



FACT SHEET REHABILITATION

What is mine rehabilitation?

In Victoria, all mines are required to undertake site rehabilitation which leaves mined land safe, stable, non-polluting and sustainable, and available for ongoing land uses. Rehabilitation is a critical part of the overall mining process.

The whole-of-site rehabilitation objective is **'to restore land disturbed by mining to an equivalent (or better) agricultural land capability to enable a variety of productive agricultural uses'** – as detailed in Victoria's Earth Resources Regulation (ERR) guideline, *Preparation of Rehabilitation Plans*.

Australia's mineral sands industry is a world leader in sustainability and mine site rehabilitation. Throughout the life of a mineral sands mine, approximately 97 percent of the mined material is progressively returned to the mine void, and the landform restored.

Rehabilitation at the Goschen mine site

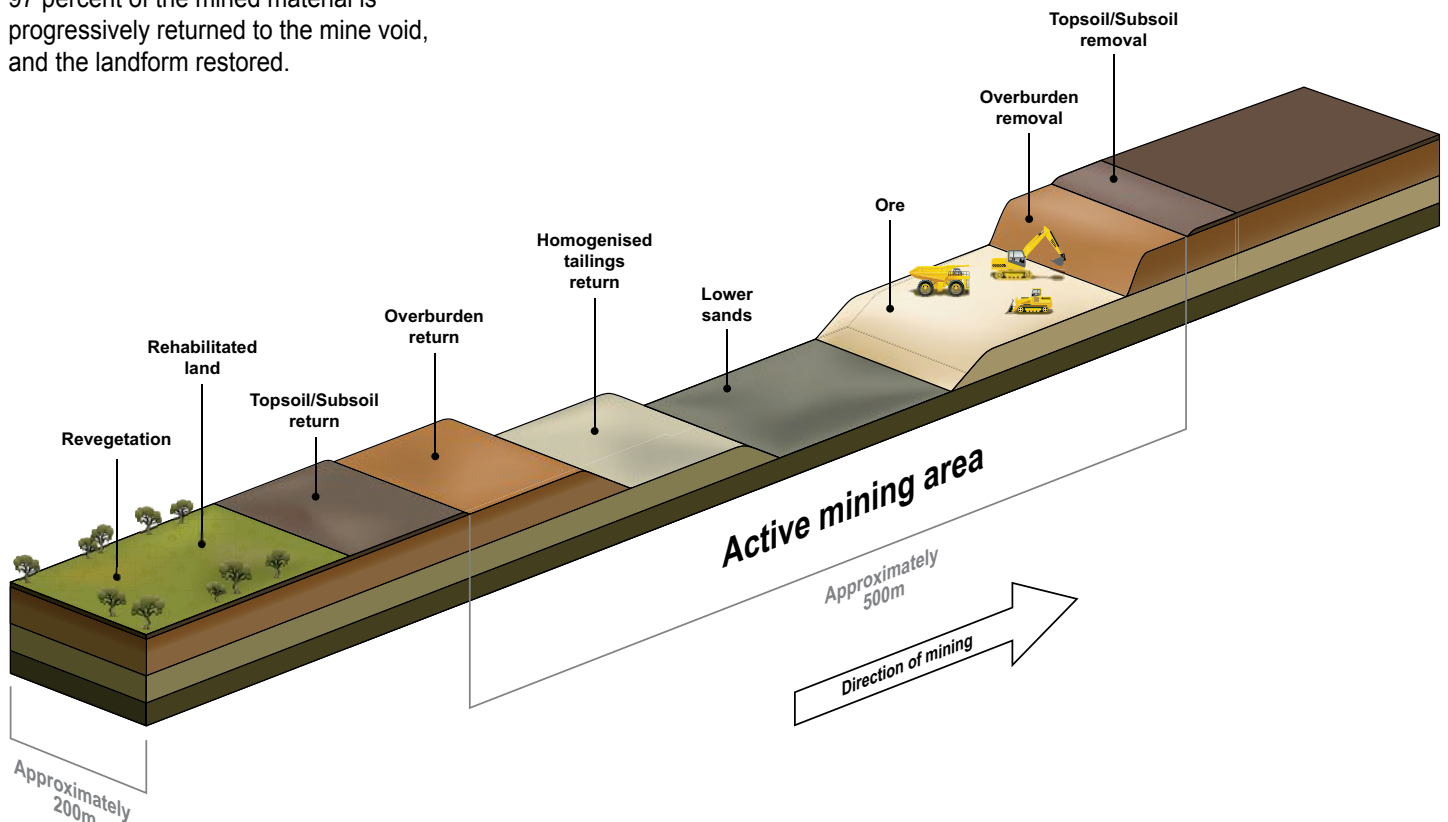
Progressive mine rehabilitation is a key component of the Goschen Project. Progressive rehabilitation is a moving hole approach – which means that as the mining operation progresses forwards, the mined area behind is rehabilitated progressively to minimise the area of disturbance, and reform the landscape more quickly.

At the Goschen site, rehabilitation will commence as soon as the first mining cells have been mined, tailings deposited, and overburden and topsoil replaced. The first crop grown on rehabilitated land is anticipated to be within two to three years of mining operations commencing.

Soil management process

Recognising that the soils of the Goschen site are a fragile commodity, rehabilitation will involve stripping topsoil and subsoils in thin layers (as determined by prestripping analysis) down to approximately one metre so that subsoils will not be mixed with topsoil or the C-Horizon material below the subsoil (the layer beneath subsoil which does not contain any organic matter, i.e. outside the root zone of crops).

Once carefully stripped, the topsoil and subsoil layers will be stored in separate stockpiles based on the pre-strip analysis and will be managed until required for rehabilitation. In the rehabilitation process, the soils will be returned in the same levels and depths as originally found.



Through informed planning, and strict protocols for reinstatement of the soil growing zone and substrate beneath, soils can be returned in a state similar to that which was removed.

The following aspects of the Goschen Project mine site closure and rehabilitation strategy will be applied to achieve the whole-of-site rehabilitation objective:

- Mine pits backfilled and stockpiles removed to reinstate levels and gradients similar to pre-mining conditions in accordance with the Environmental Management Framework
- Soil profile re-established to a minimum depth of one metre, including topsoil and subsoil
- Topsoil rehabilitated to pre-mining fertility or better
- Crop yields returned to pre-mining levels of production or better
- Crops and soils do not contain any pollution or increase in elements associated with mining above pre-mining levels
- Where desirable, infrastructure utilised during mining to remain for use by landholders (upgraded roads, upgraded electricity connections, water pipeline, etc.) – determined in conjunction with local government authority and landholders. If infrastructure is not required, it will be decommissioned and rehabilitated
- Roadside native vegetation restored consistent with the Ecological Vegetation Class present, and boundary fencing replaced.

How is mine rehabilitation regulated in Victoria?

The two key pieces of legislation governing rehabilitation requirements for mining operations in Victoria are the *Mineral Resources (Sustainable Development) Act 1990* (MRSDA) and associated Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2019.

The MRSDA establishes the legal framework to ensure mined land is rehabilitated and requires a:

- **Rehabilitation Management Plan** – prepared in consultation with landholders, and includes proposals for progressive rehabilitation, stabilisation and revegetation of mined areas, waste disposal areas, dams, and other land affected by the operation; and landscaping to minimise visual impacts and details of final rehabilitation and closure.
- **Rehabilitation Bond** – a financial security which must be provided by VHM prior to work commencing, to cover rehabilitation costs should VHM default on its obligations to complete rehabilitation. The rehabilitation bond is lodged with the ERR and is returned when ERR is satisfied that all works are complete, and the disturbed land has been fully rehabilitated.

The Regulations further specify what information must be included in the Rehabilitation Management Plan, including identifying and assessing relevant risks that may require monitoring, maintenance, treatment or other ongoing land management activities after rehabilitation is complete.

The *Environment Protection Act 2017* (EP Act) is also relevant as it establishes the framework for environmental protection, underpinned by the general environmental duty (GED) and duties for waste, contaminated land and incident notification and management.

USEFUL REFERENCES

- Earth Resources Regulation – Mineral industries regulation resources.vic.gov.au
- Department of Industry, Science and Resources – Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry industry.gov.au
- Minerals Council of Australia minerals.org.au

