

THE DIALOGUE

SUMMER 2023/24



UPPER HUNTER MINING DIALOGUE NEWSLETTER

PASTURE RESTORATION IN THE SPOTLIGHT

The Upper Hunter Mining Dialogue's recent Pasture Restoration Field day brought agronomists, government, community and industry stakeholders together for a day of sharing knowledge and seeing first-hand, mine rehabilitation to pasture.

THE WORD FROM THE CHAIR

Sarah Withell
UHMD Chair



After nearly five years as Chair of the Dialogue, this is my last 'Word from the Chair' as I hand over to the incoming Chair, John Watson, Director Environment and Community, Glencore Coal Assets Australia. John has been a member of the Dialogue since its inception in 2011.

Looking back over 2023, it has been a significant and challenging year for the Singleton community. I am sure that we have all been touched in some way by the tragic bus crash in June, and the Dialogue acknowledges the victims, the families and many friends who have been so deeply impacted. It has been humbling to witness the strength and resilience of the Singleton community, who continue to care for and support each other.

The Dialogue also acknowledges the passing of Wendy Bowman, a passionate and highly valued past member who helped drive air and water quality monitoring and mining rehabilitation projects. Wendy leaves a lasting positive legacy and will be sadly missed.

The Dialogue continues to address suggestions and ideas from the 2022 Community Forum and a post-event survey. Through discussions at working group and committee meetings, the Dialogue has developed a strategic work plan to respond to relevant issues over the next 12 months and beyond. You can find more details about the key themes emerging from the Forum and the Dialogue's Work Plan on page 3.

As the Dialogue has evolved, the scale of the projects it delivers has also grown. The projects that the Dialogue now actions often have longer lead times to develop and deliver. As a result, the Joint Advisory Steering Committee has supported a change from an annual Forum to holding the Forum every two years.

Holding the forum every two years will enable updates of projects to be more comprehensive, more effectively use participants' time and support the ongoing success of the Forum. The Community Forum will continue to play a vital role in developing the Dialogue's future work program.

The secretariat is implementing alternative avenues to seek stakeholder feedback and communicate the Dialogue's outcomes and progress over the next 12 months.

The Dialogue completed a review of its Stakeholder Engagement and Communications Strategy in 2023. The Review was designed to ensure engagement and communications strategies and activities are aligned to the strategic priorities of the Dialogue, are 'fit for purpose' and can be appropriately resourced.

Opportunities to engage and communicate more effectively with community members and young people have been prioritised. The draft report was considered at Working Group and Steering Committee meetings in September, and work has commenced to address key recommendations and actions.

The Dialogue held a highly successful Pasture Restoration Field Day on October 11. With forty participants in attendance, the day provided a unique opportunity for agronomists, mining industry personnel and other key stakeholders from government, local councils, farmers and community groups to visit areas of mine rehabilitation that have been restored to pastureland. More information about the Field Day is featured on page 4.

It has been a privilege and pleasure to act as Chair and to see the Dialogue develop and deliver a wide range of projects to respond effectively to community issues and concerns. It is particularly pleasing to know that key environmental monitoring and reporting projects are ongoing and have substantially improved the transparency and accessibility of important information for the community and other key stakeholders.

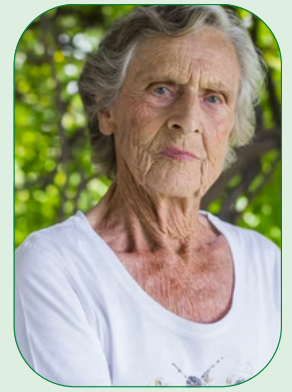
I look forward to watching the excellent work of the Dialogue continue, and I welcome John to the role of Chair.

Sarah Withell
Chair - Upper Hunter Mining Dialogue

VALE WENDY BOWMAN

The Upper Hunter Mining Dialogue acknowledges the recent passing of Wendy Bowman, aged 89. Wendy was a passionate and highly valued past member of the Dialogue, helping to drive projects on air and water quality monitoring and mining rehabilitation.

Wendy leaves a lasting and positive legacy and will be sorely missed by the Upper Hunter community.



COMMUNITY-DRIVEN 2024 WORK PLAN

Twelve months on from the Community Forum in November 2022, the Dialogue is progressing a number of initiatives in response to the priority issues raised at the Forum.

With over 125 attendees, the Forum was the first since our 2019 event in Singleton due to the COVID-19 state-wide lockdowns.

Forum attendees received updates from Muswellbrook Coal and BHP Mt Arthur on two different Upper Hunter mine closure plans. Participants also heard from the Department of Regional NSW on the NSW Government's strategic planning projects and research company, CRNRSTONE, on the insights and opportunities from the Dialogue's 2021 Community Perceptions Survey.

A community panel session featured representatives from various Upper Hunter businesses and community groups discussing their vision for the future of the region.

The key themes and issues to emerge from the Forum are summarised in the table below:

Economic and Social Development

Environment

Skills Shortages	Air Quality
Tourism and Regional Promotion	Renewables and Diesel Emission Reductions
Diversifying Community Engagement	Residual Mine Voids
Housing Availability and Affordability	Water Security and Drought Proofing
Future Land Use and Availability	Innovative Tailings Solutions
Hunter Transition	Other Environmental Concerns



Mike Kelly (Muswellbrook Chamber of Commerce and Industry), Shaelee Welchman (Muswellbrook Shire Council), Dan Repacholi MP (Member for Hunter), Jason Linnane (Singleton Council), and Warrick Jordan (Hunter Jobs Alliance) joined a 2022 Community Forum Panel discussion on key regional issues.

From the review of these themes and issues by the Dialogue secretariat and members, it was clear that although several issues may be outside the scope of the Dialogue, there is a need and support from members for the Dialogue to provide an advocacy role in broader regional issues, given the significant amount of existing work underway by Government, Local Councils, and other key stakeholders.

The Dialogue has prepared a Strategic Work Plan for 2023-2024 reflecting this role and aligned to the key issues identified as priorities by the Dialogue membership.

Alongside economic and social development initiatives, the Dialogue will continue to focus on environmental issues, particularly Upper Hunter air quality monitoring and reporting, and delivering annual rehabilitation progress and water use reports.

PASTURE RESTORATION LEARNINGS SHARED



As part of its ongoing work, the Upper Hunter Mining Dialogue held a Pasture Restoration Field Day on October 11, bringing agronomists, government, community and industry stakeholders together for a day of sharing knowledge and seeing first-hand mine rehabilitation to pasture.

With forty participants in attendance, the field day provided a unique opportunity to visit areas of mine rehabilitation at the Liddell and Rix's Creek operations that have been restored to pasture land. A number of industry representatives shared their approaches, successes and challenges.

“Hunter Valley mining rehabilitation staff can now access the latest trends to establish and maintain first-class pastures on rehab land. Hopefully, the exchange of ideas and experiences will continue to be a feature in the program, sharing ideas and learning from each other’s successes and failures.”

Jeff Esdaile, member of the Dialogue Joint Environment Working Group

Agronomist experts including local agronomist Neil Nelson (Neil Nelson Agvice) and Bob Freebairn (Coonabarabran District Agronomist) attended and shared their valuable knowledge and expertise.

Dr Suzanne Boschma and Dr Sean Murphy from the NSW Department of Primary Industries (Tamworth Agricultural Institute) also attended and were able to see first-hand the successes being achieved in pasture restoration while offering their own experiences in developing sustainable pasture and livestock systems in inland NSW.

Dr. Boschma and Dr. Murphy were impressed by the enthusiasm and efforts of the restoration teams and the solutions they’ve been able to find to establish productive pastures on these challenging sites.

Continued on the next page.





Other organisations participating in the field day included representatives from the Singleton Beef and Land Management Association, NSW Farmers Association, Local Land Services NSW, Singleton Council, Muswellbrook Shire Council, NSW Resources Regulator, and NSW Department of Planning & Environment.

“Despite the dry seasonal conditions, it was evident that the soil health is improving and supporting good pasture growth. It is impressive how with good planning, management and implementation, rehabilitation can produce pastures better than those originally growing in the disturbed areas.”

Local agronomist Neil Nelson (Neil Nelson Agvice)

The idea for a combined briefing/discussion and field day came from Jeff Esdaile, a community member on the Dialogue Joint Environment Working Group, and from a recently published ACARP research project which the Dialogue supported, examining past and present mine rehabilitation to grazing land as a guide to future research.

The Field Day highlighted the mining industry's commitment to providing a positive legacy for Upper Hunter communities post-mining and the Dialogue is confident that learnings from the day will help to support continuous improvement and potentially better results in mine pasture research and restoration in the mining industry.



DIALOGUE WELCOMES NEW CHAIR

The Joint Advisory Steering Committee (JASC) farewelled the Chair, Sarah Withell, at their meeting on November 15 and welcomed the incoming Chair, John Watson. Sarah has been a member of the Joint Advisory Steering Committee since it was established in 2015 and has been the Chair since 2019.

Sarah has played a vital role in setting the strategic direction of the Dialogue and ensuring it remains relevant and agile. A realignment of the Dialogue's organisational structure was undertaken in 2018 to consolidate existing and form new working groups that reflected the Dialogue's evolving priorities. Sarah's oversight in the following years has seen continued improvements to the Dialogue's efficiency and helped to ensure these groups remained effective vehicles for engagement and collaboration.

During Sarah's tenure the Dialogue has developed and implemented a significant project to respond to community concerns around air quality, and continued to deliver annual rehabilitation progress and water use reports, and a successful school tours engagement program. These projects are now ongoing and have contributed significantly to the Dialogue, building a reputation for transparency and as a trusted source of information.

The Dialogue benefited greatly from Sarah's guidance and management throughout the years that were impacted by Covid. The Dialogue was able to remain productive and sustain much of the ongoing work, and stakeholders remained engaged.

Most recently, Sarah oversaw an energised Community Forum in 2022 where the Dialogue facilitated discussions with community members and other key stakeholders on a range of key local and regional issues, including 'Transition', economic diversification and the future prosperity of the Upper Hunter. These discussions have, in large part, shaped the Dialogue's 2024 Strategic Work Plan.

On leaving the role, Sarah said, "It has been a privilege to serve as Chair of the Dialogue. I have valued the opportunity to help to ensure the Dialogue remains relevant and responsive to the needs and issues of the community and I wish John and all the members of the Dialogue the very best."



Pictured (L-R): John Watson, Sarah Withell

The incoming Chair, John Watson (Director Environment and Community Coal Assets Australia – Glencore) is a founding member of the Dialogue, has long-established relationships and brings a wealth of experience and a deep understanding of the role and work of the Dialogue. This will provide a seamless and effective transition.

The Dialogue is also pleased to welcome Elizabeth Watts to the JASC. Elizabeth is a multi-generational Upper Hunter resident and has served in various senior planning, technical and leadership roles in the Upper Hunter. Elizabeth is currently the Acting Vice President of NSW Energy Coal with BHP, overseeing the 'Pathway to 2030' project.

ANALYSING AIR QUALITY

The Dialogue has recently published additional analysis of Upper Hunter air quality monitoring network data.

The latest results incorporate the 2021 and 2022 calendar years and build on the findings of an earlier Dialogue project that sought to review publicly available long-term monitoring data and determine firstly whether air quality in the Upper Hunter had changed since monitoring commenced and, if so, how these changes compared with other monitored regions across NSW.

The initial project was developed following feedback from the 2019 Community Forum, which identified stakeholder concerns about the perceived worsening of air quality impacts in the Upper Hunter.

A scope was developed in consultation with Dialogue Joint Working Group and Steering Committee members, with ERM Australia Pacific (and later Zephyr Environmental) delivering the project, which was also supported by a CSIRO peer review.

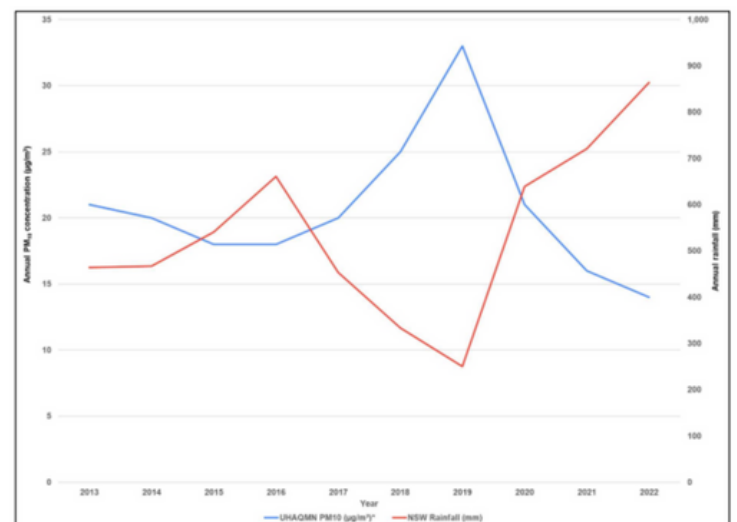
Conditions in 2021 and 2022 were similar to those in 2020, which saw a significant improvement in air quality across all monitored regions in the study, including the Upper Hunter.

The new analysis update also continues to observe a direct correlation between rainfall and particulate matter (PM) concentration levels, noting that drier years typically feature higher PM concentrations and poorer air quality.

In contrast, significant increases in annual rainfall will lead to a corresponding decrease in annual PM10 concentrations.

As the air quality analysis updates will continue on an annual basis moving forward, these will provide regular insight into air quality in the region and assist stakeholders in understanding how air quality in the region is performing compared to other NSW regions.

The 2021/2022 analysis update is now published alongside the earlier reports on the Mining Dialogue website: miningdialogue.com.au/featured/air-quality-analysis



The analysis highlights a correlation between annual average PM10 concentration for the Upper Hunter Air Quality Monitoring Network and NSW annual rainfall'

The 2021/22 analysis update reinforced the findings of the initial report's two objectives, noting that:

1

Air quality has changed in the Upper Hunter since the monitoring program began (with concentrations varying significantly over the period reviewed); however, this change is in a manner that is generally consistent with monitoring data collected at DPIE stations across the remainder of NSW.

2

Upper Hunter air quality changes were broadly consistent with concentrations measured within the Lower Hunter and Central Coast. The difference between the Upper Hunter and the remainder of NSW is small in scale relative to the variability in concentrations across NSW.

STUDENTS CONTINUE TO BENEFIT FROM HUNTER MINE SCHOOL TOURS

The School Mine Tours program completed its busy 2023 schedule in September, with 569 students from 18 schools in the Upper Hunter visiting nine mining operations this year. Since its inception in 2018, more than 3,300 students have undertaken a mine tour.

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During the tours, students and teachers get to see the mining operation first-hand and chat with staff. Students get a good understanding of the mining process and the associated impacts and what mining operations do to minimise these impacts on communities.



Mine staff enjoy the enthusiasm of the students and the opportunity to share some of the things they've learned on their education and career journeys. Students gain insights into the impacts and contribution of mining to our everyday life and the wide range of trades and professions across the industry.



The educational materials provided through the program were developed in conjunction with local teachers and provide fact-based information and support the learning outcomes for the students.

The tours are free and are offered to all Year 5 and Year 9 students from all the schools in the Upper Hunter region. Schools from the Singleton, Muswellbrook and Scone catchments participated again in the 2023 program. The Dialogue completed 21 tours this year, and we thank all the mining operations who supported the program this year.

STAYING CONNECTED TO MUSWELLBROOK AND SINGLETON BUSINESS CHAMBERS

The Dialogue Secretariat has again provided updates to the Singleton Business Breakfast and the Muswellbrook Business Chamber throughout the year.

These updates included an overview of the key milestones and achievements of Dialogue since it was established in 2011 and outlined its current priorities and key projects.



Mike Kelly, Craig Milton and James Barben connecting at Muswellbrook Business Chamber

These projects include ongoing Air, Water and Rehabilitation Monitoring and Reporting projects, a review of the Dialogue's Communications and Stakeholder Engagement Strategy, which is now completed and an overview of a Pasture Restoration Field Day held in October 2023.

The Dialogue places a high priority on the ongoing engagement with the local business chambers and values the opportunity to provide these updates.

Muswellbrook Chamber President Mike Kelly said the Chamber had a 10-year history with the Dialogue, mainly in relation to procurement and economic impacts, as well as helping smaller local businesses successfully engage with the mining industry.

"The Dialogue has been very supportive of the business community, just as the major mining companies have been supportive of Upper Hunter businesses of all sizes, too."

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Mike Kelly, President - Muswellbrook Chamber

NEW 2022 REHABILITATION PROGRESS RESULTS PUBLISHED

The Upper Hunter Mining Dialogue recently published its latest report on rehabilitation progress, with the 2022 results demonstrating a continued focus by industry on progressively rehabilitating mining land across the region.

The Dialogue's Rehabilitation Principles and Commitments project commenced in 2012 and has seen industry commit to a set of common rehabilitation principles that has improved the transparency of rehabilitation progress of Upper Hunter mine rehabilitation.

Total disturbed land under rehabilitation*

14,987 ha

Total disturbed land awaiting rehabilitation*

23,572 ha

*at the end of the reporting period



Almost 40% of land disturbed by mining in the Upper Hunter is under active rehabilitation.

2022 Rehabilitation Snapshot

<p>New rehabilitation</p> <p>529 ha</p> <p>Last Year (2021)</p> <p>701 ha</p> <p>Five-year average</p> <p>804 ha</p>	<p>New disturbance</p> <p>676 ha</p> <p>Last Year (2021)</p> <p>514 ha</p> <p>Five-year average</p> <p>1,043 ha</p>
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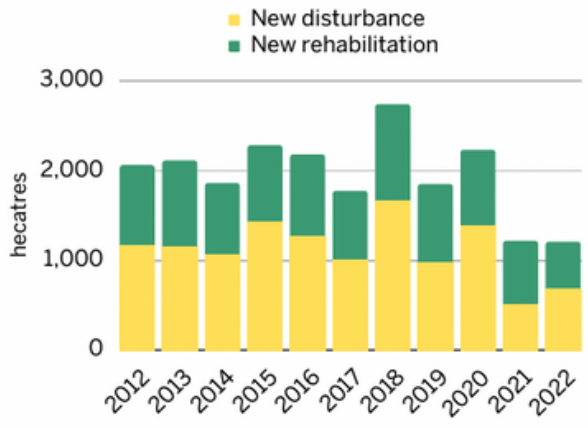


Figure 1: Comparison of annual new rehabilitation and disturbance

The report for the 2022 calendar year shows that 529 hectares of land was rehabilitated that year, compared to 676 hectares newly disturbed through mining activities.

The 2022 results also show that the total amount of disturbed land under rehabilitation has climbed to just under 15,000 ha (up from 8,800 ha in 2012), with almost 40% of the total amount of disturbed land now under rehabilitation at the close of the 2022 reporting period (this percentage has increased from just under 33% in 2012).

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The Dialogue rehabilitation reporting project builds on requirements that all mines in NSW have to report on their rehabilitation progress.

Under new standard conditions on mining leases implemented in 2021 to ensure progressive rehabilitation occurs and sustainable post-mining land use outcomes are achieved, all Upper Hunter operations are required to lodge an annual rehabilitation report and forward program, as well as spatial plans via the Mine Rehabilitation (GIS) Portal, with spatial information anticipated to be publicly available in mid-2024.

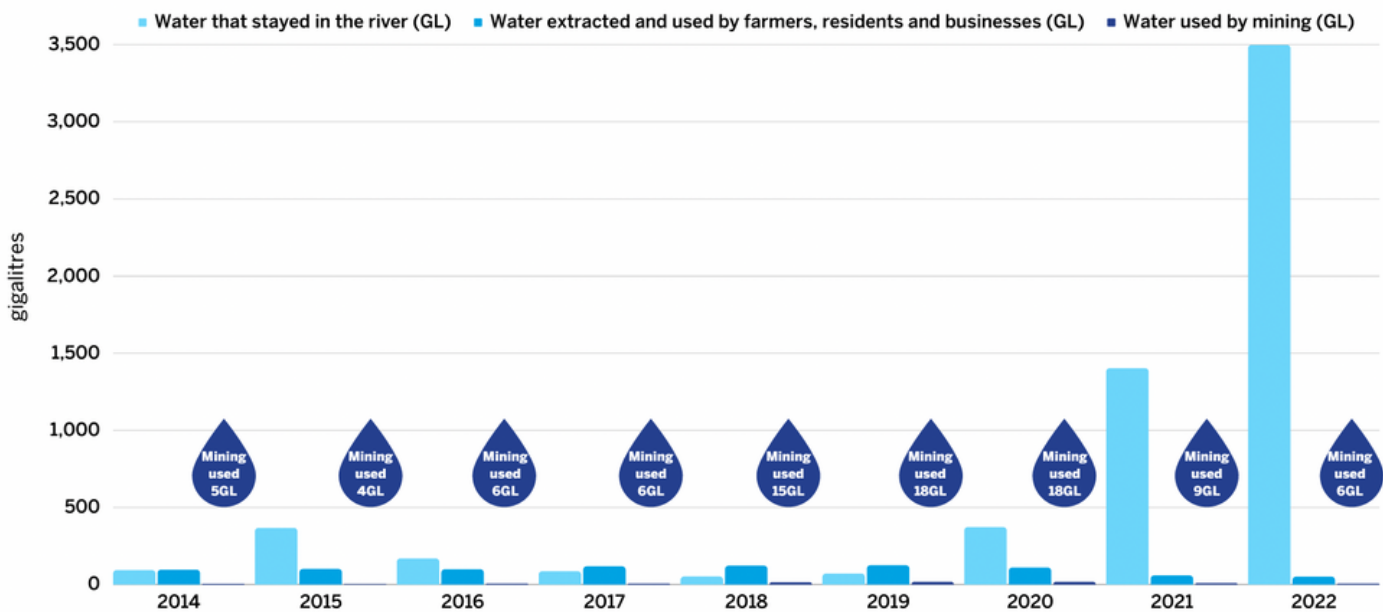
To view the latest results and previous reports, visit <https://miningdialogue.com.au/featured/rehabilitation-reporting>

UPPER HUNTER MINING DIALOGUE RELEASES 2022 WATER USE RESULTS

The Upper Hunter Mining Dialogue recently published its latest report on water use by mining companies across the Upper Hunter, with the 2022 results highlighting the significantly wetter-than-average conditions experienced over the last few years.

The latest report from the Water Accounting Framework project, which commenced in 2014, shows that industry used just 0.2% (or 6.1GL) of the total water available in the Hunter River System, compared to farmers, businesses and residents, which used a combined 1.4%. More than 98% of the water stayed in the river system in 2022, which saw 3,554 gigalitres of water enter the system.

Figure 1: Annual Upper Hunter Water Use Figures (2014-2022)



The wetter than average conditions in 2022 meant that companies were able to increase their water storage (by over 37GL), increase their reuse (up to 48% in 2022), and had more opportunities to discharge water into the Hunter River, given the high flow conditions.

The Water Accounting Framework project has greatly improved the transparency of mining's water use in the region in the context of other major water users.

Mining's use of Hunter River water is comparatively low (generally between 1% and 8%) and demonstrates that water stewardship remains a high priority for Upper Hunter mining companies.

To view the latest results, visit <https://miningdialogue.com.au/featured/water-use>





GET INVOLVED WITH THE DIALOGUE

The Upper Hunter Mining Dialogue is a collaboration between community, mining, business and government working together to address the cumulative impacts of mining and make the Upper Hunter a better place for all to live.

The Dialogue's participants represent a wide range of stakeholders who work together and, through our Working Groups and Committees, work together to investigate issues and implement solutions on environmental (e.g. air quality, rehabilitation and water quality and stewardship) and economic and social development issues.

The Dialogue is actively seeking new community members from across the Upper Hunter Valley. If you are interested in this opportunity, or to discover more about the Dialogue's purpose and vision and information about our Joint Working Groups, please email info@miningdialogue.com.au

Why join the Dialogue?

- ✓ Play an active role in contributing to improving the quality of life for those living in the Upper Hunter.
- ✓ Share your thoughts and ideas with representatives from the community and mining industry,
- ✓ Learn more about the Upper Hunter region, including projects and initiatives in the pipeline.
- ✓ Connect with new people in the Upper Hunter Community.



Please send an email to info@miningdialogue.com.au to join the Dialogue.

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