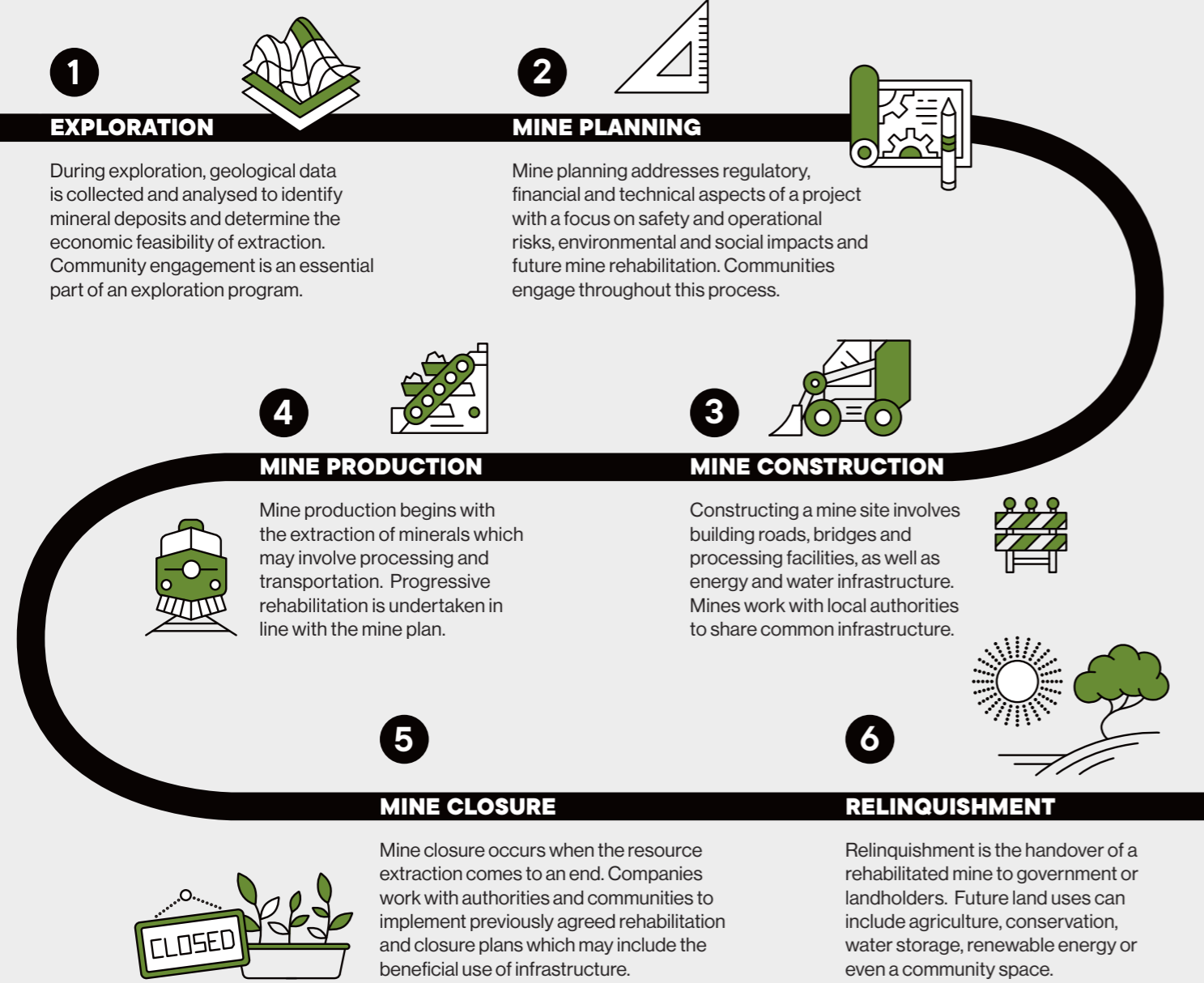


# Lifecycle of a mine

Closure and rehabilitation are planned across all stages of mine development and operation, from design to closure. Monitoring land after mining will often continue for many years.



## Australian mining industry initiatives

MCA member companies are committed to strong environmental performance.



### TOWARDS SUSTAINABLE MINING

MCA member companies are adopting the TSM ESG system which will measure and regularly report on site-level management of social performance, including Indigenous and community relationships and environmental stewardship, including climate change, to the community.



### ENDURING VALUE

Enduring Value is the Australian Mineral's Industry Framework for Sustainable Development which includes key commitments to mine rehabilitation and guidance to responsible mine closure.



### CLIMATE ACTION PLAN

The Australian minerals industry supports the Paris agreement and has an ambition to achieve net zero emissions by 2050.

Learn more at: [minerals.org.au](http://minerals.org.au)



There's more to  
**Victorian Mining**

Ph. (03) 8614 1851  
Email. [info.vic@minerals.org.au](mailto:info.vic@minerals.org.au)  
Website. [minerals.org.au/victoria](http://minerals.org.au/victoria)  
February 2023

RE  
DIS  
COVER  
ER  
Victoria

Fosterville Gold Mine



## The facts on mine closure and rehabilitation

Mine rehabilitation is regulated under the *Mineral Resources (Sustainable Development) Act 1990 (MRSDA)*. It is integral to Victoria's mining approvals regime.

Victoria's environmental protection legislation, the *Environment Effects Act 1978*, may also require a full assessment of mining developments. Rehabilitation and closure technical studies form part of a detailed and rigorous Environmental Effects Statement (EES) assessment.

Rehabilitation is a legal obligation that says a holder of a mining licence rehabilitate land after mining. In fact, a mine cannot commence without a detailed closure plan, a rehabilitation plan, and payment of a bond to the government.

Mine closure plans define closure commitments. They identify how environmental, social and geotechnical risks are mitigated, including public health and safety, and they set up a framework for ongoing review of closure.

Rehabilitation plans are prepared in consultation with landholders and take into consideration the characteristics of the land, surrounding environment, stabilisation and agricultural productivity.

Rehabilitation does not only occur at the end of a mine's life. Companies progressively rehabilitate mined land where possible.

Post-mining land use can vary from farming land to native vegetation or recreation. Monitoring continues for years to ensure it meets this obligation and a bond cannot be returned until this obligation is met.

### Rehabilitation bonds

Victorian law requires companies to provide financial surety to the government in the unlikely event that rehabilitation obligations cannot be met. These funds cover third party costs of rehabilitating mine sites.

Mining cannot commence until a bond is paid and rehabilitation objectives must be met before the bond is returned and mined land can be divested.

### Rehabilitation in minerals exploration

Exploration programs have minimal environmental impacts. Clearing is kept to a minimum and any drilled areas are rehabilitated. Victoria's Code of Practice for Mineral Exploration, and exploration licence conditions, require explorers to rehabilitate any disturbed areas after exploration.

### DID YOU KNOW?

Landholder, Traditional Owner groups and the broader community have input on mine closure and rehabilitation at each step from start to end of the mine lifecycle.



**0.1%**

### MINING LAND

Proportion of Victoria's land area covered by mining and quarrying.  
Environmental Sustainability Victoria



**3rd**

### ENVIRONMENTAL SCIENTISTS

Mining is Australia's 3rd largest employer of environmental scientists.  
Department of Employment, Job Outlook 2019



**\$824.5m**

### FINANCIAL BONDS

Total financial bonds held by the Victorian Government in 2021-22.  
Earth Resources Regulation





## Community benefits from wetlands at Splitters Creek

Since 2017, around 3.7 hectares of farmland neighbouring Mandalay Resource's Splitters Creek Evaporation Facility has been restored to its original wetlands landform.

In addition to providing habitat for native and terrestrial species, as well as an open space for the community to enjoy, the wetlands filters surface water run-off from the evaporation facility and adjacent farmland through a series of drainage channels and dams.

Rehabilitation involved the removal of invasive species such as willows and cypress, and the repair of dam embankments, construction of flow pathways and installation of habitat logs.

Mandalay Resources partnered with the Taungurung Traditional Owners, which provided opportunities for cultural heritage knowledge sharing. The local community, environmental groups and conservationists also got behind the project, participating in a wetland planting day.

➤ The Splitters Creek Wetlands Project  
Costerfield Central Victoria  
**Mandalay Resources**



## Rehabilitation to restore pre-mining landform at Stawell



Stawell Gold Mines (SGM) is undertaking progressive rehabilitation of Davis Pit, backfilling the site using underground waste rock.

In late 2022, SGM seeded the surface with a grass cover crop, which will act as a natural dust suppression over summer and introduce biomatter back into the soil profile to provide microhabitats for future vegetation.

The final stages of rehabilitation of Davis Pit will involve a program of revegetation using native species in consultation with relevant local stakeholders.

SGM undertakes progressive rehabilitation of disturbed areas at its mining operations. Progressive rehabilitation prepares the mine site for its eventual closure by stabilising landforms, establishing vegetation, minimising erosion, and preventing sedimentation of surface water features.

➤ Davis Pit rehabilitation  
Near Stawell  
**Stawell Gold Mines**



## Box-ironbark forest restoration in central Victoria

➤ Rehe's Pit backfill project  
Central Victoria  
**Fosterville Gold Mine**

In 2021, an open pit at Fosterville Gold Mine was returned to box-ironbark forest using plant species consistent with the surrounding area.

Around 3kg of native seeds collected from the local area by Goldfields Revegetation and Traditional Owners the Dja Dja Wurrung, were planted in the backfilled Rehe's Pit, an inactive open pit situated on Crown Land.

The final surface was domed to allow for future consolidation and settlement, and capped with

topsoil. Woody debris, such as logs and stumps, were placed over the backfilled area to provide habitat for fauna, and the area planted with species from the Box Ironbark Ecological Vegetation Class.

Fosterville Gold Mine is committed to responsible mining practices and undertakes progressive rehabilitation and continual environmental monitoring as part of its ongoing mining operations in central Victoria.



## Successful harvest from Avonbank rehabilitated test pit

Following the Avonbank Test pit and Demonstration Plant trials in 2019-2020, the test pit site was successfully rehabilitated back to productive broadacre agricultural land.

WIM Resource and local landholders successfully harvested the first crop of barley from its rehabilitated Avonbank site in 2021. A successful crop of lentils was harvested in 2022.

Partnering with Longerenong Agricultural College students studying an Advanced Diploma of Agribusiness Management, WIM has been focused on assessing soil health, crop growth and yield as part of ongoing monitoring and evaluation of the rehabilitated land.

Mineral sands mining typically involves a progressive mining method, whereby the land can be returned back to its pre-mining land use.

➤ Avonbank Mineral Sands Test Pit  
Near Horsham  
**WIM Resource**

