

Planning for mine closure: comparative mapping of the regulatory frameworks for mine closure planning in Western Australia, Queensland, and Victoria

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Abstract

Mapping the regulatory frameworks for mine closure planning around Australia requires the consideration of several overlapping and enmeshed legal concepts, institutions, powers and processes. It can encompass environmental, economic, social, cultural and climate transitions for the mine site and the surrounding region. Mining can create complex and, in some cases, irreversible impacts, which must be considered pre-emptively to optimise mitigation of any potential damage. Legal and regulatory systems are required to play catch-up with science and culture at the best of times. Mine closure planning is further complicated when anticipating decades worth of mining impacts and conducting mine closure planning with interactions between industry, government and community within an evolving regulatory framework.

Improving efficiency of regulatory evolution requires us to take a comparative approach to the evaluation of existing regulatory mechanisms. Western Australia, Queensland, and Victoria all have prominent mining industries, which have been adapting in recent years to the reformed requirements of mine closure planning. Whilst mines in active closure might present more immediate political challenges, they also serve as a reminder of the importance of continuously improving the mine closure planning process.

This article undertakes a comparative analysis of those three states' mine closure planning processes to achieve an approved mine closure plan prior to the commencement of mining operations. We take a close look at laws and guidelines regulating minerals resources tenure, and environmental and water access approvals. The article also considers the extent to which each state provides an opportunity for community engagement and comment prior to the grant of mining and environmental approvals. We draw attention to key distinctions between the regulatory approaches taken and suggest pertinent areas for future research and regulatory reform.

Keywords: *mine closure, rehabilitation, repurposing, mining, mine planning*

1 Introduction

Ineffective mine closure brings with it innumerable risks for industry, government, local communities, traditional owners and the environment. Australian society has begun to realise some of the risks associated with its thousands of abandoned and improperly closed mine sites; these risks emphasise the importance of learning the lessons of the past and prioritising effective mine closure planning for all new minerals mining operations. Mine closure plans are living documents which almost always require adaptation throughout the mine life cycle, though they generally aim to be preventative and harm-minimising rather than reactive. Whilst acknowledging that mine closure planning is a continuously developing process, this paper will focus on planning prior to and during the mine approval procedure, as this is the crucial point at which regulation can take a preventative approach to negative mine closure outcomes. This approach taken to mine closure planning at the start of the mine life can set a precedent and establish stakeholder relationships for ongoing evolution of mine closure plans. This paper will consider existing mine closure planning regimes in Western Australia, Queensland and Victoria. It will draw out key points of comparison, with an emphasis on

community consultation requirements. Based on this analysis we suggest future research and development directions for the regulation of mine closure planning.

2 Methodology

This paper draws together some of the key themes considered in the Cooperative Research Centre for the Transformation of Mine Economy's project on Mapping the Regulation of Mine Closure (Project 1.3). The first step in a comparative analysis of mine closure planning across three Australian states with significantly different mining industries is to establish the parameters of the scope of that analysis – the regulation of mining intersects with the regulation of the environment, water, Traditional Owner land rights, occupational health and safety, and taxation and investment, to name a few. In this paper, we have strictly limited our discussion to the mine closure planning requirements during the mine approval process, due to this being when mine closure planning is most heavily regulated. None of the three states being considered have legislated for prescriptive mine closure milestones or metrics; rather, mine operators are held to the standards set out in their mine closure plans. Therefore, the mine closure planning process is crucial for setting up mine closures for future success.

The next step was to research the relevant laws and policies. We ascertained and reviewed the governing legislation, regulations and guidelines for each state. We have also considered recent academic discourse, government reports, industry reports and other articles on both mine closure planning and mine closure more generally. We primarily used Australian sources but considered international materials where relevant or beneficial to the context of the paper. Where possible, we also considered existing mine closure plans and proposed plans, though many mine closure plans are not publicly accessible.

Secondly, we undertook some primary research, largely for the benefit of context and informing the approach we took to the paper. This paper was never intended to present any empirical research, although some of the conclusions have drawn on interviews and primary research conducted by Dr Yvonne Haigh (Hamblin et al. 2022). We informed how we interpreted the secondary research by speaking to government, industry and community bodies about their experiences with and hopes for the mine closure planning process. What we gleaned was that, as with any broad and rapidly evolving area of regulation, there are a myriad of distinct and sometimes conflicting experiences and opinions surrounding mine closure planning. No doubt facilitated by the quagmire of regulation in some states; the process is rarely consistent.

This paper is intended to canvas the process of mine closure planning in Western Australia, Queensland and Victoria but also to draw out key comparisons between them and from that comparative analysis note where there are questions about future research to address gaps in or reform needed to the current laws and policies. We have taken a particular interest in the extent to which each state facilitates community engagement with mine closure planning, as this is a critical aspect of successful mine closure but is often neglected at the planning stage.

3 Findings

We have collated our key findings for each state.

3.1 Western Australia

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

- The *Mining Act 1978* (Government of Western Australia 1978) (Mining Act).
- The *Environmental Protection Act 1986* (Government of Western Australia 1978) (EP Act (WA)).

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

The first pathway (the traditional pathway) involves the application for a mining lease with a mining proposal under section 74(1)(ca)(i) of the Mining Act, 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 (WA) 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.

The second pathway (the deferred proposal pathway introduced in 2004) 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 (section 74(1)(ca)(ii) and (iii) of the Mining Act). Only the proponent may refer such an application for environmental impact assessment (section 6(1a) of the Mining Act). 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 (section 82A(a) of the Mining Act and regulation 32A(3) of the *Mining Regulations* (WA)). Almost all mining lease applications are made by the deferred proposal pathway.

The Mining Act (sections 70O and 70P) requires that a ‘mining proposal’ under the traditional pathway or the deferred proposal pathway includes, by definition, a ‘mine closure plan’ (MCP), which 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. Thus, the Mining Act establishes a statutory requirement to submit an MCP with a mining proposal but relies heavily on the statutory guidelines to set the standards for a mining proposal and MCPs. The Mining Act does not state the legal effect of the Guidelines on the decision to approve an MCP. On the basis of the High Court decision in *Forrest & Forrest Pty Ltd v Wilson* (2017), 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. 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.

The Mining Act mining lease process interacts with the EP Act (WA) process for EIA, which has some importantly distinctive definitions. The EP Act (WA) 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 (sections 37B and 38). A ‘mining proposal’, as defined in the Mining Act, will often come within the EP Act (WA) definition of a ‘significant proposal’. A mining proposal presented under either the traditional or deferred pathway can be referred to the Environment Protection Authority (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 (section 6(1a) of the Mining Act). 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 (sections 38G and 40 of the EP Act).

A unique feature of the Western Australian regulatory landscape is the use of State Agreements (Government of Western Australia 2020a). 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 (Government of Western Australia 2020a). They are individually negotiated, and the tailored terms can allow companies exemption from several other regulatory requirements (Government of Western Australia 2020a). Their use is declining, only 16 State Agreements have been passed in the last decade, however many existing projects are still conducted under a State Agreement (Government of Western Australian 2020b). 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 (Reinmuth et al. 2020). However, it has also been highlighted in modern political discourse that allowing for individual agreements can be anti-competitive (Reinmuth et al. 2020). 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 (WA) requirements of EIA are still applicable (EP Act section 5).

The *Mining Amendment Bill 2021* (Government of Western Australia 2021) (the Bill) was tabled in the Legislative Assembly on 20 October 2021 and is expected to pass parliament 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 program of work or mining proposal for low-impact activities or low-impact changes to existing mining proposals under part 4A. 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” (section 103AN).

3.1.1 Community engagement

The Mining Act provides that ‘any person’ may object to the grant of a mining lease (section 75(1)). 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 (section 75(4)). 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 to an application for a mining lease using a deferred proposal pathway based on a mineralisation report (Mining Act section 75(1a)). An objection can be based on public interest grounds, including on environmental or groundwater grounds (FMG Pilbara P/L v Yindjibarndi Aboriginal Corporation 2011 [34]). Objections are lodged either at any mining registrar’s office or online using the Mineral Titles Online forum. 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. Following grant of the lease, the leaseholder is directed by non-binding statutory guidelines to report on the community consultation it conducts in preparing its mining proposal and closure plan.

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 (WA); 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. The EPA does this through its online consultation hub (consultation.epa.wa.gov.au). There is also the right of any person to appeal to the Minister for Environment against an EPA report assessing the mining proposal (EP Act (WA) Part VII).

3.2 Queensland

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

- The Mineral Resources Act 1989 (Government of Queensland 1989) (MR Act).
- The Environmental Protection Act 1994 (Government of Queensland 1989) (EP Act (Qld)).

The MR Act, chapter 6, establishes most of the procedural aspects of acquiring mining tenure, including the process of applying for a mining lease and the relevant considerations when determining whether or not to grant the application. 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 (MR Act section 232).

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) (MR Act section 245(1)(n)). 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 (Qld). 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 (MR Act section 265). 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, as well as environmental and public interest factors.

The MR Act also sets out relinquishment requirements, which need to be considered when undertaking mine closure planning. It suffices to explain here that part of the MR Act closure requirements (sections 313 and 314) 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.

The EP Act (Qld) sets the environmental standards for any ‘environmentally relevant activity’ (section 18) undertaken in Queensland, defined as including any activity that involves a ‘mining activity’ (sections 107 and 110). It is an offence to carry out an environmentally relevant activity without holding or acting under an ‘environmental authority’ (EA) (EP Act (Qld) section 426). Note that this does not apply to any ‘small scale mining activity’ (EP Act (Qld) section 426). 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 (EP Act (Qld) section 117). The applicant for a site-specific environmental authority for a mining activity on a mining lease is 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 (EP Act (Qld) sections 125(1)(n) and 126B). The Queensland Department of Environment and Science (2021) has produced a very useful *Guideline: Progressive Rehabilitation and Closure Plans*. The EA application for a mining lease activity is ‘site-specific’ because there are no applicable standard criteria: see EP Act (Qld) section 112 definition of ‘ineligible environmentally relevant activity (ERA)’ and section 124 definition of ‘site-specific application’. 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 (Qld) by the Mineral and Energy Resources (Financial Provisioning) Act 2018 (MERFP Act; Government of Queensland 2018). The key point here is that mine closure planning has been integrated into the EA under the EP Act (Qld) Chapter 5 administered by the Department of Environment and Science (DES). The EA and PRC plan process is separate from, though integrated with, the administration of the resource tenure.

The EP Act (Qld) prescribes in detail the form and content of the PRC plan at sections 126C and 126D; including:

1. The nature and likely duration of the relevant mining activities, plus the methods and milestones for rehabilitation.
2. 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.
3. 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 (EP Act (Qld) section 126D(2)). 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 (EP Act (Qld) section 126D(3)). 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 (EP Act (Qld) sections 136A, 316PA and 316PB). It is important to note that PRC plans do not expressly deal with or account for residual risk.

The criteria to be considered by the DES when deciding to approve a PRC plan are provided in 2019 amendments to the Environmental Protection Regulations (EP Regulations; Government of Queensland 2019), which came into operation at the same time as the MERFP Act amendments of the EP Act (Qld) came into operation (regulations 41A to 41C, 184, 187A, 187B and 213). 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.

There is a further requirement under the Strong and Sustainable Resource Communities Act 2017 (Government of Queensland 2017) (SSRC Act) section 9, for any resource project which requires an environmental impact assessment to also conduct, and make publicly available, a social impact assessment. 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 (Government of Queensland 1971). The Coordinator General operates independently of, but alongside, the DES and the DoR to conduct a preliminary assessment of significant projects (Government of Queensland 2020). 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 (Government of Queensland 2020). Any project that requires an environmental or social impact assessment must be approved by the Coordinator General (Government of Queensland 2020).

3.2.2 Community engagement

There are extensive notification requirements during both the EA and environmental impact statement (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 (SSRC Act section 54). 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 (SSRC Act section 160). 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 (SSRC Act section 150(d)).

Under the EP Act (Qld) section 182, 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. 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 (EP Act (Qld) section 182). The Land Court then has the discretion to make the orders it deems appropriate to address the objection (EP Act (Qld) section 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). 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 (Government of Queensland 2019b), see *Waratah Coal Pty Ltd v Youth Verdict Ltd & Others* (2020).

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, such as *Consolidated Tin Mines Ltd v Dunn* (2017). *Hancock Coal Pty Ltd v Kelly & Ors* (2013) 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". 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; rather each party bears its own costs, see *Adani Mining Pty Ltd v Land Services of Coast and*

Country Inc (2016). See also a contrary ruling in *Deimel v Phelps* (2020), 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. Any concern about a waste of court resources 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* (2021) affirm the value of strong community engagement procedures that include objections before the Land Court.

3.3 Victoria

The Mineral Resources (Sustainable Development) Act 1990 (MRSD Act; Government of Victoria 1990) is the main Act regulating mining in Victoria. 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 (MRSD Act Part 2). The licence application must describe the mineral resource and contain all the details required by the regulations (MRSD Act sections 15(1BB) and (6B)), 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 (MRSD Act section 26(2)(a)). However, 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.

The MRSD Act together with the Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019 (Regulations; Government of Victoria 2019) establish, at regulation 15, the process for a mining licence application. 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', has been approved (MRSD Act section 40(3)(e)). A mining licence holder must not do any work except in compliance with the licence and approved work plan (MRSD Act section 40(3)(e)). 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 (MRSD Act section 41AD).

Victoria relies heavily on the work plan to regulate mining activity and rehabilitation. It includes detail of all work to be undertaken, risk management measures, the rehabilitation plan and other matters such as the community engagement plan, 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 (MRSD Act sections 40(2) and 40(3)). 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 (MRSD Act section 39).

A work plan must "be appropriate in relation to the nature and scale of the work proposed to be carried out" (MRSD Act section 40(3)). If the work plan relates to any Crown land, the Crown Land Minister must be consulted (MRSD Act section 40A). The work plan must also include, among other things:

- 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).
- 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.

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 [its pre-mining licence] state" (MRSD Act section

79). The mining licensee must rehabilitate the land in accordance with the approved rehabilitation plan and the owner of the underlying land may request the licensee to make a written agreement as to the rehabilitation plan (MRSD Act sections 78(1) and 78(4)). 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 (MRSD regulation 43).

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. This was done through the Mineral Resources (Sustainable Development) Amendment Act 2019 (Government of Victoria 2019), 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 part 7A ‘Mine Land Rehabilitation Authority’ and part 7B ‘Regional Rehabilitation Strategy’, and 7C ‘Declared Mine Land Rehabilitation’. The MLRA replaced the LaTrobe Valley Rehabilitation Commissioner. These amendments were targeted specifically to addressing the large coal mines of the Latrobe Valley, which are expected to close within the next 15–25 years.

The Environmental Protection Act 2017 (EP Act (Vic); Government of Victoria 2017a) sets out the legislative framework for the protection of human health and the environment from pollution and waste and is administered by an independent 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. A search of the Mineral Resources (Sustainable Development) Act 1990 (Government of Victoria 1990) and Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019 (Government of Victoria 2019) and the Environmental Protection Act 2017 (Government of Victoria 2017a) and Environment Protection Regulations 2021 (Government of Victoria 2021) 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, pages 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.

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 (Vic) provided those activities are undertaken in accordance with the MRSD Act (EP Regulations Schedule 1, item 37, C01). This means that, generally, onsite impacts are regulated under the MRSD Act and offsite discharges are regulated under the EP Act (Vic).

Most major mining proposals are likely to require an integrated environmental impact assessment under the Environmental Effects Act 1978 (Government of Victoria 1978) (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.

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 (EE Act section 8(3)).
- The decision-maker required by the MRSD Act (or other Victorian Act such as the EPA under the EP Act (Vic)) to make a decision about works may refer the matter to the Planning Minister for advice as to whether an EES is required (EE Act section 8(1)).

- The Planning Minister may also independently call for an EES or supplementary EES (EE Act sections 5 and 6).

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 (EE Act section 9). 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, and any environmental approvals and water licences.

3.3.3 *Community engagement*

The mining licence applicant must publicly advertise the application and give specific notice of it to the owner and occupier of affected land (MRSD Act section 15(5)). 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. 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. 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 (Government of Victoria 2019). The Department Head must also give specific notice of the (highest-ranked) application to persons nominated under the Aboriginal Heritage Act 2006 (Government of Victoria 2006) and the Executive Director under the Heritage Act 2017 (Government of Victoria 2019) (MRSD Act section 18).

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 (MRSD Act sections 24 and 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. Objections and comments may also be inspected by any person on request. 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 (MRSD Act section 25(2)). 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 (MRSD Act part 4A). We have not had the opportunity to research the use of such panels in preparing this paper.

The MRSD Act provides for further general and specific consultation before the mining licensee may commence work under the licence (MRSD Act section 42). Three key points should be mentioned here. First, 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.
- Giving members of the community a reasonable opportunity to express their views about those activities (MRSD Act section 39A and part 3).

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 (MRSD Regulations, regulation 46). 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 (MRSD Act section 42(1)(h)). Thirdly, the Minister must consult with the municipal council (local government authority) and land-owner before determining the amount of a rehabilitation bond (MRSD Act section 80(2)). 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.

4 Results

There are three key points of comparison that can be drawn out from the above findings:

- Whilst all three states require mine closure planning to be undertaken before mining operations commence, only Queensland requires the plan to be provided for the resource tenement and environmental authority to be granted. Victoria's planning process is still stringently regulated, whereas the existence of the deferred proposal pathway in Western Australia allows mine closure planning requirements to be met without the same oversight and public consultation as other states.
- All three states regulate the content and standards of mine closure plans through a set of interrelated resource approvals, environmental approvals and non-binding guidelines. Queensland and Victoria provide codified regulatory requirements for the entire mine closure planning process, whereas Western Australia only has general guidelines without any prescriptive outcomes. Mine sites are all unique and require, to varying degrees, tailored rehabilitation processes, thereby necessitating a degree of flexibility at the point of mine closure planning as well as mechanisms through which plans can be adapted throughout the mine life cycle. The planning process must also have the capacity to account for transparently balancing (sometimes competing) community, safety, economic, environmental and cultural interests. These interests are also subject to change throughout the life of the mine.
- Only Queensland requires a specified community consultation process to be undertaken prior to the granting of a resource tenement. It also provides more detailed requirements for effective community consultation than either Western Australia or Victoria. Once again, Western Australia has the least regulation, with only non-binding guidelines directing the leaseholder to report on the community consultation it conducts. Given that most mines are now expected to undertake progressive rehabilitation, community consultation regarding this process from the outset through transparent mine closure planning is key to maintaining a social license to operate.

From these three comparisons, we have drawn out three key results for consideration in future regulatory research and development:

- Mine closure planning generally functions as an add-on to the mining tenement approvals process rather than an integral step required to obtain a mining lease or license. The further development of processes like Queensland's PRC plans would facilitate more comprehensive mine closure planning and allow mine closure considerations to be examined when determining a grant of both resource and environmental approvals. Clear codification of the mine closure planning process from the outset of the application for a mining tenement can also improve consistency and transparency of process.
- There is an inherent conflict between clear, enforceable mine closure planning requirements and adaptable regulation capable of facilitating the effective closing of the relevant mine, an undertaking which is usually decades away. In general, recent regulatory reform lends itself to greater codification of mine closure planning standards and requirements, allowing the state and affected members of the public more concrete avenues for legal redress in the future if mine closure standards set out in a relevant plan are not met.

- Community engagement is also increasingly being recognised as a critical element of effective mine closure planning, though Western Australia lags noticeably behind in this respect. Although all three states considered in this paper provide avenues for community consultation and objection during mine closure planning, the parameters set in relation to mine closure planning are centred around the process of such consultation as opposed to its efficacy. Mine closure plans can be difficult for relevant stakeholders to access and comprehend. The question of whether there is comprehensive community understanding and acceptance of mine closure risk and outcomes is seldom answered in existing regulatory frameworks but is a crucial part of ensuring accessibility for all relevant stakeholders.

5 Conclusion

The evolution of the regulation of the mine closure planning process must maintain continuous cognisance of the eventual outcomes it seeks to achieve by balancing competing values of enforceability and adaptability. All three states require an approvals process for both the grant of a resource tenement and an environmental authority; however, they differ in the order and procedural requirements for each. Western Australia is noticeably softer in its regulation, allowing mining tenements to be granted before mine closure planning has been conducted, and only requires community consultation during closure planning through a non-binding guideline. By contrast, recent reform in Queensland has codified comprehensive community consultation processes and requires mine closure planning to be undertaken before either a mining tenement or environmental approval may be granted. Amongst the complexity of the mining approvals process, the value of comprehensive mine closure planning cannot be overstated. Empowering communities and government agencies to work collaboratively in the development of regulation to facilitate safe and effective mine closure planning can be efficiently achieved through comparing and adopting the most beneficial aspects of existing systems.

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