Fact sheet

Progressive rehabilitation

October 2025

What is progressive rehabilitation

Progressive rehabilitation in mining refers to the ongoing process of restoring land and water as mining activities move through different areas of a site, rather than waiting until all mining is finished.

As soon as a section of the mine is no longer needed for operational purposes, rehabilitation begins. Progressive rehabilitation helps reduce environmental risks by limiting the amount of disturbed land at any one time, improves safety, and can speed up the achievement of final rehabilitation and environmental outcomes. It also allows for early identification and management of any issues, ensuring that rehabilitation is integrated into the overall mine planning and lifecycle, rather than being left as a final step.

Reasonably practicable

Clause 5 of Schedule 8A of the Mining Regulation 2016 has the effect of imposing a standard condition on all mining leases that:

'The holder of a mining lease must rehabilitate land and water in the mining area that is disturbed by activities under the mining lease as soon as reasonably practicable after the disturbance occurs.'

In the context of mine rehabilitation, 'reasonably practicable' refers to the obligation of mining lease holders to restore land and water disturbed by mining activities as soon as it is possible, considering all relevant circumstances. This standard is determined objectively, meaning lease holders must act as a reasonable person would, given their knowledge of the site, available rehabilitation methods, and the potential for environmental harm if rehabilitation is delayed. While cost may be considered, it cannot be used as a justification for postponing rehabilitation unless it is grossly disproportionate to the risk of ongoing environmental damage. Further details are provided in our Fact sheet: Reasonably practicable for mine rehabilitatio'.

Rehabilitation process

Mine rehabilitation is a phased process that begins even when mining operation are active. It includes active mining, decommissioning infrastructure, establishing stable landforms, preparing growth media, and re-establishing ecosystems and land use. Rehabilitation must be planned and executed in a timely manner, with allowances for factors such as weather or operational constraints. Lease holders are also required to identify and record foreseeable hazards that could impede

rehabilitation outcomes and conduct risk assessments to address these challenges. Continuous monitoring and corrective actions are essential to ensure that approved rehabilitation objectives are achieved.

Mine rehabilitation phases

The mine rehabilitation phases outline the step-by-step process used to restore land affected by mining, ensuring that each stage – from active mining to final sign-off – contributes to a safe, stable, and sustainable future for the site. This type of list is also acceptable if you need to make secondary and tertiary remarks.

1. **Active mining phase**

   During mining, the focus is on managing the land and resources to reduce future rehabilitation challenges. This includes saving topsoil and habitat materials for later use, managing waste such as tailings material and water, and taking steps to minimise environmental impacts. Actions taken during this phase, like careful handling of soils and materials, help set up the site for successful rehabilitation once mining is finished.

2. **Decommissioning**

   When mining in an area stops, the next step is to safely remove or demolish infrastructure such as buildings, machinery, and roads. Hazardous materials and contaminants are identified and cleaned up. Some structures may be kept for future use if they are safe and approved. Security measures are put in place to protect the site and the community during this process.

3. **Landform establishment**

   The land is reshaped to create a stable surface that matches the approved final design. This can involve filling in pits, shaping hills, and building drainage systems to manage water. Problematic materials, like tailings or contaminated soil, are safely contained. The aim is to make the land safe, stable, and ready for the next steps.

4. **Growth medium development**

   This phase prepares the ground for plants to grow. Topsoil and other materials are spread over the reshaped land, and soil treatments may be added to improve fertility. Erosion controls are put in place to protect the soil until vegetation is established. The goal is to create the right conditions for healthy plant growth.

5. **Ecosystem and land use establishment**

   Plants and other vegetation are introduced to the site, using methods like seeding or planting. The types of plants are chosen to match the final land use, whether it's native bushland, pasture, or another purpose. Early management includes watering, weed control, and pest management to help the new ecosystem get established.

6. **Ecosystem and land use development**

   As the plants and ecosystem mature, ongoing care is needed. This includes monitoring plant growth, controlling weeds and pests, and fixing any problems that arise. The aim is to help the area develop into a self-sustaining ecosystem or productive land use, meeting the approved rehabilitation goals.

7. **Rehabilitation completion (sign-off)**

Once all the rehabilitation objectives and criteria are met, and the land is stable and functioning as planned, the site can be signed off by the regulator. This means the rehabilitation is officially complete, and the land can be used for its intended final purpose.