



State of Discovery

Mineral Resources Strategy
2018–2023



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Our state's minerals are a source of jobs, wealth and opportunity for all Victorians. Mining operations are the backbone of many regional towns, providing employment, opportunity and a sense of community.

Victoria owes much of its early economic development to the gold rushes of the 1850s. Today, we continue to support ongoing development of our world-class mineral resources to deliver continuing prosperity for Victoria. This strategy is a blueprint for a flourishing mineral resources sector in the uniquely Victorian context.

The Victorian minerals sector is built on more than 160 years of exploration, with a mining heritage and highly-skilled workforce which eclipses most jurisdictions.

Mining and mineral exploration expenditure is now at the highest level since 2011. Above ground, Victoria is a leading global mining hub, home to industry leaders such as BHP, OceanaGold, Newcrest Mining and Orica and industry bodies like Australasian Institute of Mining and Metallurgy (AusIMM), Australian Mineral Industries Research Association (AMIRA) and the Melbourne Mining Club. At the International Mining and Resources Conference (IMARC), Australia's premier international mining event, Melbourne is centre-stage for the global industry. This augurs well for a broader mining and Mining Equipment, Technology and Services (METS) sector, worth \$13.6 billion in 2016/17 and accounting for 121,000 jobs in Victoria.

This strategy delivers a whole-of-government approach across the mining life cycle. It sets a path for improving the administration and enforcement of our regulatory framework for managing the social, environmental and economic conditions of industry. The strategy highlights our priorities for investment in pre-competitive geoscience, the reduction of costs and red-tape for the minerals sector and leveraging Victoria's world-leading business conditions, infrastructure, corporate connectedness, educational excellence and workforce preparedness.

The Government is committed to responsibly growing the minerals sector in a way that keeps Victoria clean and safe while meeting community expectations. This strategy is targeting significant mineral discoveries through increased mineral exploration investment over the next decade under a more modern, proportionate and robust regulatory system. The strategy provides settings to underpin the long-term development of socially and environmentally responsible mineral exploration and mining in regional Victoria. Sustaining and growing local jobs and communities is our focus.

The world-class Fosterville Gold Mine near Bendigo is a prime example of the significance of mining to Victoria. It currently employs 570 people and contractors, mostly from around Bendigo, and sustains many more jobs in mining and other services in the Bendigo region and Victoria. On the back of substantial recent discoveries, the mine owner has commenced a large mineral exploration program to drive future discoveries and production. This strategy is about fostering the jobs and wealth creation of mines like Fosterville across Victoria.

I thank the Earth Resources Ministerial Advisory Council (ERMAC) and industry representatives for their advice and express my appreciation for the cross-government collaboration on this strategy.

A handwritten signature in black ink, appearing to read 'Tim Pallas'.

Tim Pallas MP
Minister for Resources

STRATEGIC OVERVIEW

Victoria has a rich mineral endowment, world-class geoscience data and low sovereign risk. It is emerging as a new prospective province for copper and other base metals. It is also a resurgent province for gold, following an increase in mineral exploration activity in Victoria and predictions for resource prospectivity. Responsible minerals exploration and development will bring jobs and economic development, particularly in regional Victoria.

Building community confidence in mineral exploration and development.

Gaining and maintaining community confidence in the social, environmental, and economic performance of mineral exploration and development is critical for the sector.

Communities want to be more informed and able to express their views on the benefits, potential risks and safeguards for potential mineral exploration and development projects in their local area, and across Victoria. Assurance is needed for the community about industry performance, and the environmental, social, and economic impacts of mineral exploration and mining.



\$40.7m

Mineral exploration expenditure in 2016–17¹



\$805m

Mining capital expenditure in Victoria in 2016–2017²



Total direct and indirect contribution of

\$13.6b

4% of economic activity, and 121,000 jobs in Victoria in 2015–16³

¹ ABS publication series 8412.0, Mineral and Petroleum Exploration, Australia, March 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8412.0>

² ABS Publication series 5625.0, Private New Capital Expenditure and Expected Expenditure, Australia, March 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/5625.0>

³ Minerals Council of Australia (2017) – Submission to the Productivity Commission’s initial report on transitioning regional economies, http://www.pc.gov.au/_data/assets/pdf_file/0008/220877/subdr080-transitioning-regions.pdf

Improving Victoria’s attractiveness for minerals investment

Mineral exploration and gold mining in Victoria have increased significantly in recent years, tripling in the past three years and increasing 79 per cent in the year to March 2018. This is nearly three times the national rate in that year.

Victoria is one of the world's major gold provinces, and has 13 goldfields that have each produced more than one million ounces of gold. Recent mineral exploration and production success in north central and western Victoria indicates that there are opportunities to discover additional gold resources in both greenfield and brownfield environments.

There are base metal prospects and deposits across Victoria that include copper, lead, zinc, antimony, molybdenum, tin, tungsten and nickel. These metals occur as different mineral deposit types in different rocks across the state.

Early stage mineral exploration for lithium is also occurring in eastern Victoria, which could supply growing markets such as batteries for electric vehicles.

Victoria has known mineral sands deposits including zircon, titanium minerals (rutile, ilmenite, leucosene), monazite, and xenotime. Mineral sands activity is focused in the Murray Basin in the state’s west, with deposits also identified in south eastern Victoria. Mineral sands deposits also have the potential to contain rare earth elements, that are inputs to low carbon technologies. Several companies are exploring for mineral sands in Victoria. The Murray, Gippsland, and Otways basins provide further exploration opportunities.

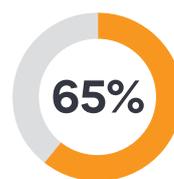
Victoria produced 28,270 cubic metres of gypsum in 2016/17, and is the main national supplier for gypsum, which is used in agriculture as a soil conditioner and to enhance agricultural productivity.

Strengthening Melbourne’s position as a global mining and mineral services centre

The minerals sector extends beyond mining to incorporate the knowledge and skills contribution of Victoria's nation-leading services sector. The services sector has made a significant contribution to the global business of mining - particularly in the professional services (including environmental and social consultancies), finance and advanced manufacturing sectors.

Melbourne is a global corporate mining centre, home to headquarters of resources companies worth two thirds of the ASX100 market capitalisation for mining stock, including BHP, MMG, and Newcrest Mining. Global mining activities bring mining industry capability and services to Victoria, and generate services exports for Victoria.

The METS sector contributes significantly to the Victorian economy. Mining expertise for global companies is located in Melbourne, including professional services such as engineering, financial services and legal expertise. Victorians develop and offer mineral processing solutions to mining companies globally, and industry-focused research and development supports plant and equipment performance across Australia and overseas.



Melbourne-based firms account for 65% of the ASX100 mining stock in 2018

\$188b

Market capitalisation⁵



Resource sector jobs in February 2018⁴

11,000

⁴ ABS Labour force Series: 6291.0.55.003. Includes all resources, not just minerals
⁵ www.asx.com.au, August 2018

This Mineral Resources Strategy

The Victorian Government has developed this *State of Discovery: Mineral Resources Strategy 2018–2023* to help grow investment and jobs in Victoria’s minerals sector.

The following table summarises the vision, goals, objectives and action areas of the strategy.

State of Discovery: Mineral Resources Strategy 2018–2023 vision, goals, objectives and actions

Vision – A growing and responsible minerals sector that is valued by the community	Outcomes – Investment, jobs, regional development, exports, value of production and acceptable environmental and social impacts
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To grow investment and jobs in Victoria’s minerals sector and the responsible exploration and development of Victoria’s minerals by...

...building community confidence in social, environmental and economic performance of mineral exploration and development	... improving Victoria’s attractiveness for minerals investment	... strengthening Victoria's position as a global mining and mining services centre
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Action Areas

<p>Confident communities and responsible explorers</p> <p>Apply a strategic, transparent approach to resource and land use planning</p> <p>Increase social responsibility standards for explorers</p> <p>Support leading practice environmental management and sustainability in the minerals sector</p> <p>Support land access negotiations</p> <p>Secure enduring community benefits for host communities</p>	<p>Advancing geoscience and encouraging mineral exploration and development</p> <p>Grow our pre-competitive data and modern geoscience concepts</p> <p>Conduct competitive tenders for strategic resources to attract high-performing explorers</p> <p>Release a Victorian resource prospectus</p> <p>Integrate resource and freight transport planning</p> <p>Support relevant skills development for mining and mining services</p>	<p>Victoria as a global mining hub</p> <p>Support expansion into global markets</p> <p>Attract headquarters of mining and METS companies to Melbourne</p> <p>Promote Australia’s mining codes and standards globally</p>
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Enabling Action Areas

<p>Improve regulatory practice and industry compliance</p> <p>Simplify processes, sharpen risk focus, provide clear and timely information</p> <p>Improve coordination between regulators</p> <p>Build regulator capability to support industry compliance</p> <p>Measure, evaluate and report on regulatory and industry performance</p>	<p>Deliver modern, fit-for-purpose laws</p> <p>Develop flexible outcomes-based tenure framework</p> <p>Increase transparency of work plans and release of industry exploration data</p> <p>Strengthen rehabilitation, post-closure and engagement obligations</p> <p>Review regulator governance arrangements</p>
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Targets and Measures

<p>Targets</p> <p>One million metres drilled by June 2023 (cumulative total over 5 years)</p> <p>Exploration investment of \$220 million by June 2023 (cumulative total over 5 years)</p> <p>One significant mineral resource discovery by 2028</p>	<p>Measures</p> <p>Metres drilled for exploration; exploration investment; significant mineral discoveries; employment; Commonwealth Scientific and Industrial Research Organisation (CSIRO) Victorian attitudes to mining; public sustainability reports; market capitalisation of Victorian-based mining companies</p>
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Mining life cycle

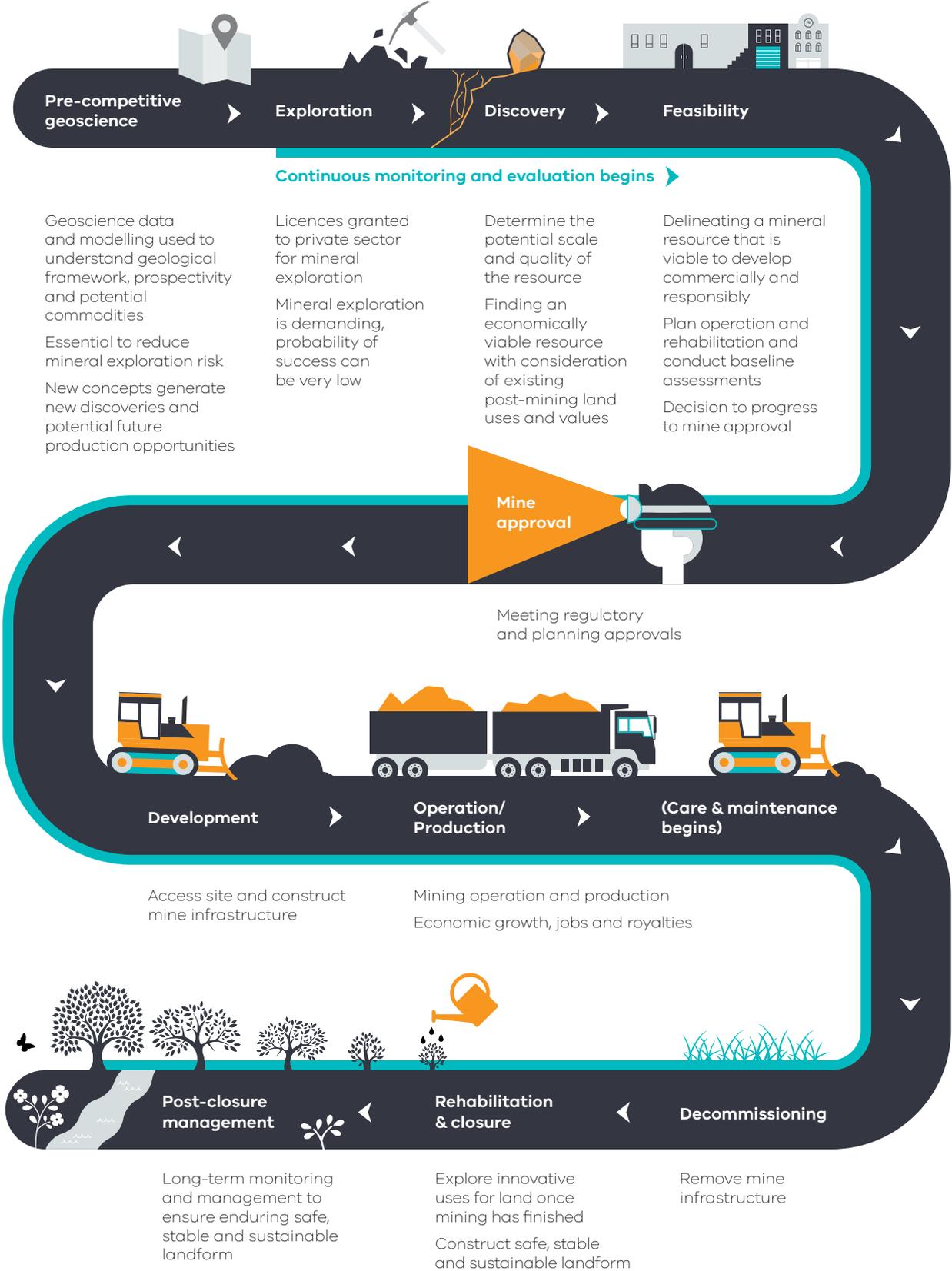
The following diagram depicts the life cycle of a mine, from pre-competitive geoscience through to the end of mining and subsequent land use.

Government

Government provides regulatory oversight to ensure industry is meeting community, environment and legislative requirements.

Industry

Industry has a responsibility to be monitoring social and environment (e.g. noise, sedimentation) considerations.



KEY CHALLENGES AND OPPORTUNITIES

Victoria is prospective for gold, base metals (such as copper), mineral sands and other minerals. There are opportunities to increase the number and quality of mineral discoveries. Interest in exploration for minerals such as lithium has grown globally with the rise of new renewable and energy-efficient technologies.

Mineral exploration is inherently risky for investors

Mineral exploration is demanding. Globally, the probability of success is low and economic mineral deposits are very rare.

Victoria's landscape presents unique challenges

Much of Victoria's landscape is intensively developed, with smaller landholdings compared with other states and territories. Increased competition for natural resources, and incompatible land uses can limit access for mineral exploration and development.



1 in 300

the conversion rate, at best, from exploration to a mining development⁶



From 1993–2017 it has taken

440,000m

of exploration drilling, on average, to make a discovery⁷



1 in 660

the likelihood that an early stage exploration project will deliver a Tier 1 or Tier 2 discovery⁷



Only 45% of deposits discovered ever get developed. Of these,

12 years

is the average time between discovery and production^{7,8}

⁶ Inquiry into Greenfields Mineral Exploration and Project Development in Victoria, May 2012, Parliament of Victoria, p. xv

⁷ R. Schodde, pers comm., August 2018

⁸ 2017–2022 National Mineral Exploration Strategy

There are growth opportunities across the mining life cycle, from new concepts that generate new mineral discoveries and future production, through to innovative uses for land following the completion of mining and rehabilitation.

Rebound in mineral exploration expenditure

While mineral exploration expenditure in Victoria was low from 2012 to 2016 (which has affected the current pipeline of mineral development opportunities), recent increases in Victorian exploration expenditure are encouraging.

Mineral exploration expenditure for year to March 2018



Mineral exploration expenditure from 2010–2017



Data Source: ABS publication series 8412.0, Mineral and Petroleum Exploration, Australia, March 2018, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8412.0>

Industry recognises that social licence is integral to their success

Collaboration with industry and all relevant stakeholders is essential for delivering the vision of this strategy. In March 2018, Rio Tinto chief executive Jean-Sebastien Jacques identified there is 'an opportunity for all of us to turn our social licence into a stronger social bond or contract. I believe this is a "make or break" for companies.'

There is further opportunity to support regional economies and industries. *The City of Greater Bendigo Rural Communities Strategy* states that 'appropriately sited and conditioned mining and extractive industries' is one of three important sectors driving the local and regional economy. Regional Victoria provides access to a skilled workforce, and benefits from ongoing government investment in key services and infrastructure.

We are paving the path to reform

Industry perceptions of Victoria's policy performance, as reported in the *Fraser Institute (Canada) Annual Survey of Mining Companies 2017*, can be improved. In July 2017, the Commissioner for Better Regulation began a Continuous Improvement Project (CIP) with Earth Resources Regulation (ERR). The goal is an improved regulatory system that ensures regulatory standards are upheld and meet community expectations, minimises regulatory burdens on industry, and delivers a modern, risk-based approach to regulation that is responsive to industry life cycles.

We have established processes for proper respect of traditional land use, and Australia's first ever treaty legislation is now law, with the Advancing the Treaty Process with Aboriginal Victorians Bill 2018 passing in the Victorian Parliament.



ACTION AREA 1:

CONFIDENT COMMUNITIES AND RESPONSIBLE EXPLORERS

What will you see?

- Improved community acceptance of the mineral resources sector
- Industry and community are clear where mining activity can and cannot occur
- Better understanding of Victorian community attitudes to mineral development
- More information about the value of mining for local communities
- Landholders feeling supported in their negotiations with industry
- A socially and environmentally responsible mining sector, that takes a cooperative approach to building social licence

Achievements to date

The mining sector in Victoria has a long and proud history. The mining sector has changed since the Victorian gold rush of the 1850s, and what communities expect of mine operators is also changing.

The government is focused on giving project proponents, the community and existing industries (such as agriculture) confidence in multiple and sequential land use in Victoria.

The presence of highly regarded operators, and operations of global significance in Victoria, such as the Fosterville Gold Mine (operated by Canadian company Kirkland Lake Gold Ltd), raises the state's profile domestically and globally.

Case study Pilot of new stakeholder and community engagement criteria and land access support – Stavelly Initiative

The Victorian Government is 'raising the bar' on social responsibility by taking a new approach in the Stavelly Ground Release Tender to attract experienced mineral explorers with credentials in community engagement. The Tender criteria has been designed to attract companies with the best minerals exploration capability, strong exploration and community engagement programs, as well as a good history of responsible exploration and landholder engagement.

Tender applications will be evaluated against stakeholder and community engagement criteria, and companies must demonstrate best practice in this regard by outlining their proposed approach and plan.

The Department of Economic Development, Jobs, Transport and Resources (DEDJTR) is also progressing improvements to land access arrangements. DEDJTR wants to support landholders in their discussions with mineral explorers on potential land access arrangements.

New support for land holders to be trialled in the Stavelly initiative area includes:

- Free workshops and information sessions for landholders in regional centres about the land access process and how to negotiate access and compensation agreements with explorers.
- A simple, voluntary land access and compensation agreement template and supporting guidance material, to help landholders discuss specific aspects of land access with explorers.
- Training for local legal practitioners within the Stavelly initiative area to equip them with the right information and boost their capabilities around land access, and help local landholders in their discussions about land access with explorers.
- New dispute resolution approach and support, which will be put in place after licences are awarded.

Priority Actions

Apply a more strategic, transparent approach to resource and land use planning

Community expectations have changed about the intersection of mineral exploration and mining activities with other land uses. Communities are looking for greater certainty about the areas designated suitable for mineral exploration and mine development, and those areas that are out-of-bounds. On an individual project scale, landowners are looking for greater support in reaching fair terms over land access arrangements.

To increase certainty for community and industry we will develop a new, more transparent approach to resource and land use planning where there are significant environmental, social or economic concerns.

The current approach is set out in the box on page 11.



Current resource land use framework

Tier 1— Land exempt under other legislation (14.2% of Victoria or 33,670 km²)

Section 6 of the *Mineral Resources (Sustainable Development) Act 1990* (MRSDA) exempts certain types of land from being available for mineral exploration and mining (and searching for stone). This is principally parks, including offshore Marine National Parks and sanctuaries, as defined in the *National Parks Act 1975*, and there is no discretion in how this is applied.

Tier 2— Land exempted under the MRSDA (7.6% of Victoria or 18,129 km²)

The Minister for Resources can exempt certain areas from resource activities under section 7 of the MRSDA:

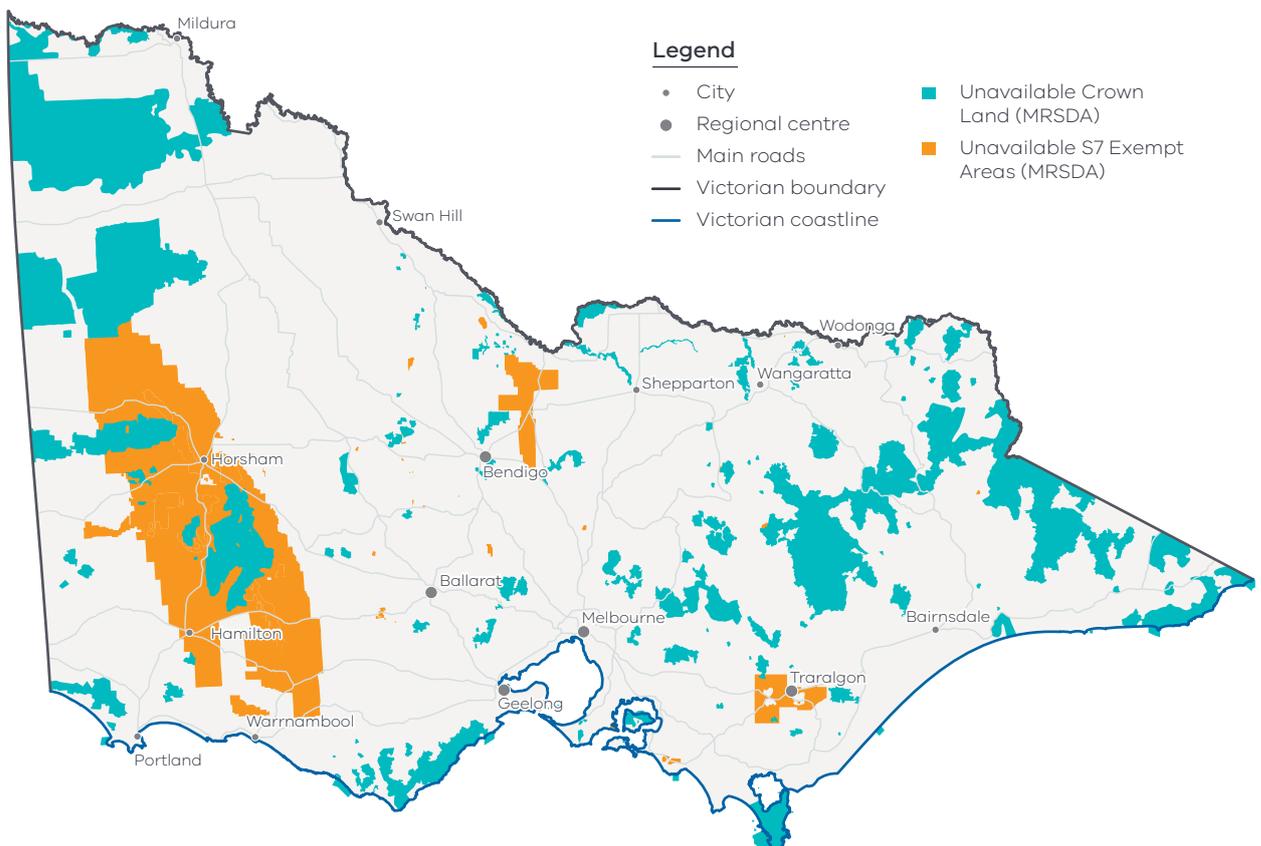
- a. to enable orderly development of the state’s resources, including aggregating areas in preparation for future ground release and while licence tenders are open over these areas; and

- b. for other reasons, including to protect land that is of significant environmental importance.

Tier 3— Available land (rest of Victoria)

Land is otherwise available for ‘over-the-counter’ licence applications to explore for and develop minerals in a designated licence area. When existing licences end, the land becomes available. If a licence application is refused, the land continues to be available. The granting of a licence provides certain rights to the holder (some of which can be restricted on certain Crown land) and also stipulates certain obligations on the holder.

Areas of Victoria exempt from licence



ACTION AREA 1: CONFIDENT COMMUNITIES AND RESPONSIBLE EXPLORERS

We will commence the application of a more strategic approach to exempt areas under section 7 of the MRSDA. These could include areas significant for their conservation, agricultural productivity, distinctive landscape, public function, or amenity value.

Where appropriate, an Advisory Panel will be appointed to administer a framework for landscape assessment of land-values to identify mining exclusion areas (down to a specified depth), while continuing to allow mineral exploration. Advisory Panels under the MRSDA can conduct hearings, must report to the Minister, and may make recommendations. We will consult with community and industry representatives on the design elements of the panel, including: terms of reference; assessment criteria; standing; transparency provisions; and guidance material.

In the first instance, exclusion areas will focus on mining development. Mineral exploration is a predominantly low impact activity that involves applied geoscience over large areas to focus in on the most prospective areas. Most areas where mineral exploration occurs will never see a mine developed, but the information gained by investigating large areas allows mineral explorers to better understand the broad geological history and build a comprehensive picture – like piecing a jigsaw together.

This new approach will provide more transparent decision-making about land use prior to decisions about land development. This approach will protect existing land uses and values where, on balance, the public interest in preserving existing uses outweighs mineral development. This will also increase certainty for industry, and provide a good basis to assist industry in building their social licence in communities where mining activities are permitted.

When mineral exploration and development activities are permitted, stringent state-wide rules protect environmental and traditional owner values, worker and public health and safety, residential amenity and public infrastructure, as well as non-use values.⁹

Increase social responsibility requirements for licence holders

To ensure a socially and environmentally responsible minerals sector that is trusted by communities we will:

- develop new guidelines to recognise and support participation in community reference groups for mining operations
- apply stringent stakeholder and community engagement criteria to future competitive ground release tenders, drawing on the Stavelly Initiative
- strengthen the minimum social responsibility requirements for licence holders through a review of the MRSDA
- commission CSIRO to undertake further work to better understand Victorian community attitudes to mineral exploration and mining
- support negotiations with traditional owner groups across Victoria through entering into Land Use Activity Agreements
- improve long-term environmental outcomes related to mining operations.

We are raising social responsibility requirements for mineral explorers in Victoria through applying more stringent tender evaluation criteria, and enhancing the role and function of community reference groups by developing clear, authoritative guidelines.

Legislative reforms proposed under Action Area 5 will further strengthen stakeholder and community engagement requirements for all Victorian mineral explorers and developers. Reforms will be informed by a better understanding of community attitudes to mineral exploration and mining.

Land Use Activity Agreements under the *Traditional Owner Settlement Act 2010* include standard terms and conditions for exploration activities. We will continue to support these agreements between traditional owner groups and mineral explorers, streamline native title requirements, and provide more avenues for resolving potential disputes.

⁹ 'Non-use' values are in existence, bequest, option and altruistic benefits we obtain from, for example, the existence of a view, or a habitat that supports threatened species that we do not 'use'.

Support leading practice environmental management and sustainability in the minerals sector

We will encourage best practice environmental management in the minerals sector.

A healthy environment is fundamental to many of the productive activities that underpin our economy. In Victoria, a number of laws, policies and initiatives exist which set ambitious targets to ensure Victoria is on the path to sustainability.

Through this strategy, the government will continue working across its departments and with industry to develop and implement innovative and meaningful approaches to environmental management and sustainability in the minerals sector, including:

- establish measures to help guide industry to continuously improve its environmental management to reflect leading practice
- improve management of waste across the minerals industry, including waste water and tailings
- reduce net greenhouse gas emissions, consistent with the Victorian Government’s target of zero net greenhouse gas emissions by 2050 for Victoria
- appropriately consider water usage with respect to public health, and water availability constraints
- facilitate collaboration with universities and research institutions to promote world’s best practice.

Support land access negotiations

To support landholders we will:

- trial reform initiatives that support the process for agreeing land access terms for mineral exploration in the Stavely Ground Release Tender area, including:
 - a template land access agreement and supplementary guidance material
 - mediation and dispute resolution services through the Small Business Commissioner and Dispute Settlement Centre of Victoria
 - provision of continuing professional development to legal practitioners in the Stavely ground release area
 - use of TARGET funding to provide free workshops and information sessions for landholders in regional centres about the land access process
- amend the MRSDA to broaden land access compensation provisions to allow for mutually-agreed in-kind arrangements
- update the Code of Practice for Mineral Exploration (2014) to include land access requirements.

These initiatives will promote long-term sustainability of the industry by addressing information asymmetry between landholders and project proponents during land access negotiations; supporting parties to negotiate agreements based on principles of mutual benefit and coexistence; and providing low cost and efficient dispute resolution avenues.

Lessons from the trial initiatives will inform the development of new voluntary statewide land access agreements.

Secure enduring community benefits for host communities

Securing long-term benefits for communities that host minerals industry activity can provide a catalyst for broader regional economic development, and can offset potential mining development on local infrastructure and amenities.

CSIRO found that trust is central to building strong relationships between industry and the communities they work alongside, and that equitable sharing of benefits from mining was one contributor to Australians trusting and accepting the mining industry.

Many mining operators deliver community grant programs to contribute to their communities.

We will examine options for a community benefit scheme to share benefits from resource operations to deliver measurable, enduring benefits within an accountable, transparent scheme. This would include benefits during closure and subsequent activities and involving communities in rehabilitation planning.

A key pre-condition of ensuring a long-term enduring benefit from mining activities is to involve communities in rehabilitation planning, to provide greater confidence about long-term land forms, and management arrangements after mining ceases. We are piloting community involvement in rehabilitation planning for coal mines as part of the response to the Hazelwood Mine Fire Inquiry. Regulations and guidelines will set out requirements and expectations for the Declared Mine Rehabilitation Plan, which will also include a community and stakeholder engagement plan. There is opportunity to further roll out this approach to other mines.



ACTION AREA 2:

ADVANCING GEOSCIENCE AND ENCOURAGING MINERAL EXPLORATION AND DEVELOPMENT

What will you see?

- A richer map of Victoria’s geology
- More geoscience data for industry and the community
- Increased interest in Victoria’s mineral prospectivity
- Increased investment in mineral exploration

Achievements to date

For more than 165 years, the Geological Survey of Victoria (GSV) has studied and mapped the geology of Victoria, applying a range of geoscientific disciplines for public good, and to understand the economic potential of the state’s earth resources.

In recent years we have focused on the state’s most prospective geological provinces and commodities, while continuing to support mineral exploration and development across the state. Knowledge of geology and mineral systems is a public good that informs potential development of Victoria’s resources as well as contributing to our understanding of groundwater, the environment and geologic hazards.

Geological data underpins the development of geoscience concepts and models to identify prospective areas, which assists in reducing exploration and development risk by focusing knowledge and industry effort, and accelerating mineral exploration and ultimately development.

Case study Stavelly ground release tender and TARGET Minerals Exploration Initiative

The Victorian Government has released 11 new large exploration licence areas for tender, for minerals exploration in the Stavelly Arc (excluding coal and gas exploration), with up to \$500,000 in mineral exploration grants per block available, from the Victorian Government’s \$15 million TARGET Minerals Exploration Initiative.

The tender is a key part of an ongoing project led by DEDJTR to attract investment in minerals exploration to the region, whilst working with local communities to understand what is important to them, how exploration works and how it’s regulated.

ACTION AREA 2: ADVANCING GEOSCIENCE AND ENCOURAGING MINERAL EXPLORATION AND DEVELOPMENT

The Victorian Government has backed its geoscience to encourage mineral exploration through co-funding exploration drilling under the \$15 million TARGET mineral exploration grant program. Through TARGET, the government aims to facilitate investment and generate jobs in regional Victoria by stimulating responsible exploration of Victoria's mineral resources. To date, more than \$3.4 million has been awarded to support 15 projects in the Stavely and North Bendigo geological provinces. Renewed interest in gold prospectivity has been a significant driver of some regional economies, and earth resources has been identified as a potential future growth industry in several Regional Growth Plans. The grant program provides up to 50 per cent co-funding for base metals and gold exploration through a range of eligible minerals exploration activities. All grant applications are assessed by an independent technical panel to ensure grant recipients demonstrate a high-level of technical and social capabilities. TARGET recipients are required to provide all geoscience (physical and digital) data collected to the government to enrich publicly available datasets.

Case study Navarre Minerals - TARGET grant drives early stage mineral exploration in regional Victoria

A \$626,000 TARGET (Round 1) grant enabled Navarre Minerals to develop an effective exploration methodology and program which resulted in a new gold discovery (Resolution Lode) in western Victoria. The company continues to use this methodology to further its understanding of the surrounding geology and has resulted in further gold discoveries in the region.

The discovery of the Resolution Lode led to a significant mineral exploration program to identify and test several additional targets.

Since being awarded a Round 1 TARGET grant in June 2016, Navarre Minerals' annual mineral exploration expenditure across its licences has increased more than ten-fold from \$217,000 in FY15/16 to \$2.6 million in FY17/18. This has led to an increase in jobs through the employment of additional geologists and field staff and an increase in local services (e.g. drillers, transport companies, accommodation, food etc.)

The TARGET grant helped the company to raise capital to continue its exploration program.

Priority Actions

Grow our pre-competitive data and modern geoscience concepts

To increase the amount of geoscience data available for industry and the community we will:

- undertake innovative modern pre-competitive data acquisition across large areas to better understand the unique geological features that influence Victoria’s geology and mineral prospectivity
- modernise and improve our geoscience data capture and delivery systems
- undertake more analysis and programs to identify new opportunities
- include in all Victorian Government major project construction contracts, a requirement to collect and make available to the GSV, geological data and core samples, reducing the cost of Victorian major projects.

The data will underpin development of geoscience concepts, reduce exploration and development risk by focusing industry efforts in the most prospective areas, and accelerate mineral exploration.

Pre-competitive geoscience data can drive future discoveries, job creation, and investment.

Conduct competitive tenders for new mineral exploration opportunities to attract high-performing explorers

To encourage investment by international and domestic companies in Victorian mineral exploration we will:

- design and release strategic ground packages in highly prospective areas
- work with universities, researchers and industry to focus innovation and technical adoption of low impact mineral exploration techniques and advance deep mineral exploration and development.

Areas north of Bendigo share similar geological features with the existing Fosterville Gold Mine, whose recent excellent results have placed this area on the radar internationally with quality gold exploration companies.

Planning for future releases will commence following the northeast seismic study data curation and modelling.

Case study Geological Survey of Victoria to deliver new pre-competitive data and knowledge from northeast Victoria in 2019

GSV conducted a deep seismic survey in northeast Victoria in early 2018. The survey is part of a greater collaborative geoscience research project focusing on the rock types, faults and their distribution, and mineral potential.

The survey was conducted in three lines for a total of 511 km in northeast Victoria.

The data will be used by GSV to help build a publicly available, digital three-dimensional (3D) geological model to understand and communicate the region’s geological evolution, architecture and potential prospectivity.

Case study Fosterville Gold Mine

The Fosterville operation is a high-grade, low-cost modern underground gold mine near Bendigo. It is currently Victoria's largest gold producer. Recent mineral exploration and development success at the Fosterville operation exemplify Victoria's gold potential.

The impact of pre-competitive geoscience data, knowledge and models

Advanced geoscience work by GSV has identified that the area around Bendigo and Fosterville could hold up to 32 million ounces of gold – that's gold out there yet to be found.

"The availability of pre-competitive geoscience data and access to knowledge in the form of geological models has been critical for our geological understanding and gold exploration programs."

Ian Holland, Vice President Australian Operations, Kirkland Lake Gold.

Kirkland Lake Gold discoveries and production

The Fosterville operation produced 263,845 ounces of gold in 2017, up from 151,755 ounces of gold in 2016¹ and is targeting annual production of up to 400,000 by 2020².

In mid-2017, the mine owner – Fosterville Gold Mine Pty Ltd (a wholly owned company of Canadian mid-tier gold producer Kirkland Lake Gold) – increased its reported gold reserves to 1.7 million ounces worth approximately \$2.85 billion at current prices – more than doubling the company's previous estimates of the mine's reserves.

The Fosterville operation had the world's best mineralised gold equivalent drill intersection for the first half of the 2017 calendar year – a further three intersections were included in the total ten gold equivalent drill intersections reported worldwide in the same period. In 2018, year to date, the Fosterville operation has produced 141,305 ounces of gold at an average grade of 18.7 grams per tonne and an average operating cost of \$261 per ounce. Fosterville is one of the world's most remarkable underground gold deposits right now.

The discovery of additional (high-grade) reserves has resulted in a significant increase in mineral exploration spend by the company in Victoria¹. The gold reserve upgrade and record production will see an expansion that will create more jobs and boost the local economy.

The processing path for the ore mined at the Fosterville operation involves crushing and grinding followed by flotation, bacterial oxidation and carbon-in-leach circuits. The modern sulphide treatment plant is one of the world's leading BIOX systems and has achieved record gold recoveries. In addition, a gravity gold circuit was installed at Fosterville in 2016. The final product is bars of gold doré, a semi-pure alloy of gold and silver.

Responsible mining

Kirkland Lake Gold is a member of the Minerals Council of Australia (MCA) and is signatory to Enduring Value – the Australian Mining Industry Framework for Sustainable Development. As a signatory to Enduring Value, the Company is committed to continuous improvement in sustainable development performance through progressive implementation of the International Council on Mining and Metals' 10 Principles of Sustainable Development (ICMM) principles and elements.

Regional impacts

The Fosterville operation supports 570 highly-skilled jobs (420 employees and 150 contractors); eight out of ten employees live in the Greater Bendigo region. In the 2017 calendar year the Fosterville operation directly contributed \$164 million in goods, services and wages to the local economy.

Minerals exploration and production success at the Fosterville operation has led to a significant recent uptake in minerals exploration licences in north central Victoria. And in turn, an overall increase in year-on-year exploration activity spend in Victoria. Victoria is currently recognised on the domestic and international stage as a destination of choice for modern gold exploration investment, with Kirkland Lake Gold the best performing stock on the Toronto Stock Exchange in 2017³.

¹ Kirkland Lake Gold, <http://www.klgold.com/assets/operations-and-projects/australia/operations/fosterville-mine/default.aspx>, 2017.

² <http://www.klgold.com/news-and-media/news-releases/press-release-details/2018/Kirkland-Lake-Gold-Reports-Strong-Earnings-and-Cash-Flow-in-Q2-2018-Improves-2018-Production-and-Cost-Guidance/default.aspx>

³ <http://www.melbourneminingclub.com/events/luncheons/tony-makuch-president-chief-executive-officer-kirkland-lake-gold/> (35 minutes, 10 seconds)

Low impact mineral exploration, and deep mineral exploration and development technologies are critical for Victoria. Our ability to attract footloose capital relies on the cost competitiveness of Victorian mineral exploration and mining. Reducing the surface footprint of mining also lessens the environmental and social impact. This is an area where investment by industry and government can make a real difference.

Release a Victorian resources prospectus to attract investment

To increase interest in Victoria’s mineral prospectivity we will:

- develop a Victorian resources prospectus that will highlight Victoria’s mineral resources, available ground, forthcoming ground releases, incentives to invest and available facilitation services
- undertake needs analysis for the minerals processing industry to identify areas for government to unlock niche growth potential

The prospectus will include technical (mineral resource) and non-technical components, and include services offered by technical professionals in GSV, Invest Victoria and Trade Victoria.

The new *Earth Resources Sector Indicators overview* will provide data on various indicators for Victoria’s earth resources sector, including the minerals sector. This will be included with the prospectus.

The *Advancing Victorian Manufacturing Strategy* provides support to Victorian manufacturing businesses, including minerals processing. The needs analysis for the minerals processing industry will identify whether there are issues unique to that industry, and a role for government to address the identified issues. This will involve bespoke engagement with companies to identify growth opportunities.

Integrate resource and freight transport planning

To support the mineral resources supply chain we will undertake integrated resource and freight transport planning to leverage Victoria’s strong infrastructure offering for resources companies.

Victoria has excellent rail and road infrastructure ready for expanded mineral industry operations.

The Victorian Government is developing a Principal Freight Network plan to ensure Victoria’s freight and logistics system meets the needs of a growing population and economy. Critical mineral resources transport networks will be recognised in government transport and infrastructure plans, and incorporate potential resources projects as part of the Principal Freight Network. The plan will protect supply chain connectivity, and be underpinned by improved data collection and sharing.

Support relevant skills development for mining and mining services

Melbourne and regional Victorian towns are great places to live and work in mining. To ensure that Victoria attracts talent to take advantage of the new mining boom in the state we will:

- support skills development for mining and mining services in regional Victoria, including through bespoke apprenticeship schemes and TAFE
- enter into partnerships with the MCA and the AusIMM to promote the attraction and retention of talent into Victoria and a pathway into the sector for secondary and tertiary students.

We will work with the AusIMM and universities on a talent pathway for engineers and talent attraction strategy for the sector. The Victorian Skills Commissioner will monitor skills shortages and ensure access to relevant and suitable training in areas such as diesel and heavy vehicle mechanics and engineering. The Victorian Government has already announced Certificate IV in Engineering, and Certificate II in Engineering Studies as part of its Free TAFE for Priority Courses initiative.

ACTION AREA 3:

VICTORIA AS A GLOBAL MINING HUB

What will you see?

- Victoria is globally recognised as a mining and METS hub
- Victoria's mining services exports continue to grow as a proportion of total exports
- IMARC is part of the global 'grand slam' of mining conferences
- An increase in the number of global mining and mining services companies headquartered in Melbourne

Achievements to date

The Victorian Government promotes trade, and delivers investment attraction and facilitation services.

We are building strategic trade alliances with mining economies across Asia, Latin America, the Middle East and Africa to create new opportunities for partnerships between Victorian and international businesses.

Case study International Mining and Resources Conference

Hosting the IMARC in Melbourne will connect global and local mining companies with technology, finance and other businesses to identify new opportunities here and overseas. Last year's conference attracted over 4,100 mining leaders, policy makers, experts, innovators and educators from 82 countries including 33 international mining ministers and governments.

Of the delegates surveyed by the conference hosts, two thirds indicated they would generate new business as a result of attending IMARC.

In 2018, the International Council for Mining and Metals (ICMM) will hold its bi-annual council meeting in Melbourne, alongside IMARC. The ICMM comprises the CEOs of the top 25 mining companies in the world, with a focus on sustainable development and social responsibility. This is the first time the ICMM has met outside of London.

Priority Actions

Support expansion into global markets

To ensure Victoria's mining services exports continue to grow as a proportion of total exports we will grow investment and services exports offerings through a range of actions including export facilitation, hosting Australia's global mining conference, and an expanded trade mission program.

Technological improvement and automation is driving increased productivity in Australia's mining sector, and innovative Victorian mining solutions are in demand all over the world. Businesses from regional Victoria have operations offshore and export products and services. These include Gekko Systems, Australian Turntable Company, Hofmann Engineering, Keech Castings and Deepcore Drilling. For example, Gekko Systems Pty Ltd produces global mining equipment and tech services, employs 120 people in Ballarat and exports to more than 40 countries. New technology is developed in Victoria by Rio Tinto's Technical Development Centre in Bundoora, the ARC Centre of Excellence in Ore Deposits (CODES) at the University of Melbourne, and many other collaborative laboratories and programs.

Over the medium-term the Victorian Government will work with industry and universities to identify opportunities for dedicated shared facilities, and research infrastructure to support continued growth in Victoria's METS and micro-junior start-ups. We will explore the opportunity to leverage a purpose built 'mining growth centre'.

We will increase attendance at IMARC, Australia's largest and only truly global mining conference. IMARC is the centrepiece for business engagement driven by the resources sector and capitalises on the state's competitive advantage as global mining centre. IMARC promotes Victoria as a global hub for resources business and services and brings together senior influential decision makers and leaders from the international resources industry. IMARC serves as a vehicle to engage the resources sector globally to:

- internationalise Victorian businesses
- build strategic relationships and business connections in established and emerging markets
- consolidate and promote Victoria's value proposition and
- attract investment into Victoria's businesses and resource base.

We will expand our post-conference activities to further capitalise on opportunities created at the conference.

We will expand our trade missions to the key international mining events, beyond the Prospectors and Developers Association of Canada, including to South Africa, and countries across Latin America. Mining and METS sectors are included in the Victorian Government Latin America Trade and Investment Strategy. The Victorian Government will use international engagement and economic diplomacy to build bilateral relationships, create global partnerships, foster knowledge exchange and promote Victoria's capabilities in order to support investment and trade outcomes. We will share Victorian Government capabilities and knowledge in areas such as geoscience, community engagement and land access to further access opportunities for Victorian businesses.



Attract headquarters of mining and METS companies to Melbourne

To increase international investment we will develop targeted engagement campaigns to attract mining headquarters and METS to Melbourne.

Situating the head offices of resources companies, METS, professional bodies and key financial institutions in Melbourne provides Victoria with an unparalleled reputation as a global hub for mining businesses. We aim to attract regional headquarters of leading mining companies, including additional members of the ICMM. The ICMM members maintain high standards of sustainable development, and hosting these businesses can generate valuable benefits in Victoria.

Promote Australia's mining codes and standards globally

To support Australian mining companies we will continue to encourage international jurisdictions (and their responsible governing bodies) to adopt the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, known as the Joint Ore Reserves Committee (JORC) Code.

Australian companies, who already operate and report under the JORC Code, will be able to leverage their experience working under those standards when competing internationally. Codes and accreditation support Australian mining companies to voluntarily apply international standards for better social licence.

ACTION AREA 4:

IMPROVE REGULATORY PRACTICE
AND INDUSTRY COMPLIANCE

What will you see?

- A regulatory system that is modern, proportionate and robust
- Regulatory decisions that are timely, consistent, informed, responsive and transparent
- Increased regulatory certainty for investors and improved timelines for approvals
- Increased visibility and transparency of the regulation and decision-making process
- Increased industry compliance

Achievements to date

Earth Resources Regulation (ERR), sitting within DEDJTR, and regulates the industry.

ERR is making more timely and consistent decisions. Since the commencement of the regulatory reform process in 2017, ERR has significantly reduced the processing backlog for work plan and licence applications.

The Earth Resources Approvals Coordination Group was established in September 2017, to act as a clearing house for 'logjams', or applications stuck in the regulatory system, and to identify opportunities to tailor approval processes for strategically significant projects. The Earth Resources Approvals Coordination Group's membership consists of Deputy Secretaries and Chief Executives from key Victorian Government agencies.

Anna Cronin was appointed in the dual role of the Commissioner for Better Regulation and the Red Tape Commissioner, enabling her to advise the Victorian Government on a broad range of regulatory reforms, with a clear focus on improving regulation and reducing red tape. The staff of the Office of the Commissioner for Better Regulation and the Red Tape Unit work closely to provide a "one-stop shop" for the businesses and not-for-profit sector.

Getting it right

The Victorian Government's *Getting the Groundwork Right Implementation Plan* for better regulation for mines and quarries (May 2018) set out a plan to increase community confidence in the regulation of mines and quarries and enable clearer regulatory decision-making. The plan will build a respected and confident regulator and a regulatory regime that is ready for the future.

The main elements of the plan are to:

- simplify assessment processes for proposed mines and quarries, while strengthening the regulatory focus on the most complex risks
- provide clearer information to industry and the community about regulatory processes and decisions

- improve coordination across the regulatory system, including better engagement between ERR and other regulatory authorities
- ensure laws and regulations governing the earth resources sector are fit for purpose, based on modern technologies and best practice regulatory and governance frameworks
- ensure staff receive appropriate training and development

To support the implementation plan, the Victorian Budget 2018/19 included \$12.7 million for ERR. The funding will deliver a program of work that will simplify regulatory procedures and provide for an upgraded online application system.

Priority Actions

Simplify processes, sharpen risk focus, provide clear and timely information

To ensure better regulatory decisions we will simplify and streamline regulatory procedures, provide for an upgraded online application system and update Codes of Practice.

New guidance materials for the submission and assessment of variations to approved plans will be supported by procedural improvements, and redeveloped standard operating procedures.

Differentiated application pathways are being developed for licences, work authorities, work plans, and variations to work plans. Standard risk management tools are being developed as an option for operators to manage a range of common mining industry risks.

We will update the Code of Practice for Mineral Exploration and other codes to implement the new streamlined approvals pathway.

Improve coordination between regulators

To improve regulatory outcomes we will work more closely with other regulators to share information and improve coordination under the existing legislative framework.

We will facilitate effective information flow across agencies, and a shared understanding of risk, to ensure each regulator in the system can achieve its regulatory objectives. ERR will do this under its working agreements with members of the Earth Resources Regulators Forum — the Environment Protection Authority (EPA), WorkSafe Authority, Department of Environment, Land, Water and Planning, and the Country Fire Authority. It will also improve coordination with the Latrobe Valley Mine Rehabilitation Commissioner, councils, Catchment Management Authorities and rural water authorities.

We are improving coordination with other regulators, starting with clarifying interactions between approvals processes and the planning system. A Planning Practice Note will improve guidance for local councils making decisions with respect to planning approvals for mines, and strengthen coordination between levels of government.

The government is also exploring further opportunities to provide greater certainty for industry and community.

We will implement the reforms in the Victorian Government response to the Inquiry into the EPA in a coordinated, efficient manner. The reforms include requiring mine work plan applications and variations (including rehabilitation plans) to be referred to the EPA to determine environmental conditions related to waste and pollution, to protect air, water and land quality and minimise noise.

In the report *Economic Building Blocks for Victoria*, the Premier's Jobs and Investment panel identified that there are opportunities to reduce costs and timeframes associated with planning approval processes for significant business development.

Mining projects can span multiple sites across different Local Government areas and span multiple regulators. For instance, a project may have a mine in one municipality, a processing facility in another municipality, and a transport hub in a third municipality. Decisions on such projects require integrated consideration across a range of economic, social and environmental factors.

A significant delay in approvals in one municipality will often delay the entire project, even where approvals are already granted in the other municipalities in which the project operates. The same also applies where statutory approvals are required across multiple regulators or where access to essential services is required (e.g. energy, water, transport, labour). From an industry and community perspective, dealing with 'one proponent' and 'one government' saves time, is simpler, and maintains continuity in terms of who you can talk to throughout a lengthy and complex process.

Over the medium-term we will work with a range of departments and regulators to explore options to deliver a more effective, clear, and timely approach to support the development of state and regionally significant resources projects.

ACTION AREA 4:
IMPROVE REGULATORY PRACTICE AND INDUSTRY COMPLIANCE

Build regulator capability to support industry compliance

To support regulatory compliance we will lift the regulatory capability and capacity to meet the expectations of industry, co-regulators and the community.

Training and skills development will underpin the implementation of standard operating procedures, and reinforce the regulator's role in supporting compliance. This is a high priority for industry.

Investment to upgrade information technology systems will deliver real-time, transparent application status, and the DEDJTR Earth Resources website will be redesigned to ensure these are fit for purpose.

Measure, evaluate and report on regulatory and industry performance

To improve regulator transparency we will regularly publish regulator performance monitoring to increase visibility and transparency of the regulator, and its decision-making processes.

The reports include information about the number of licence and work authority applications and variations at a point in time, the number and timeliness of work plan application assessments, as well as industry compliance performance. ERR will continue to improve its regulatory performance and its reporting to enhance Victoria's reputation as an attractive destination for investment.

We will publish Statutory Authorisation (this covers approvals and licensing functions) performance reports monthly, quarterly, and annually. Performance reports on compliance are currently produced quarterly and annually.

We will look for ways to enhance accountability and transparency, including reviewing the current suite of reports published by ERR.





ACTION AREA 5:

DELIVER MODERN, FIT-FOR-PURPOSE LAWS

What will you see?

- More options for responsible and safe mineral exploration and mining activity
- Better management of risks to public health, the environment and infrastructure and costs to government and industry
- Increased transparency and clarity for investors and community
- Improved coordination across government

Achievements to date

The Victorian Government is taking steps to build community confidence in rehabilitation and management of risks at end of mine life.

On 7 August 2018 the *Mineral Resources (Sustainable Development) Amendment Bill 2018* ('the Bill') was introduced into Parliament. The Bill:

- imposes an obligation on declared mines to develop new declared mine rehabilitation plans, which incorporate post-closure plans
- makes post-closure plans a legal obligation on the mine land owner, which survive any title transfer and
- establishes a new Mine Land Rehabilitation Authority as a successor to the Latrobe Valley Mine Rehabilitation Commissioner. This Authority can act as a land owner, and take on post-closure responsibilities, where the state accepts transfer of declared mine land in exchange for receiving a payment from the mine owner.

Currently only the Latrobe Valley coal mines are declared under the MRSDA. However, the new provisions are designed to apply to other mining sites across Victoria.

The Bill also introduces amendments to the MRSDA to: broaden compensation provisions to allow for mutually-agreed in-kind arrangements; extend the tenure for prospecting licences from five to seven years; and broaden the basis for public comment on licence applications to include all commentary, not just objections.

In December 2017, the Victorian Government and CopperChem Limited (the parent company of WHSP Stockman) also finalised an agreement to ensure the successful rehabilitation and monitoring of the Stockman Project site upon the completion of mining operations. The agreement requires WHSP Stockman to fund the total cost of monitoring and maintaining the Tailings Storage Facility in perpetuity by making a payment to the state immediately prior to the closure of the site, following the cessation of mining and completion of site rehabilitation. This is the first agreement of its kind in Victoria and sets a new pathway for improved rehabilitation and post-closure outcomes.

Priority Actions

Develop flexible outcomes-based tenure framework

To encourage exploration while maintaining efficient ground turnover, we will introduce a merits and outcomes-based licensing framework. The framework will minimise distortions to investment decisions but retain incentives to encourage exploration and efficient ground turnover.

We have listened to industry concerns and will review the MRSDA licensing regime to provide flexibility for a proponent to demonstrate progress in exploration beyond submitting expenditure reports. A merits-based assessment approach will be introduced for licensing decisions to encourage exploration activity. This will be a flexible, adaptive, outcomes-focused approach to tenure that takes account of market dynamics, ground conditions and progressive mineral exploration findings. It will include proportionate requirements for reporting mineral resources at relevant stages.

We will develop a ground turnover policy to encourage exploration while ensuring licence holders are able to continue to operate.

Over the medium-term we will explore more innovative approaches to rights allocation to ensure we maximise the benefits to Victorians, attract socially and environmentally responsible explorers, and broaden community consultation and engagement requirements, particularly for regional communities.

Increase transparency of work plans and release of industry exploration data

To increase transparency and provide clarity for investors and community we will amend the MRSDA and/or regulations to facilitate the publication of licences and work plans (including rehabilitation and community engagement plans), where this information is not commercial-in-confidence.

We will revise requirements for information disclosure and reporting when remaking regulations to ensure these requirements are necessary and proportionate in meeting regulatory objectives, and delivering community access to relevant, non-commercially sensitive information. Commercial-in-confidence data will be appropriately protected where there is a genuine need for non-disclosure. Where possible, communities should have access to proposed work plans and licences, particularly for matters of environmental impacts such as noise, dust and water.

In addition, we will require more timely reporting and public release of new data generated by mineral explorers, where it does not compromise the commercial rights of exploration companies.

Strengthen rehabilitation, post-closure and engagement obligations

To ensure better risk management we will:

- implement a new approach to rehabilitation planning and execution, closure and post-closure land management in legislation and strengthen community engagement requirements
- create a new Declared Mine Land Rehabilitation Authority, initially focused on the rehabilitation of the Latrobe Valley coal mines, with the intent to broaden to other mining sites across Victoria.

The government is taking steps to proactively manage the end of mine life by strengthening rehabilitation, closure and post-closure requirements for mines and former mine land that pose significant geotechnical, hydrogeological, hydrological and water quality risks to public safety, the environment or infrastructure. The above actions implement the government response to recommendations of the Hazelwood Mine Fire Inquiry and will be considered for a wider roll-out in the future.

We commit to review the rehabilitation bond policy for all mines, drawing on the Hazelwood Mine Fire Inquiry response.

Community engagement requirements will be strengthened to ensure best practice across operators. This will draw on the learnings and approach taken for declared mines and will enshrine improved practices achieved through tender processes as requirements for all operators in Victoria.

Review regulator governance arrangements

To deliver modern fit-for-purpose laws we will:

- examine the structure and governance of the regulator, to ensure these are sufficiently robust to support leading regulatory practice
- monitor implementation of the EPA and WorkSafe 'general duty' model to assess whether a general duty model should be applied to the regulation of earth resources.



MONITORING AND REPORTING

This strategy will be implemented in partnership with industry and community.

The minerals sector is cyclical and globally connected, and this strategy is only one of the factors influencing the economic performance of the sector. Measures are provided for the outcomes of the strategy, and targets are provided in specific areas where the strategy can have a stronger influence.

The outcomes of this strategy should deliver increased investment, jobs, regional development, value of production, exports, and responsible environmental and social impacts. Metrics for the outcomes are presented below, and most are published by the department already. The government will work with CSIRO to collect disaggregated data on Victorian community attitudes to the mineral resources sector. The CSIRO reported data currently relates to ‘mining’ which includes minerals, petroleum, and extractives.

Strategy targets

Outcomes	Measure	Baseline	Target
Exploration	Metres drilled in new and existing mineral deposits ¹⁰	180,000 average since 1995	1 million metres by June 2023 (cumulative total over 5 years)
Exploration Investment	Mineral exploration expenditure	\$40 million average since 2010	\$220 million by June 2023 (cumulative total over 5 years)
Significant discovery	>1 million ounces gold or 0.5Mt base metals (copper equivalent) contained metal	Early 2000s (last time a significant discovery of this size occurred in Victoria).	One significant mineral resource discovery by 2028

¹⁰ reported in Earth Resources Sector Indicators 2016–2017

Strategy outcomes and measures

Outcomes	Measure	Current state (2016–17 unless stated otherwise)
Employment	Employment ¹¹ (Note: employment figures include all of earth resources sector including extractives, coal, oil and gas)	11,000 (February 2018)
	Industry estimates of Mining and METS combined direct employment	88,027
Value of production	Value of production ¹¹	\$778 million
Community confidence	CSIRO Victorian Attitudes to Mining ¹¹	Score 3.61
Regulatory performance and industry compliance	Earth Resources Regulation performance reporting ¹² Departmental performance reporting ¹² Public sustainability reports ¹²	See earthresources.vic.gov.au/earth-resources-regulation/about-us/regulator-and-industry-reporting
Victoria as a global mining hub	Market capitalisation of Victorian-based mining companies	\$188 billion in 2016
	IMARC attendance	4100 delegates (2017)

¹¹ reported in Earth Resources Sector Indicators 2016–2017

¹² earthresources.vic.gov.au/earth-resources-regulation/about-us/regulator-and-industry-reporting



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