

CAPABILITY STATEMENT

SUBJECT

Habitat Rehabilitation and Monitoring

MARKETS

Feasibility and Mine Planning | Mine Operations | Mine and Quarry Closure
Rehabilitation, Monitoring and Research

ISO

9001:2015 | 14001:2015 | 45001:2018





Habitat Rehabilitation and Monitoring

Habitat rehabilitation and monitoring represent a multifaceted approach towards mitigating the environmental impacts of mining. These initiatives are driven by recognition of the significant disruptions that mining can cause to natural ecosystems and the importance of restoring and sustaining habitats for the long-term well-being of biodiversity and ecosystem services.

One key aspect of habitat rehabilitation is revegetation which involves restoring vegetation cover on land previously disturbed by mining. This process not only helps in stabilising soil and preventing erosion, but also provides habitat for plants and animals which contributes to the overall restoration of ecological balance. Additionally, techniques such as soil stabilisation and water management play crucial roles in ensuring resilience and sustainability of rehabilitated habitats.

Monitoring is equally important because it allows for continuous assessment of rehabilitation effectiveness. Through monitoring, mining companies can track the progress of habitat recovery, assess biodiversity trends and identify potential challenges or issues that may arise post-rehabilitation. This proactive approach allows interventions and adjustments to management practices, ultimately enhancing the success and long-term sustainability of rehabilitated habitats.

Robust habitat rehabilitation and monitoring programs not only benefit the environment, but also contribute to social license to operate for mining companies. By demonstrating a commitment to environmental stewardship and biodiversity conservation, mine operators can build trust with local communities, regulatory authorities and other stakeholders while fostering positive relationships and promoting sustainable development.



Key considerations

- 1. Preparation and planning:** Before initiating habitat rehabilitation, preparation and planning are essential. This includes baseline assessments to understand the pre-disturbance habitat conditions, identifying key species and ecosystem services, and setting clear goals and objectives for rehabilitation.
- 2. Site-specific approach:** Each mine is unique in terms of its ecological characteristics, disturbance levels and restoration potential. Therefore, adopting a site-specific approach is crucial. Tailoring rehabilitation strategies to suit site-specific needs enhances the effectiveness and success of restoration efforts.
- 3. Stakeholder engagement:** A vital consideration is engaging with stakeholders including local communities, environmental groups, regulatory agencies and Indigenous communities. Collaboration and consultation can lead to gaining valuable insights, addressing concerns and fostering support for rehabilitation initiatives.
- 4. Monitoring and adaptive management:** Continuous monitoring is indispensable for assessing the progress of habitat rehabilitation, evaluating biodiversity recovery and identifying challenges or gaps in restoration outcomes. Adopting an adaptive management approach allows for timely adjustments and improvements based on monitoring data and feedback.
- 5. Long-term commitment:** Habitat rehabilitation is a long-term commitment and investment. It's essential to recognise that ecological restoration is a gradual process, and that the benefits may take time to fully manifest. Therefore, maintaining long-term funding, resources and expertise is critical for the success and sustainability of rehabilitation programs.

Approach

Habitat restoration involves a comprehensive and systematic process that prioritises ecological integrity, sustainability and stakeholder engagement. Key elements include a baseline assessment to understand pre-disturbance conditions such as biodiversity, soil quality, hydrology, vegetation cover and ecosystem services. This assessment provides insight into ecosystem health and function, guiding the development of a restoration plan that sets specific goals and objectives.

An essential aspect of the restoration process is the adoption of adaptive management principles. Adaptive management involves a flexible and iterative approach in which restoration activities are continuously monitored and evaluated. This allows for real-time adjustments and refinements based on monitoring data and stakeholder feedback. For example, if certain native plant species are not thriving as expected, the restoration plan can be adjusted to introduce alternative species that may be better suited to conditions.

In addition to adaptive management, effective soil and water conservation measures are integral to successful restoration. These measures include erosion control techniques and revegetation with native species. Water management practices such as rainwater harvesting and the creation of buffer zones help enhance water availability and quality for restored ecosystems.



Outcomes

Engaging SGME will enable several positive outcomes based on our holistic approach. Through a baseline assessment, you will gain a thorough understanding of the area's ecological status including biodiversity, soil quality and hydrology. From this, social and economic benefits can be determined to guide informed decision-making. We will enable you to select sites in areas with high rehabilitation potential, ensuring restoration efforts are effective in providing protection for wildlife habitats and in aiding biodiversity restoration. Native species selection will enhance biodiversity and ecosystem resilience and will, in turn, foster healthier ecosystems. We will assist you in determining clear restoration goals and objectives that align efforts with specific ecological needs, creating desired post-restoration habitats. Our monitoring protocols will assess progress via indicators such as vegetation cover and species diversity. Adaptive management plans will be implemented, and allowance for adjustments to strategies will be made based on data and changing conditions, creating a restored landscape that is safe for fauna, flora and humans.

Working with SGME

Engaging SGME as a collaborative partner delivers numerous benefits:

- **Improved return on investment (ROI):** Our expertise maximises ROI to satisfy investor expectations.
- **Reduced mine closure risks and disruptions:** Our strategies minimise complex closure risks to ensure a smooth future land use transition.
- **Addressing environmental, social, and governance (ESG) risks:** We focus on ESG criteria to mitigate environmental impacts and meet regulatory standards.
- **Enhanced strategic insight:** Collaboration boosts your performance through strategic planning.
- **Industry collaboration:** We foster partnerships with mining experts, staying abreast of technology and regulatory advancements.
- **Future risk vigilance:** Our proactive approach anticipates future risks to aid informed decision-making.
- **Innovative solutions for safe execution:** Our expertise delivers innovative solutions to ensure safe execution.

Our proactive and ethical approach ensures adaptability, sustainability and responsible development to safeguard the mining industry and create enduring value.

CONTACT

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