
Upper Hunter Mining Dialogue

Final and Temporary Rehabilitation Principles and Commitments

MUSWELLBROOK COAL COMPANY



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Mining Dialogue**

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Introduction

The nine coal producers of the Upper Hunter, through the Upper Hunter Mining Dialogue have agreed to this set of principles and commitments with regard to final and temporary rehabilitation. The Principles and Commitments have been developed with advice and guidance from the UHMD Joint Working Group – Land Management which is a stakeholder and industry group.

The Upper Hunter Mining Dialogue has two five year goals with regard to land management:

- *Goal 1 To decrease the time that disturbed areas are left without final or temporary cover, recognising that different mining operations are at different points in rehabilitation.*
- *Goal 2 To achieve a consistent level of best practice, quality, integrated rehabilitation – both within the industry and with future land uses - across the Upper Hunter and to be a responsible steward of the land.*

The primary focus of the Rehabilitation Principles and Commitments is to contribute to Goal 1. A number of other projects are underway to progress Goal 1. The industry participants in the UHMD acknowledge the importance of clear goals for rehabilitation developed through consultation with community and regulators, continuing to improve rehabilitation techniques and sharing innovative and successful rehabilitation techniques within the industry. Projects under Goal 2 focus on continuous improvement of rehabilitation practices.

Principles and Commitments

The Upper Hunter coal producers will publicly report against the Principles and Commitments on an annual basis. The reporting will be aggregated by the NSW Minerals Council and shared with the community. Table 1 sets out the six principles and provides a description of how each will be reported against.

Table 1 – Principles and Commitments

Principle	Reporting
Principle 1 – Include rehabilitation planning in mine planning	<i>Mine planning incorporates the rehabilitation goals set in the MOP commitment.</i>
Planning for rehabilitation should be integrated into the mine planning process and should include allocating adequate and dedicated resources to achieve the planned rehabilitation outcomes.	<i>As dumps receive final shaping, rehabilitation activities commence and planting operations are optimally timed for maximum seedling development and growth (spring or autumn).</i>
Principle 2 – Undertake progressive rehabilitation	<i>Rehabilitation activities follow closely</i>

Principle	Reporting
<p>Companies should undertake rehabilitation progressively, with the objective of ensuring that rehabilitation is as close as possible to active mining.</p>	<p>behind final shaping of waste emplacements. Seasonal timing for optimal tree seed emergence/development doesn't always align with the completion of final shaping. In this instance, a cover crop will be planted to reduce dust potential and assist in adding organic matter to the soil profile in readiness for tree seeding within the following 6-12 months.</p>
<p>Principle 3 – Minimise time that disturbed areas are left without vegetation</p>	<p>See comment in Principle 2</p>
<p>Companies should actively seek to minimise the time that land is left without cover during mining. This should include:</p> <ul style="list-style-type: none"> ▪ Taking steps to ensure that rehabilitation is commenced within 12 months of land becoming available for rehabilitation ▪ Utilising methods of temporary rehabilitation^[1], such as aerial seeding of over burden and other disturbed areas where permanent rehabilitation has not commenced. 	
<p>Principle 4 – Prioritise areas of rehabilitation and temporary cover to reduce impacts</p>	<p>Narrative – how has this been implemented in the last twelve months</p>
<p>Companies should prioritise rehabilitation and temporary cover in those areas where leaving land exposed will have the most impact. The following areas should be considered to have priority:</p> <ul style="list-style-type: none"> ▪ Areas that have the greatest impact on visual amenity, such as areas that face townships, residences, or the highway ▪ Areas that have the potential to generate dust leaving the site ▪ Areas that are important for biodiversity, such as rehabilitation adjoining or providing connectivity to remnant vegetation. 	<p>See comment in Principle 2</p>
<p>Principle 5 – Meet target for rehabilitation progress identified in the Mining Operations Plan</p>	<p>The rehabilitation commitments indicated in the approved MOP, specify a total rehabilitated target of 321.9ha would be reached by 31 December 2014. At the end of 2014 the rehabilitated area on site totalled 347.7ha.</p>
<p>Each company should meet the annual target for rehabilitation quantity (area) set in the Mining Operations Plans for each of its mines.</p>	

At the end of 2015 Muswellbrook Coal were slightly behind in bulk shaping targets but ahead of seeding targets.

Principle	Reporting
<p>Principle 6 – Set quality targets for rehabilitation in the Mining Operations Plan and implement a monitoring program to measure performance</p> <p><i>Each company should include quality targets for the various types of rehabilitation in the Mining Operations Plan for each of its mines. A monitoring program to measure the performance of rehabilitation areas against the quality targets should be implemented at each of its mines.</i></p>	<p><i>Rehabilitation monitoring to demonstrate key indicators/criteria required for mine closure, which will be detailed in the final MOP, commenced in November 2009. Reference and rehabilitation monitoring sites have been established and will continue to be added as new rehabilitation areas are completed.</i></p>