

REHABILITATION

Industry Principles & Commitments



Upper Hunter
Mining Dialogue

2019 Results

Since 2012, the Upper Hunter Mining Dialogue has been collecting annual rehabilitation and disturbance data and contextual information from mining operations across the Upper Hunter. All Dialogue member companies have agreed to a set of common principles and commitments (listed on the following page), which were developed by the Joint Environment Working Group to drive improvements in the speed of rehabilitation and to provide aggregate data to the community about total land disturbed and the amount of progressive rehabilitation being undertaken.

The results for 2019 calendar year have been included in an updated table below and show an improvement on the 2018 results in a number of areas, including a large reduction in new disturbance and a higher annual proportion of rehabilitation compared to disturbance than in any previous year. While there is still more progress to be achieved, the results for 2019 are encouraging given the continued drought and low rainfall experienced across the Upper Hunter over recent years do not appear to have significantly impacted the ability of companies to continue meeting their rehabilitation objectives.

The variance in annual results is reflective of the differing stages of operations throughout the mining life cycle. Periods of high disturbance may be due to the establishment of new operations or expansion projects, while increasing annual rehabilitation may be indicative of operations moving closer to the closure phase. Explanatory notes on the annual results are included on the following page to provide additional context.

Rehabilitation	2012	2013	2014	2015	2016	2017 [8]	2018	2019
A: Total land area disturbed and not yet rehabilitated at the beginning of the reporting period (hectares) [4]	17,830	18,098	18,479	20,171	21,180	21,472	21,816	22,276
B: Total amount of land newly disturbed within the reporting period (hectares)	1,163	1,148	1,057	1,424 ^[6]	1,270	1,008	1,666	979
C: Total amount of land newly rehabilitated within the reporting period (hectares) [1]	895	962	801	856	907	763	1,071	869
D: Total land area disturbed and not yet rehabilitated at the end of the reporting period (D=A+B-C) (hectares)	18,098	18,283	18,736	21,008	21,304	21,770	22,411	22,518 ^[10]
E: Total area of rehabilitation at all operations at the end of the reporting period (hectares) [2]	8,791	9,145	10,023	10,783	11,653	12,315	12,714	13,470
F: Annual proportion of rehabilitation to disturbance (C:B) (%) [3]	77.0%	83.8%	75.8%	60.1%	71.4%	75.7% ^[7]	64.3%	88.7%
G: Overall proportion of disturbed land rehabilitated	32.7%	33.3%	34.9%	33.9%	35.4%	36.1%	36.2%	37.4%
Other Managed Land [5]	2012	2013	2014	2015	2016	2017	2018^[9]	2019
Estimate of total land held as biodiversity offsets (hectares)	10,973	13,164	22,607	22,773	25,466	41,768	41,139	41,803
Estimate of the total area of land managed for agricultural use (e.g. grazing, cropping, viticulture) (hectares)	57,533	60,174	44,252	44,632	40,146	59,320	59,212	59,209

To find out more, visit miningdialogue.com.au

Industry rehabilitation data for 2019 was kindly provided for this project by Glencore, Yancoal, The Bloomfield Group, BHP, Muswellbrook Coal Company, Peabody Energy, Mount Pleasant Operation, Bengalla Mining Company and Malabar Coal. Contextual information has been sourced from the NSW Department of Primary Industries, Australian Bureau of Statistics, Singleton City Council and Muswellbrook Shire Council.

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Notes	
[1]	Rehabilitation is defined by the Mining Act 1992 as the treatment or management of disturbed land or water for the purpose of establishing a safe and stable environment
[2]	Row E2013 may not equal Row C2013 + Row E2012 as areas that have been previously rehabilitated, then re-disturbed are excluded from the Total area of rehabilitation of all operations at the end of the reporting period.
[3]	The annual proportion of rehabilitation to disturbance indicates how many hectares of rehabilitation are undertaken for each hectare of land disturbed during the year. A figure of 100% or above indicates the area of rehabilitation is the same or higher compared to disturbance in that year.
[4]	Row A(Year) does not necessarily equal Row D (Year -1) because some companies have reconciled their figures and corrected them over time.
[5]	There have been substantial changes in the amount of 'Other Land Managed' between 2013 and 2014 because: (i) significant increases in additional offset areas have been established, and (ii) because some of the land previously identified as being used for Agriculture is now being used for mining purposes or biodiversity offsets.
[6]	The increase in land newly disturbed in 2015 is predominantly due to the establishment of the Bulga Optimisation project.
[7]	Mount Pleasant Operations (MPO) commenced reporting data into this project in 2017. Typically, during the initial stages of a mining operation, a larger amount of disturbance is conducted to establish the mine and associated infrastructure. As the mine develops, progressive rehabilitation is conducted and much of the initial disturbance is rehabilitated. While the proportion of rehabilitation to disturbance was just under 76% in 2017, if the MPO data was excluded this proportion would have been 103%, demonstrating that the industry conducted more rehabilitation than disturbance in 2017.
[8]	Total figures from the 2017 results have been adjusted following the discovery of a reporting error from MPO, which had incorrectly reported cumulative disturbance as newly disturbed land, resulting in an over-reporting of the actual amount of disturbance across operations.
[9]	The Dialogue introduced a new category in 2018, reporting on the total amount of buffer land owned by Upper Hunter mining companies, along with a breakdown of various categories (e.g. agricultural land, vacant land, residential). The majority of buffer land was categorised as agricultural land, which has a significant overlap with the 'Total area of land managed for agricultural use' which the Dialogue has reported on since 2012. As this information was included in response to specific stakeholder feedback at the Dialogue's 2018 Forum event and has remain virtually unchanged from the previously reported data in 2018, Dialogue will not continue to report on this to avoid unnecessary confusion.
[10]	The reported D and E figures for 2019 do not align with previously reported data. This is due to Yancoal reporting that 170 ha of previously reported rehabilitation being reclassified as a result of an Independent Rehabilitation Review conducted in 2019. Approximately 40 ha of this amount was reported as rehab disturbance in 2019, however a remaining discrepancy of 130 ha was removed from the rehabilitation reporting due to the fact that these were seeded to cover crops, but not the final seed mixes. These areas will be seeded to the final seed mixes in 2020 and 2021 and will feed back into the rehabilitation reporting figures in the coming years.

Upper Hunter Mining Dialogue - Temporary and Final Rehabilitation Principles and Commitments

1. Include rehabilitation planning in mine planning - 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.
2. Undertake progressive rehabilitation - Companies should undertake rehabilitation progressively, with the objective of ensuring that rehabilitation is as close as possible to active mining.
3. Minimise time that disturbed areas are left without vegetation - Companies should actively seek to minimise the time that land is left without cover during mining. This should include:
 - Taking steps to ensure that rehabilitation is commenced within 12 months of land becoming available for rehabilitation.
 - Utilising methods of temporary rehabilitation*, such as aerial seeding of overburden and other disturbed areas where permanent rehabilitation has not commenced.
4. Prioritise areas of rehabilitation and temporary cover to reduce impacts - 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:
 - 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.
5. Meet target for rehabilitation progress identified in the Mining Operations Plan - Each company should meet the annual target for rehabilitation quantity (area) set in the Mining Operations Plans for each of its mines.
6. Set quality targets for rehabilitation in the Mining Operations Plan and implement a monitoring program to measure performance - 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.

* 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.

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