

Upper Hunter Mining Dialogue

Final and Temporary Rehabilitation Principles and Commitments

2018 Results and Commentary

**REPORT BY BENGALLA MINING COMPANY
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Final and Temporary Rehabilitation Principles and Commitments

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 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 - Provide transparent and reliable information through the Rehabilitation Reporting Principles, and*
- *Goal 3 - 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 3 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. Contextual information is also sought from industry regarding variations in their annual reporting, as well as an opportunity to provide commentary on their future rehabilitation targets for the years ahead.

Table 1 – Principles and Commitments

Principle	Reporting
Principle 1 – Include rehabilitation planning in mine planning	<i>Narrative</i> – how has this been done in the last period
<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>	Rehabilitation at Bengalla is undertaken in accordance with SSD-5170 (as modified) and the Mining Operations Plan (MOP).
Principle 2 – Undertake progressive rehabilitation	<i>Narrative</i> – how has this been implemented in the last twelve months
<i>Companies should undertake rehabilitation progressively, with the objective of ensuring that rehabilitation is as close as possible to active mining.</i>	Emplacement areas are generally progressively rehabilitated. The majority of the north, eastern and southern faces have been rehabilitated, with active mining on the western face of the emplacement area. The MOP anticipated 13 ha of rehabilitation in 2018 on the southern face of the OEA. It was identified that rehabilitation completed in 2018, and part of the existing 2017 rehabilitation, would require reshaping to incorporate micro-relief following approval of a revised MOP. At the end of the 2018 reporting period 4 ha on the southern face of the OEA was rehabilitated.
Principle 3 – Minimise time that disturbed areas are left without vegetation	<i>Narrative</i> – how has this been implemented in the last twelve months
<i>Companies should actively seek to minimise the time that land is left without cover during mining. This should include:</i> <ul style="list-style-type: none"> <i>Taking steps to ensure that rehabilitation is commenced within 12 months of land becoming available for rehabilitation</i> <i>Utilising methods of temporary rehabilitation¹, such as aerial seeding of over burden and other disturbed areas where permanent rehabilitation has not commenced.</i> 	Due to drought conditions an interim cover crop of millet was spread on the rehabilitated 4 ha area to stabilise the landform and minimise dust emissions. When the conditions are suitable the woody species mix will be sown.
Principle 4 – Prioritise areas of rehabilitation and temporary cover to reduce impacts	<i>Narrative</i> – how has this been implemented in the last twelve months
<i>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:</i> <ul style="list-style-type: none"> <i>Areas that have the greatest impact on visual</i> 	Areas that are shaped and rehabilitated each year are prioritised.

¹ Temporary rehabilitation describes reshaping, revegetation and other rehabilitation techniques that are used for purposes other than final rehabilitation. This includes such initiatives as seeding overburden emplacement areas to reduce erosion, which are only temporary.

Principle	Reporting
<p><i>amenity, such as areas that face townships, residences, or the highway</i></p> <ul style="list-style-type: none"> ▪ <i>Areas that have the potential to generate dust leaving the site</i> ▪ <i>Areas that are important for biodiversity, such as rehabilitation adjoining or providing connectivity to remnant vegetation.</i> 	
Principle 5 – Meet target for rehabilitation progress identified in the Mining Operations Plan	<p><i>Quantitative</i> – report MOP target and actual rehabilitation</p> <p><i>Narrative</i> – explanation of performance</p>
<p><i>Each company should meet the annual target for rehabilitation quantity (area) set in the Mining Operations Plans for each of its mines.</i></p>	<p>The MOP proposed to undertake 13 ha of rehabilitation in 2018, focussed on the southern face of the OEA. However, it was identified that rehabilitation completed in 2018, and part of the existing 2017 rehabilitation, would need to be reshaped to incorporate micro-relief following approval of a MOP amendment.</p>
Principle 6 – Set quality targets for rehabilitation in the Mining Operations Plan and implement a monitoring program to measure performance	<p><i>Narrative</i> – summary of quality targets for the various rehabilitation types; and summary of monitoring program scope and status.</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>The current MOP includes performance indicators and completion criteria for each secondary domain. This information is presented in Table 17, Table 18, Table 19, Table 20, Table 21, and Table 22.</p> <p>Rehabilitation monitoring at Bengalla is undertaken annually through implementation of the following:</p> <ul style="list-style-type: none"> • A transect-based monitoring program (the monitoring program); and • A rehabilitation audit (the audit), consisting of a walk-through assessment of all rehabilitated lands. <p>The 2018 monitoring program found that the rehabilitation sites are generally developing in accordance with the relevant MOP criteria, however it is likely that continued active management of rehabilitation will be required to successfully achieve rehabilitation objectives over the longer term.</p>

Contextual information

<p><i>This section provides an opportunity for each company to provide some commentary or contextual information regarding their reported results. Such information could include advice on:</i></p> <ul style="list-style-type: none"> - <i>Any material changes to the site (i.e. expansions, acquisitions, or divested assets); or</i> - <i>Why any figures may have changed since the last reporting period?</i> 	
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Future rehabilitation priorities

<p><i>This section provides an opportunity for each company to provide details on rehabilitation activities at their site/s for the upcoming year.</i></p>	<p>Year to date Bengalla have completed 0 ha of shaping and reshaping. The target for 2019 is 7 ha of new shaping and 11 ha for re-shaping, the completed rehabilitation target for 2019 is 0 ha.</p>
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