

UPPER HUNTER REHABILITATION 2023



Upper Hunter Mining Dialogue

Rehabilitation Principles & Commitments - Analysis and Trends

Since 2012, the Upper Hunter Mining Dialogue has been collecting and reporting on annual rehabilitation data from all Upper Hunter mining operations. This information is provided annually to the community to improve the transparency and awareness of the aggregated amount of progressive rehabilitation and disturbance across the region.

Mining operators in the Upper Hunter region have agreed to a set of common rehabilitation principles and commitments to drive improvements to rehabilitation. These principles aim to decrease the periods of time that disturbed areas are left without temporary or final cover to minimise the impacts on the landscape and air quality.

In 2023, there was a change in how rehabilitation data was sourced. Previously, this has been obtained directly from industry, however in 2023, the rehabilitation data was obtained from the Rehabilitation Annual Reports which are provided by industry to the Resources Regulator. This change in data source has delayed the publication of the 2023 results.

In 2023, a further 962 hectares of land was newly rehabilitated, taking the total amount of land under rehabilitation to 14,367 hectares, which equates to just over 35 percent of all land disturbed by mining in the Upper Hunter.

There was an increase in 2023 for newly disturbed land, 1,599 hectares, which is above the 5 year average. This increase in disturbance reflects the continued construction of the Maxwell Underground Mine and further development at Mount Pleasant.

The annual rehabilitation to disturbance ratio for 2023 was 0.66, meaning that for every hectare of land disturbed, 0.66 hectares of rehabilitation was undertaken.

At the end of the reporting period, a total of 26,519 hectares of disturbed land is awaiting rehabilitation.

For more information:

miningdialogue.com.au

2023 Rehabilitation Snapshot

New rehabilitation

962 ha

Last Year (2022)

529 ha

Five-year average

782 ha

New disturbance

1,599 ha

Last Year (2022)

676 ha

Five-year average

1,030 ha

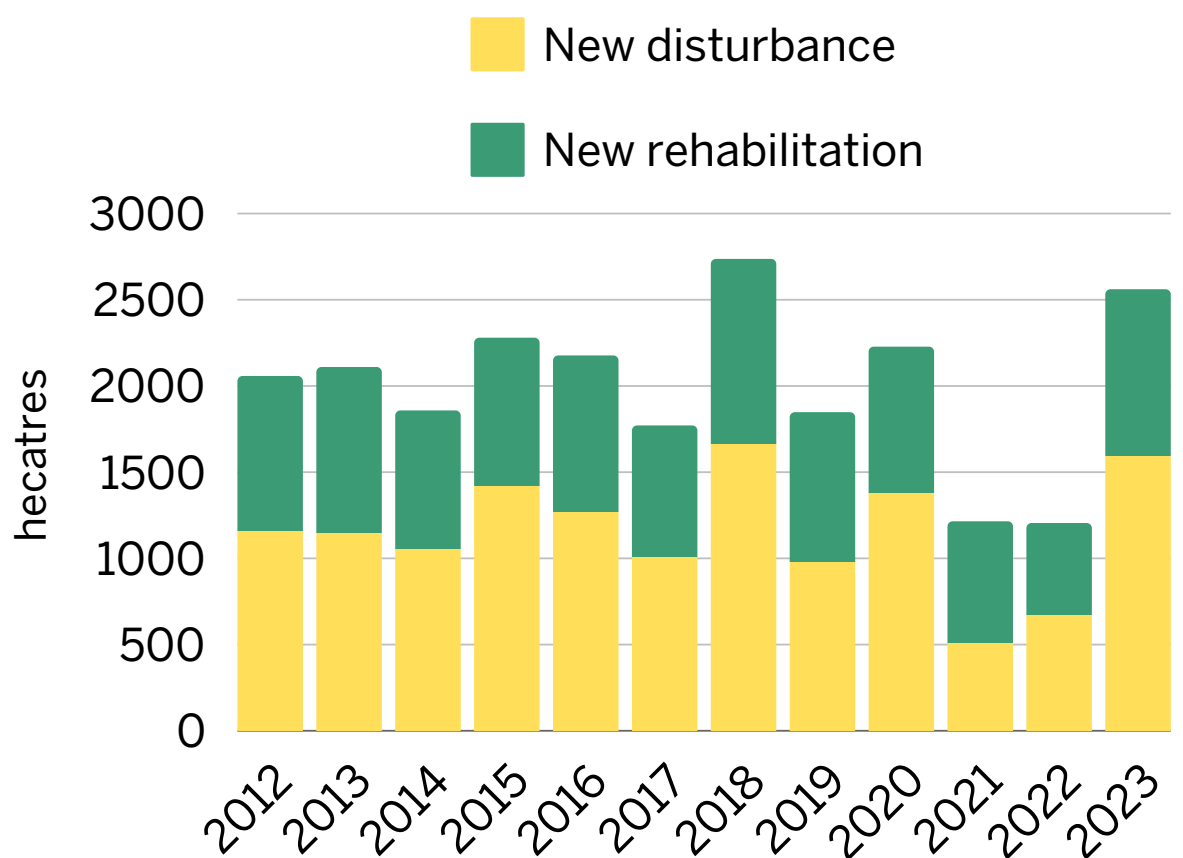


Figure 1: Comparison of annual new rehabilitation and disturbance

Total disturbed land under rehabilitation*

14,367 ha

Total disturbed land awaiting rehabilitation*

26,519 ha

*at the end of the reporting period



Over 35% of land disturbed by mining in the Upper Hunter is under active rehabilitation.

UPPER HUNTER REHABILITATION 2023



Upper Hunter
Mining Dialogue

Rehabilitation Principles & Commitments - Analysis and Trends

Figure 2: Comparison of Annual New Disturbance to New Rehabilitation, with trendlines (2012 to 2023)

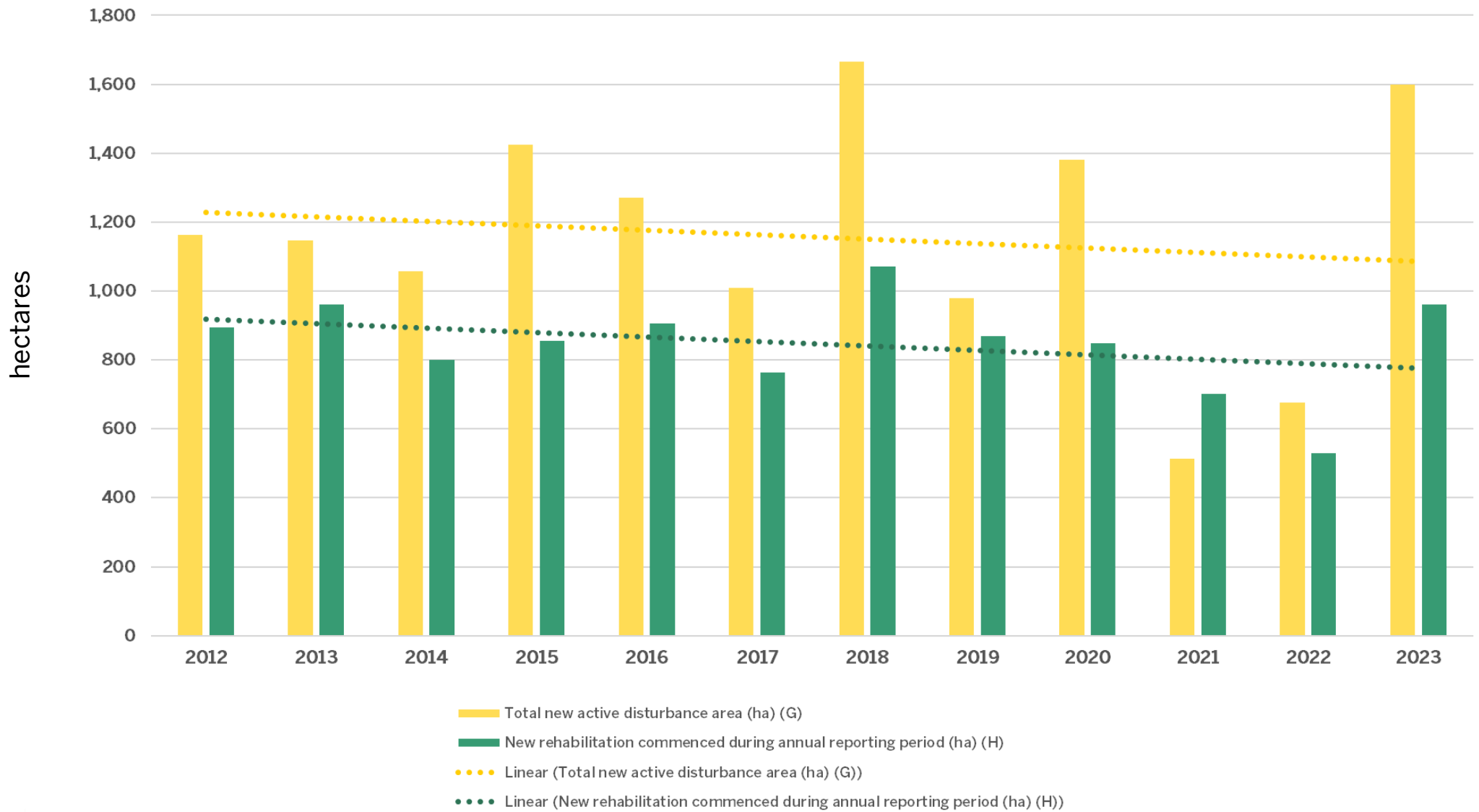
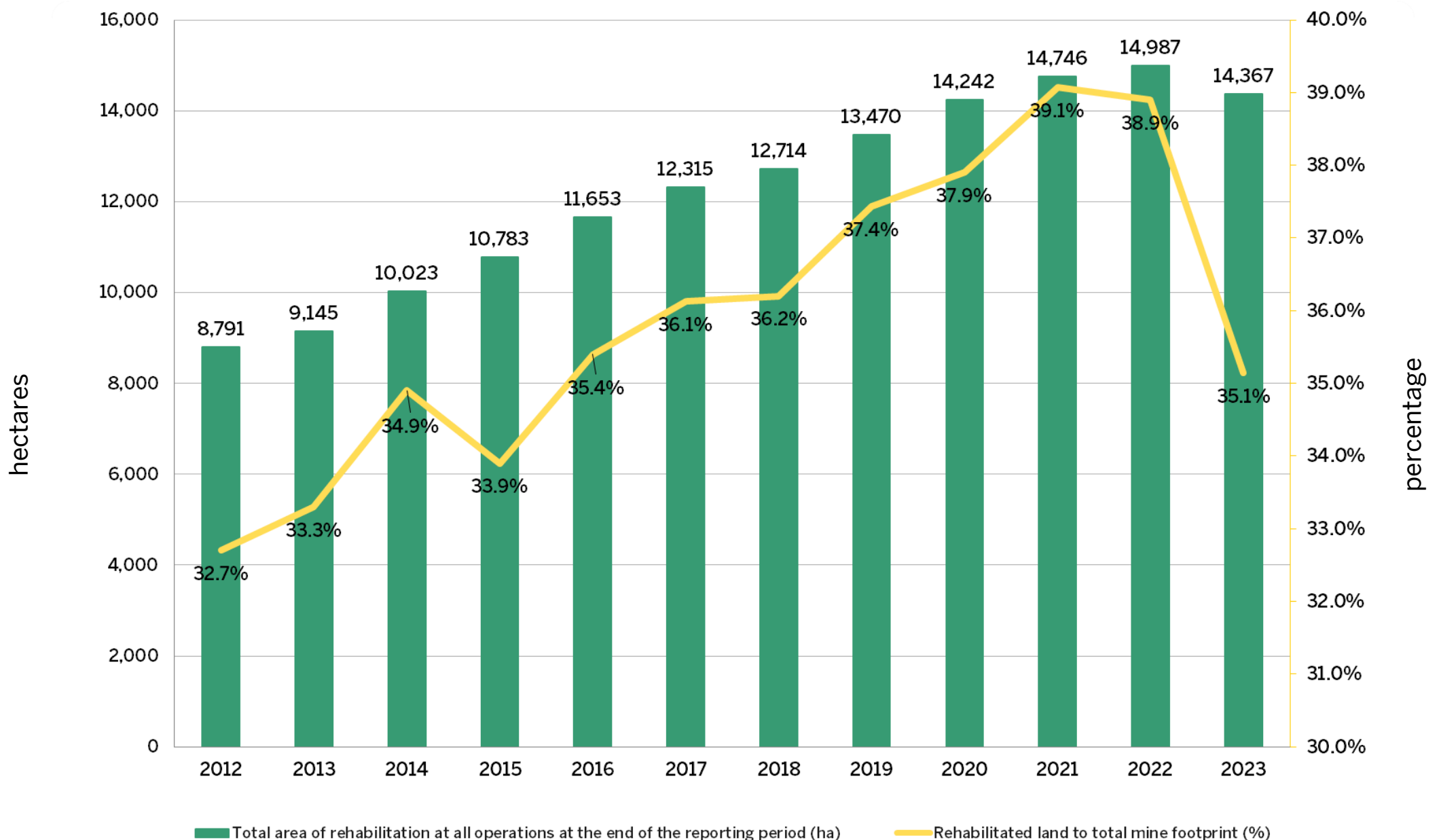


Figure 3: Total area of land under rehabilitation and Percentage of disturbed land under rehabilitation (2012 to 2023)



UPPER HUNTER REHABILITATION 2023



Upper Hunter
Mining Dialogue

Rehabilitation Principles & Commitments - Progress Table

Rehabilitation Progress Table	Opening Figure	Five-Year Average	Last Five Years				
Rehabilitation [1]	2012	2019-2023	2019 [8]	2020 [9]	2021 [10]	2022 [11]	2023 [12]
A: Disturbed land awaiting rehabilitation - Start amount (ha) [2]	17,830	23,511	22,276	22,726	23,245	23,245	25,882
B: Total land newly disturbed within the reporting period (ha)	1,163	1,030	979	1,380	514	676	1,599
C: Total land newly rehabilitated within the reporting period (ha)	782	804	869	848	701	529	962
D: Disturbed land awaiting rehabilitation - End amount (ha) (D=A+B-C)	18,098	23,786	22,518	23,259	23,058	23,572	26,519
E: Total land under rehabilitation at all operations (ha) [3]	8,791	14,362	13,470	14,242	14,746	14,987	14,367
F: Annual ratio of rehabilitation to disturbance (C:B) [4]	0.77	0.86	0.89	0.61	1.36	0.78	0.66
G: Overall proportion of disturbed land rehabilitated	32.7%	37.7%	37.4%	37.9%	39.0%	38.9%	35.1%
Other Managed Land [5]	2012	2019-2023	2019	2020	2021	2022	2023
Estimate of total biodiversity offset land (ha)	10,973	43,342	41,803	43,689	41,034	44,109	46,073
Estimate of total managed agricultural land (ha)	N/A	55,243	59,209	59,160	52,788	51,404	53,655
Estimate of total buffer land (ha) [6]	N/A	45,063	47,063	47,179	48,175	44,976	43,550

Note: Please see over the page for Contextual Notes that provide further information to the table and figures presented.

Thanks to the NSW Resources Regulator and all Upper Hunter Mining Dialogue industry members (Bengalla Mining Company, BHP, The Bloomfield Group, Glencore, MACH Energy Mount Pleasant Operation, Malabar Resources, Muswellbrook Coal Company, Peabody Energy, and Yancoal) for supplying rehabilitation and disturbance data for this project.

For more information:

miningdialogue.com.au

UPPER HUNTER REHABILITATION 2023



Upper Hunter
Mining Dialogue

Rehabilitation Principles & Commitments - Notes

Contextual Information to the Rehabilitation Progress Table

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 'A' (Year) may not necessarily equal Row 'D' (Year -1) because several companies reconcile their previously reported figures and have provided corrections over time which are incorporated into the subsequent year's reporting.
3	Row 'E' figures for the current reporting year are generally calculated by adding the new rehabilitation 'C' amount from the current reporting year to the total land under rehabilitation 'E' amount from the previous reporting year. This is not always a straightforward calculation, as several companies may report re-disturbance to areas previously rehabilitated (rather than creating new disturbance). Previously rehabilitated land is excluded from the total area under rehabilitation of all operations at the end of the reporting period.
4	The annual rehabilitation to disturbance ratio indicates how many hectares of rehabilitation are undertaken for each hectare of land disturbed during the year. A ratio of 1 would indicate that the total area of new rehabilitation and new disturbance in that year are the same.
5	The Dialogue collects and reports on a number of 'other managed land' including biodiversity offsets, and total managed agricultural land. Substantial changes in the amount of 'Other Land Managed' were identified 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 Dialogue introduced a new reporting category as part of the 2018 results, where the total amount of buffer land owned by the mining companies operating in the Upper Hunter is now being reported. The total amount is also broken down into various categories (e.g. agricultural, residential, commercial, recreational, or vacant land not suitable for use). There will be a doubling up between some managed land and the buffer land results in most years due to some managed agricultural land being included in the buffer land figure.
7	The reporting table has been condensed and does not show each year from the projects inception in 2012. A number of previous contextual notes have been removed as they relate to data no longer shown in the table, however are important to note in other graphs produced by the Dialogue in association with this project. In 2015, there was an increase in newly disturbed land, which was predominantly due to the establishment of the Bulga Optimisation project. In 2017, Mount Pleasant Operation commenced operation, and a larger amount of new disturbance was recorded that year due to this project's initial stages. As the mine develops, progressive rehabilitation is conducted and much of the initial disturbance is rehabilitated.
8	2019 result notes: The reported D and E figures for 2019 do not align with previously reported data due to a site reporting that 170 ha of previously reported rehabilitation is 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 2020/21 and will feed back into the rehabilitation reporting figures in the coming years.
9	2020 result notes: As per note [2], differences in the opening and closing figures between years were recorded due to sites amending their figures between reporting years following internal accuracy reviews. As per note [3], the 2020 Row 'E' figure is impacted by the disturbance of previously rehabilitated areas across two operations for dump space, resulting in a lower aggregate rehabilitation total in 2020. Further, as the United Wambo Joint Venture (UWJV) commenced on 1 December 2020, data for the site is now reported individually by Glencore and Peabody for respective sections of responsibility as per new arrangements. Given this transition, there may be minor impacts on the total results reported (e.g. opening 'A' and previous closing 'D' figures, which should generally align).
10	2021 result notes: The total figure for biodiversity offset land decreased slightly in 2021, due to a revision and correction of this data from Mount Pleasant Operation following an internal review for accuracy. Further, the figures for managed agricultural land and buffer land both decreased by a significant amount in the 2021 reporting year with Glencore advising they no longer include offset lands in this figure, and BHP advising of an increase in active mining area and the construction of the new Edderton Rd.
11	2022 result notes: As per note [2], differences in the opening 2022 'A' and closing 2021 'D' figures between years were recorded due to sites amending their figures between reporting years following internal accuracy reviews.
12	2023 result notes: Rehabilitation data for 2023 was sourced from the Annual Rehabilitation Report and Forward Program which are submitted by mining companies directly to the NSW Resources Regulator annually. This is a change in the data source compared to previous years where data was obtained directly from industry. Comparisons of the data previously reported by the Dialogue and data provided to the NSW Resources Regulator has been undertaken and showed minimal variance. The increase in total land newly disturbed is attributed to the continued construction of the Maxwell Underground Mine and construction and further development of open cut mining operations at Mount Pleasant. The data source for the Other Managed Land section remains the same and was sourced directly from industry. The delay in preparing the 2023 results was due to the late provision of information from the Regulator as well as the late request by the Joint Advisory Steering Committee to source Other Managed Land information directly from industry.