of their removal and the rehabilitation of the mined area. However, the repurposing of mine assets or mined land forms may be presented as a part of rehabilitation.

There is a gap in the explicit legislative framework for repurposing of mining assets in the transition to closure and tenure relinquishment. For example, the Victorian provisions use only the language of land rehabilitation whereas the Queensland provisions contemplate outcomes that are consistent with land use planning schemes, which arguably provide more legal room for repurposing solutions. However, the legislation and guidelines are generally quiet on the terms for repurposing, perhaps because those ideas have emerged more lately in the mine closure conversation and are acted on more in the latter stages of operations, closure and rehabilitation. Various specific questions arise.

- What would repurposing provisions look like?
- What would they require to be included in the rehabilitation plan?
- How would the residual risks of repurposed assets be address?
- What would they require in terms of community engagement to identify the appropriate repurposing / future land use options?
- How would the repurposing process interact with land use planning laws? For example, would there be an expectation that the mining operator should ensure appropriate land use zoning for the location of the repurposed asset while the new asset owner would be responsible for obtaining any authorisations to adapt and use the asset?

## 10.6 Chapter 6

Chapter 6 considers ongoing obligations, rights and duties of government, mine operators and the community, relevant to mine closure, while the mine is in operation. It considers:

- Continual transparency requirements relevant to updated closure planning and implementation progress;
- Continual community engagement and community rights including local government;

- Clear process and criteria for determining relinquishment and any steps being taken towards evolving and clarifying that process.

We found that all three jurisdictions provide for these functions in some fashion but, as with the pre-mine operation stage, there are significant differences in the law and policy means for regulating these functions.

It bears briefly re-iterating that the *Mining Act* (WA) applies a very flexible light regulatory touch by means of mine closure planning guided by statutory and non-statutory guidelines to approve regular three-yearly updates of the MCPs that gain legal effect by the suggested endorsement of a mining lease condition that mine rehabilitation must be implemented in accordance with the approved MCP. The sanction for not fulfilling the lease condition is the potential for mining lease forfeiture or a modest pecuniary penalty. The monitoring and reporting procedures are limited to the traditional annual reporting (especially on mining expenditure) and the also limited functions of annual reporting on existing mine land rehabilitation liabilities for the calculation of the annual levy paid to the MRF. There is no transparent means of reporting on the fulfilment of the commitments of an MCP and the community rights to information and comment on amendments to or fulfilment of MCPs are limited to the strategy for stakeholder consultation devised by the lease holder for approval in the three yearly updates of the MCPs. There are undoubted benefits here for lease holder flexibility but more troublesome questions about predictability, accountability and acceptance of residual risk for communities. Equally, the fluid relinquishment process with overarching requirements may seem adapted to a diverse mining industry but it could also demand a lot of negotiation at the time of closure to create measurable, attainable milestones. State Agreements are even less predictable again, being tailored to individual circumstances. The flexibility can create uncertainty of outcomes for community and industry alike, and leaves government potentially hesitant in how to exercise its authority. The issue of balancing certainty with flexibility is a constant regulatory difficulty.

Queensland's regulation of these functions is clearly the most legislatively detailed, independently administered, and legally forceful and transparent, in both the processes for providing information and in the legally expressed duties to fulfil the commitments and conditions of a PRC plan and schedule re-enforced by the sanctions for non-compliance, which may be identified by the administering authority requiring a statement of compliance. No doubt the industry can point to the potential transaction costs of such a specifically regulated system, but there could be interesting research questions around the industry's perceptions across the other comparative themes of accountability, predictability and liabilities, including for residual risk.

In many ways the Victorian legislation provides the more readable legislative provisions, with a convenient identification of core decision-making powers in the MRSD Act and sufficient detail in the regulations for the various instruments to be prepared in fulfilment of the statutory duties. Victoria also provides a more flexible regime of enforcement by declaring broad statutory duties to be fulfilled but leaving the enforcement regime to the supplementary exercise of administrative discretion in the making of enforceable undertakings and compliance orders. The Victorian legislation, as outlined in chapter 5, relies on the statutory duty community consultation imposed on the mining licensee and guided by a consultation plan to be prepared in accordance with the regulations. The licensee's statutory duties to consult the landowner and local municipal authority are simply and directly stated but the content of rehabilitation plans are private, not being required to be lodged on the public register of mining instruments.

Again, all three jurisdictions have specified quite clear procedures for determining relinquishment but Western Australia's requirements are spelled out in statutory and non-statutory guidelines of dubious legal effect that leave a high degree of uncertainty for industry and community alike and uncertain authority for government.

Ultimately, it is possible that a large amount of the mine closure planning undertaken pre-operation is adapted during operations. Whilst progressive rehabilitation is an optimal aspiration for government,

industry and community stakeholders, it is possible that the bulk of mine closure conditions are negotiated in detail once operations cease and decommissioning begins.

We proposed the following research questions from sections 6.2, 6.4 and 6.5.

### 6.2 Future Research Point

The interaction between the rehabilitation of mine site voids to pit lakes and water law is a key part of creating viable closure plans across Australia. This includes the intersection with Native Title law and the impact of rehabilitating voids on traditional owners, as well as the intersection with pastoral regulation. How can these spheres of law be developed in a complementary way that allows for sustainable rehabilitation and accommodates an understanding of the realistic expectations of all parties over time interacting with the dynamic nature of the mining industry operating in an international market?

### 6.4 – 6.5 Future Research Point

Relinquishment and mine closure are processes that often occur progressively over decades. It is therefore necessary for the regulatory framework to balance more adaptable soft law with legislated requirements. The long-life cycle of many mines and the inherent lack of agility of a mine void demands realistic research on how flexible the industry can realistically be and what regulatory elements ought to be prioritized to achieve certainty and accountability. Where exactly does this balance lie when regulating for efficient relinquishment but safe, stable and sustainable landforms? Future research to help define that balance could consider the following.

- What are the key elements that would be needed to give both operators and regulators certainty that closure/rehabilitation/repurposing has occurred and relinquishment can take place?
- What would a model relinquishment process and criteria look like to balance industry and government perceptions of transaction costs v's other comparative themes of accountability, predictability and potential liabilities, including financial assurances for residual risk?
- What is the role of community consultation in determining relinquishment, including consultation with local government? Is it more than consultation?
- When would residual risks be transferred to the State?
- This research could review nationally and internationally relevant laws and relinquishment case studies in order to draft up model regulations/legislation for relinquishment. The International Energy Agency [work on carbon capture and storage](#) may be a good model to look at.

## 10.7 Chapter 7

Chapter 7 addresses what happens after the initial closure process has been completed, in that production has ceased and the mine has been decommissioned, and post-mining monitoring is assessing whether the rehabilitation has been successful enough to sustain an application for relinquishment. Both regulatory authorities and industry consider a key goal of mine closure and tenure relinquishment to be the absolving of liability for residual risks. Certainty surrounding residual risk liability can have positive impacts on the assessment of insurance costs and generate confidence for future environmental, social and economic management. In reality, some exposure to residual risks may persist past certification of relinquishment. Once relinquishment of the mining lease or mining licence has been achieved, both stakeholder rights and miner liabilities under the mining tenure cease, although common law rights and some other forms of

statutory liability, discussed below, perpetuate. This is one of the greatest hurdles for the Australian regulatory framework and the future of the mining industry: how to reconcile the fact that stakeholders may continue to have their interests affected decades after any legislated rights have ceased effect.

To consider these issues, this section will use the following headings:

- Options for post closure management;
- Statutory mechanisms for addressing foreseen residual risks, including for re-purposed assets; and
- Common law mechanisms for addressing foreseen and, potentially, unforeseen residual risks.

This chapter has considered what options there are for post-operation management, especially to address potential shortcomings in rehabilitation through the corporate social licence to operate and government step-in powers. Before relinquishment, government may exercise its step-in powers to rehabilitate a site and cover the expense by a bond or other legal means of recovering the costs from the resource tenure holder. If there is land and water contamination, the contaminated sites legislation establishes a clear set of principles and procedures for identifying the contamination and allocating liability for remediation or, if no responsible party can be found, for transitioning that responsibility to government. There are also laws providing for the rehabilitation of legacy and abandoned sites, though little experience with using them.

We propose the following future research points.

#### **7.2.4 Future Research Point**

Notwithstanding that there are a framework of laws that may be applied to address foreseen or foreseeable residual risks, there are still gaps in understanding how the post-closure management process can work. Each of the three jurisdictions has some form of government step-in powers and government access to financial assurance funds to remediating abandoned sites. Future research may seek to draft model provisions for legislation for post closure management; for example, by drawing ideas from International Energy Agency Carbon Capture and Storage: Model regulatory framework. Such provisions will need to devise procedures and principles for identifying and allocating liability for residual risks. In identifying those residual risks, it may be opportune to evaluate how the mining laws compensation regimes operate to address the on-site and off-site harm caused over the life of the mine and beyond rehabilitation.

#### **7.3 Future Research Point**

How can land use planning regimes and mine relinquishment processes be better integrated to ensure that future repurposing of rehabilitated mine land can be achieved? How could third party/community rights of engagement/consultation be integrated across the rehabilitation plan/relinquishment process under the mining regime and the planning scheme amendment process? How are local councils best involved in this process and what guidance should come from the State level?

Also, a distinct regulatory gap exists for the regulation of repurposing of mine sites. It is generally conducted on a site-by-site basis and, whilst this allows for flexibility and individual circumstance, it neglects to provide clear outcomes for post-mining transition processes. What regulatory mechanisms could be employed to incentivise progressive transitions towards repurposed mine sites post-closure?

**7.3.5 Future Research Point**

Notwithstanding that there are a framework of laws that may be applied to address foreseen or foreseeable residual risks, there are still gaps in understanding how the relinquishment process can work. Future research may seek to draft model provisions for legislation on relinquishment and post closure management; for example, by drawing ideas from the International Energy Agency Carbon Capture and Storage: Model regulatory framework. Such provisions will need to devise procedures and principles for identifying and allocating liability for residual risks. In identifying those residual risks, it may be opportune to evaluate how the mining laws compensation regimes operate to address the on-site and off-site harm caused over the life of the mine and beyond rehabilitation.

**7.5(1) Future Research Point**

The common law causes of action are burdensome to pursue but can provide an important last resort for aggrieved communities suffering from unfulfilled rehabilitation commitments because the remedies can provide damages for loss and orders to do or refrain from taking certain actions. Future research could explore the expression of the mine operators' ultimate duty to rehabilitate as a statutory duty owed to the communities that surround or succeed the mine closure. This could open the way for the community to bring judicial proceedings for civil liabilities for a breach of statutory duty if the duties are not fulfilled and that leaves a legacy of harm.

**7.5(2) Future Research Point**

An area that is notoriously hard to regulate, and so often isn't, is the social transition that comes with closing and rehabilitating a mine site. Particularly in areas that have developed entire townships based on a mining community (as in Queensland's coal communities, for example) the need for collaborative closure that involves the community is critical. Research which explores how to guide this social transition through law and regulation will be valuable for these communities in decades to come. As the legislation will need to endure, an aspect of the research will be how to create heads of regulation making powers and policies (statutory and non-statutory) that can create the flexible means of updating legislation without statutory amendment by Parliament. Both forms of regulatory influence must be consistent with the terms of the statute but also facilitate the social licence to operate as a means of encouraging regulatory innovation.

**10.8 Chapter 8**

This chapter presents the Iluka Case Spotlight, an interesting example of mine closure process in Western Australia.

**10.9 Chapter 9**

This chapter presents the Stage 3 empirical study of the Regulatory Experience.

Both of these chapters can inform future research thinking but we have not formulated future research points from them.