

AGENDA
Upper Hunter Mining Dialogue
Joint Environment Working Group

**UHMD Resource Centre, Upstairs of the Town Square Shopping Centre
Suite 1, 159 John Street, Singleton NSW 2330**

Wednesday 12 June 2019, 9:00 am to 12:00 pm

**Teleconference Details: Dial-in Info: 02 8319 9443
Organiser Code: 779-575-02 / Participant Code: 140-859-35**

| Agenda items | | Attach. |
|---------------------|---|----------------|
| 1. | Welcome and Apologies | |
| 2. | Minutes and actions of the previous meeting | |
| 3. | Update on Emissions & Health Projects | |
| 4. | Update on Land Management Projects | |
| 5. | Update on Water Projects | |
| 6. | Synoptic Plan Review Update | |
| 7. | Update on Communications Activities | Yes |
| 8. | Update on other Dialogue Working Groups/Committees | |
| 9. | Presentation: Neville Hodgkinson on Dialogue Bulga Cultural Centre Proposal | Yes |
| 10. | Other Business | |
| 11. | Next Meeting / Close | |

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 2

MINUTES AND ACTIONS FROM PREVIOUS MEETING

DRAFT MINUTES

**Upper Hunter Mining Dialogue
Joint Environment Working Group Meeting**

**UHMD Resource Centre, Upstairs of the Town Square Shopping Centre
Suite 1, 159 John Street, Singleton NSW 2330**

Wednesday 27 February 2019: 9.00 am to 11.45 am

Attending

| | |
|----------------------------|---------------------------------------|
| Bill Baxter (Acting Chair) | Yancoal |
| Cameron Archer | Tom Farrell Institute |
| Carolyn Herhily | Hunter New England Health |
| Ngaire Baker | Mount Pleasant Operation |
| Paul Amidy | Glencore |
| Sharon Pope | Muswellbrook Shire Council |
| Mitchell Bennett | NSW Environment Protection Authority |
| Jonathan Deacon | BHP |
| Monique Meyer | Resources Regulator |
| Ken Bray | Hunter Valley Water Users Association |
| Bob Mackie | theresource |
| James Barben | NSW Minerals Council |
| Craig Milton | NSW Minerals Council |

Apologies

| | |
|----------------------|--|
| Julie Thomas (Chair) | Muswellbrook Coal |
| Neil Griffiths | NSW Department of Primary Industries |
| Jim Morgan | Wybong Action Group / NSW Farmers' Association |
| Karen Marler | NSW Environment Protection Authority |
| Jo Powells | NSW Department of Primary Industries |
| John Watson | Glencore |
| Nigel Charnock | Glencore |
| Daniel Lewer | Hunter Land Management |
| Neil Nelson | Singleton Beef and Land Management Association |
| Simon Francis | NSW Department of Primary Industries - Water |
| Wendy Bowman | NSW Mine Watch |
| Glenda Briggs | NSW Department of Primary Industries |

1. Welcome and apologies

The Chair welcomed all attendees and noted apologies.

2. Minutes and actions of the previous meeting

The minutes from the previous meeting were accepted and the actions arising were addressed. The Dialogue is seeking an update from Eddie Harris on behalf of DPI Water on the Water Action Reform Plan.

3. Review of 2018 Annual Forum: Project Ideas from Discussion Sessions

Mr. Barben provided an overview of how the discussion would work, noting that the project ideas listed

were summarised from those raised by participants at the 2018 Forum Discussion Sessions. The following tables have captured the key projects under each of the themes whereby specific projects were supported for the Dialogue's consideration by the JASC.

| AIR QUALITY, EMISSIONS AND HEALTH |
|---|
| <p>Project Idea: Provide basic air quality information on what numbers the criteria involved in air quality assessments mean, and what to do when the air quality is bad? E.g. stay indoors, close your windows.</p> |
| <p>Working Group Discussion: Members noted the air quality fact sheets that provide this information. The EPA was asked as to whether they have any existing information available to leverage for these resources based on actions for the community when air is bad?</p> <p>The EPA advised that 24 hr. criteria means this data only shows exceedances. The challenge of using monitoring information is that it cannot be relied upon to advise people to act and stay indoors, as the information is too late. They have to know in advance. The EPA has been tweeting to community when high-risk days are predicted. These haven't captured dust storm events from the west. While there are shorter term projections done by sites and OEHL for analysis this is not community facing.</p> <p>Members agreed the Dialogue can include some UHAQMN info in our existing fact sheets. The EPA is happy to work with Dialogue to review and provide information.</p> <p>The EPA advised that OEHL is working on an infographic on Upper Hunter Air Quality. Leanne Graham (formerly of the EPA) is working on this.</p> |
| <p>Project Idea: Review of dust risk sources at sites and to examine dust impacts on health. Provide clear information on types and sources of dust, including that dust exists in many areas across NSW, even in those that don't have mining operations.</p> |
| <p>Working Group Discussion: Members noted the work already completed in this area, and whether there was some contextual information we can build into information package.</p> <p>The EPA advised that the UHAQMN Advisory Committee that is working to get some apportionment of mine dust in Upper Hunter. The initial state government funded study in 2012 focused on PM 2.5 only but could not differentiate between soil from a mine and other sources. A later study in Newcastle included coarser PM10 particles as well. There have been calls for another study, however the EPA are focusing efforts into reducing dust in the first place rather than further studies into it. The Dialogue advised that we could consider the need to revisit previous studies to determine any appropriate actions.</p> |
| <p>Project Idea: Integrate more air quality information as part of the School Mine Tours process.</p> |
| <p>Working Group Discussion: Members noted that this will likely pass this to School Tours Working Group to review.</p> |
| <p>Project Idea: Incorporate the Upper Hunter Air Quality Monitoring Network sites into tours and demonstrate how they work and their purpose in regulating air quality.</p> |

Working Group Discussion:

The EPA advised that there is a community expectation that if sites trigger a high number that actions will arise. It should be clarified that the EPA uses monitoring as an assistance tool to guide the EPA in determining where to focus their attention, rather than as a regulatory compliance tool. Clarifying this concept to students may help improve general community knowledge them better understand.

The Dialogue can look at incorporating more Network information into the tours. In terms of visiting a monitoring site as part of a tour, members were not overly supportive as it would add extra time and not add any additional benefits as the tours need to be engaging for students.

Project Idea:

Refinement of forecasts for the broader community.

Working Group Discussion:

Members noted this was not a well-defined action. The EPA noted that it is important to differentiate what is being done in this space by EPA and OEH. EPA is trying to forecast dust risk, not air quality, which OEH covers in their forecast system. The Upper Hunter is not able to use Air Quality modelling yet to make those predictions. Members noted there may not be much value in publicising the Dust Watch program given that it's in its final week of operation in Summer 2019.

Project Idea:

Best practice for dust management in the Hunter Valley - dust handbook.

Working Group Discussion:

The EPA advised that they are seeking to republish the dust handbook following updates that have gone through industry consultation. It will likely be solely electronically based, enabling greater access and sharing of the materials amongst relevant stakeholders. The Dialogue can communicate this progress to stakeholders on the Dialogue website and media and share any links to information once available.

Project Idea:

Investigate link between Merriwa Plateau Air Quality and Mining Dust.

Working Group Discussion:

Members acknowledged the concern about air quality, however, were unsure of the link between Ulan mines and the Merriwa region. The EPA advised that there would be modelling from when mines have been developed in their EA. A Merriwa monitor was deliberately placed in a paddock outside the town to pick up what is coming in the valley from West.

The Dialogue noted that we can look at the EAs for these particular projects. Typical mine dispersion particle modelling would likely drop out before reaching Merriwa from Ulan.

REHABILITATION AND FINAL LAND USE**Project Idea:**

Greater investigation of sustainable final land use options. E.g. consideration of pumped hydro, energy hub, floating solar, recreational use (Facebook Posts, based on Final Voids Study). Focus on finding best land uses to offset economic impacts of closure - avoid site by site planning.

Working Group Discussion:

Members noted the Dialogue's continued involvement in the Synoptic Plan review would help fulfil this goal in the long term.

Members supported the Dialogue's proposal to repackage the various Beneficial reuse of voids reports into a more digestible and synthesised format for publishing in the next few months would address this concern.

Members weren't supportive of additional work being done in this space at this time, given the voids present a range of unknown outcomes at this stage. The voids project has started the conversation.

The Resources Regulator has noted the complexity of post-mining land use planning will be a joint effort of stakeholders, industry and government to make this work. Members noted the flexibility needed to achieve outcomes.

Mr. Archer recommended that the government seek to acquire rehabilitated lands and repurpose on a broad scale, which will open up opportunities.

Project Idea:

Ensure detailed industry rehabilitation information is available to share across industry, and with the regulators and the community to increase transparency.

Working Group Discussion:

Members noted that the Dialogue collates and publishes industry rehab data annually on the website. There is an opportunity to make this more visible and promote better across the network, with other work being done in the government space to promote GIS data through the SEED portal.

Project Idea:

Communication of quality rehabilitation case studies/stories to media and community, outlining processes involved in rehabilitation, use via VR headsets to tell story.

Working Group Discussion:

Members noted the Dialogue's action to publish the case studies collected through the booklet that are relevant to the Upper Hunter and promotion across the network. The VR content is being utilised where possible.

The Resources Regulator is preparing communications on the Operational Rehabilitation Reforms, which may be shared by the Dialogue.

Project Idea:

Facilitate use of buffer land/voids to their potential, share information between mines with regulators and community. Better awareness of sites coming up to closure.

Working Group Discussion:

Members agreed that we need to be more active around promoting the use of lands around mines where possible. The Dialogue noted DPC discussions to help facilitate a buffer land prospectus to identify prospective land users' needs, as well as incentivise land available and what it could potentially be used for.

Members agreed it would be worth quantifying some clear industry buffer land use figures by detailing a breakdown of various classifications of non-operational land.

Members discussed buffer lands having limits to what they can feasibly support on the land due to safety regulations, however low impact cattle grazing could be supported.

A definition of buffer land was noted as an integral part of this discussion for industry. It was suggested this may include temporary or future buffer land. The collection of 2018 industry

rehabilitation data can help with this definition and help gain a clearer picture.

Members agreed that highlighting the underutilisation of prime agricultural land that can be utilised in the short-term would open up a range of opportunities for some prospective land users.

Members noted the prospect of redeveloping any part of a site which is a state significant project is highly difficult and encouraged the Dialogue's continued liaison with the Department of Planning to help facilitate a streamlined process

Yancoal noted their investment in a permanent property optimisation role within the company to manage these issues.

Project Idea:

Develop real life case studies of successful closure pilot sites for mine closure.

Working Group Discussion:

Members noted this would be covered in the Voids, Rehabilitation and Land use reports.

The Resources Regulator noted that closure won't necessarily be captured in the operational reforms, but they are working on another project with Steve Barry (DPE) to gather case studies.

Project Idea:

Detailed assessment of void water quality

Working Group Discussion:

Members noted the study completed in the Beneficial Reuse of Voids projects, and that this can be incorporated into a more accessible format for the community. The Dialogue will seek to publish this in the coming months which should address this concern and start discussions. Members noted the issue identified in the reports of stratification, with some direction provided about future work being needed to develop guidelines about void water sampling. A suggestion was made to look at how Central Queensland spoils water quality may apply to Hunter models.

Project Idea:

Develop guiding principles around final land use options to increase flexibility. Need to find a greater balance between native bushland and agriculture.

Working Group Discussion:

Members noted that guiding principles already exist in development consents based on safe, stable landforms and that this information could be communicated. Mr. Archer encouraged reviewing the Great Eastern Ranges Project.

Project Idea: Communicate EA's/Approvals Process to stakeholders with accessible, clear and usable information to increase awareness.

Working Group Discussion: Members agreed the Dialogue can leverage off the work the Department has completed. The Major Projects website has been updated but it is difficult to navigate and access various materials. The Dialogue advised that we can promote external links to Resources Regulator, DRG, DPE and EPA fact sheets or web pages for all environmental issues through the Dialogue website Resources page. Members encouraged liaising with all key government or agency stakeholders to seek their top issues they'd like to share resources for.

WATER QUALITY AND STEWARDSHIP

Project Idea:

Look at inter-relation of air quality dust, impact on water tanks and climate patterns - could this be used as a predictive measure in doing EIS/EA assessment impacts?

Working Group Discussion:

Members noted the water tank sampling undertaken in Camberwell, where high lead levels were found to be caused by flashing on roofs.

The Dialogue can acknowledge the concern and provide information about it. Unsure of link between climate patterns other than dry weather can lead to dust which settles on roofs and if it rains, this may end up in the water tank. First flush filtration devices can help manage these impacts.

HNEH advised that EISs ask that tanks are taken care of, based on estimated dust levels. HNEH will forward the Camberwell study to the Dialogue for review. This may address the specific issue that was raised and point to any gaps that may require addressing.

Project Idea:

Improve access to the water use data and stewardship of local operations. Outline what companies are doing in terms of stewardship.

Working Group Discussion:

This is published annually through Dialogue website and infographic, which is looking at incorporating trending data. Members noted that there is a gap in knowledge as to what companies are doing in water stewardship. The project captures results, but not what each company is doing in terms of stewardship. The Dialogue noted that we can seek additional information in the 2018 data request, seeking a simple statement on stewardship and how the results have been determined. Builds on issues with community perceptions.

Members encouraged sharing good stories behind the results. Bloomfield noted an example of installing centrifuges to capture water for reuse more quickly.

Members noted that there is misperception of the impact of mines on the Hunter River. The EPA noted they are looking at this through the HRSTS Operations Committee and the impact of other pollution down the river.

Mr. Archer advised he would send historical data to the Dialogue relating to tidal pool, which shows characteristics of Hunter water quality.

Project Idea:

Education on water usage - Outline what water is captured, what is discharged, how water is managed and reused onsite?

Working Group Discussion:

Members noted that the idea of building some contextual information and case studies around WAF project. A lot of this data is provided in each company's individual annual report; however, the Dialogue can play a role in collecting this information to address this concern and dispel some negative perception of the impact of mines on local water systems.

ACTION:

- **Dialogue secretariat to include Working Group discussion and recommendations in Steering Committee papers for decision.**

4. Review of 2018 Annual Forum: Feedback from Participant Surveys

Members noted the feedback received from participants at the Forum.

5. Synoptic Plan Review Update

Members noted that progress on the Synoptic Plan would be delayed until after the election.

6. Update on Emissions and Health Projects

Mitchell Bennett from the NSW Environment Protection Authority joined the meeting to provide an update on current EPA air quality initiatives.

Mr. Bennett updated members on the revised Dust Assessment Handbook, which is due to be released shortly after recent consultation with industry and the collation of new images to depict examples of dust. Feedback from industry centred on a request to provide some context for the images, which have been considered by the EPA. Mr. Bennett also noted that the EPA is steering away from prescribing solutions and would be focused on outcomes. The booklet will be published electronically with some minor amendments, once it clears internal publishing standards. The Dialogue will advise members upon its release.

Mr. Bennett also updated members on the dust risk forecasting project the EPA has been progressing to help identify high-risk dust days. The 2018-19 project will be finishing shortly, with the EPA advising that most mines were doing a good job of controlling dust on difficult days. Members queried why the program focuses on Singleton rather than Muswellbrook, with Mr. Bennett advising that Singleton was the more populated centre, however notifications are sent to Muswellbrook, and the same expectations for control are considered here. Industry members noted that the predictive tool requires sites to modify their scheduled activities, and incorrect predictions can have a large impact on a site's ability to operate. The EPA noted this would form part of the review of the accuracy of the 18/19 program, with results still to be analysed.

Mr. Barben advised Mr. Bennett of the feedback and discussions from the 2018 Forum in relation to air quality, noting that stakeholders were seeking more information on air quality to filter through to the community, and encouraged the EPA to consider the potential to work with Hunter New England Health to deliver messages to the community, given their perceived credibility and independence from the industry. The Dialogue encouraged the EPA to provide some contextual information about Air Quality in the Upper Hunter compared to other regions, such as Sydney. Mr. Bennett noted that one of the challenges with air quality data is the community focus on poor air quality results from monitors deliberately placed near mines to pick up this quality, compared to the results at monitors closer to the general community. Mr. Bennett advised they would be happy to continue working with the Dialogue to help with air quality communications.

7. Update on Land Management Projects

Ms. Meyer provided an update on behalf of the Resources Regulator on the progress of the Operational Rehabilitation Reforms, noting that the submissions had provided 43 specific actions that the RR had accepted. These were focused around simplifying aspects of the Codes, creating an approvals pathway and certification process. The reforms progress will continue following the election.

Mr. Barben noted that the Dialogue would soon seek to collect information on rehabilitation results for 2018 in the coming weeks, to provide an update at the next working group meeting.

8. Update on Water Projects

Mr. Barben provided an update on the HRSTS Study, noting that the Dialogue is currently engaging with a consultant to look at the scope of a further study.

Mr. Barben noted that the Dialogue would soon seek to collect information on water accounting results for 2018 in the coming weeks. Mr. Bray asked industry whether they had any projections on their likely water use for 2018 as yet. Most members advised that they were currently in the process of collating this information and did not have specific numbers to provide yet, although it was generally expected that it would be higher than in wetter years given the continued dry conditions. Other sites advised they have been doing internal company projections for water use across operations for different scenarios including drought conditions.

The Greater Hunter Regional Water Strategy was discussed with Mr. Barben noting that Eddie Harris

(Dept of Industry, Water) had recently spoken at a workshop about the strategy and encouraged the Hunter to support the proposal given it has to compete for infrastructure projects against other regions. Members discussed whether reductions in water allocations under the current system could potentially be introduced in the near future.

9. Update on Communications Activities

Mr. Mackie provided an update on recent communications activities, in particular the Dialogue’s recent discussions with RDA Hunter on a proposal to include the School Mine Tours in a STEM program. Members supported this as a great opportunity for engagement with the education system with a clear career outcome. Members noted this program has received government backing and is well-resourced to capitalise on the success of the tours program to date.

10. Updates from other Working Groups

Members noted the Working Group updates.

11. Other Business

No other business was discussed.

12. Next Meeting & Close

The meeting closed at 11:50 am

**Actions arising from meeting
UHMD Land Management and Water Joint Working Group Meeting**

| Action | Responsibility | Status |
|---|-----------------------------|--------------------|
| DPI Water Availability Projects (Previous Meeting) | | |
| Dialogue secretariat to liaise with DPI Water for an update on ‘water availability’ projects. | Dialogue secretariat | In progress |
| Review of 2018 Annual Forum: Project Ideas from Discussion Sessions | | |
| Dialogue secretariat to include Working Group discussion and recommendations in Steering Committee papers for decision. | Dialogue secretariat | Completed |

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 3

EMISSIONS AND HEALTH UPDATE

Current Projects

a. Analysis of Upper Hunter Air Quality Monitoring Network Data

At the 2019 Dialogue meetings, Steering Committee members supported the Dialogue conducting an analysis of Upper Hunter Air Quality Monitoring Network data to provide an assessment of long-term trends on PM10 and PM2.5 levels. The intent of this project is to help the Dialogue to provide contextual information and some factual insights on the current regional data and how it compares with other NSW regions.

Members supported the establishment of a project steering committee similar to the HRSTS study, and the involvement of relevant community members, regulators such as EPA and OEH, and an independent research institution or agency to provide credibility and determine a scope for the project. There may be similar work being undertaken by the Network's Advisory Committee and the EPA, so the Dialogue secretariat will need to liaise with these stakeholders to ensure the Dialogue project fills an information gap.

Members noted the potential involvement of the Communications Working Group to consider how to communicate and promote any findings to ensure this resonates correctly with stakeholders.

Timeframes

The Dialogue would be seeking to finalise this project prior to October 2019, to showcase the results at the 2019 Forum.

Resources Required

Complete and verified air quality monitoring data is available up to 31 December 2018 from the Upper Hunter Air Quality Monitoring Network website operated by OEH. Other data such as regional rainfall data will be needed to provide this contextual analysis.

There are a number of potential agencies and/or experts that the Dialogue might consider for this project, including:

- CSIRO - Melita Keywood, involved in the Upper & Lower Hunter particle characterisation studies
- ANSTO - David Cohen, involved in the Upper & Lower Hunter particle characterisation studies
- ERM - Damon Roddis
- Jacobs - Shane Lakmaker
- EMM
- Todoroski

Proposed Steering Committee

If a project steering committee is supported, this group might consist of:

- 2 x Industry representatives incl. John Watson (Glencore) who sits on the Monitoring Network Advisory Committee.
- 1 x EPA and/or OEH representative
- 1 x Local Government representative
- 1 x Community representative
- 1 x Dialogue Secretariat

Other considerations

Other considerations to note in relation to this project include:

- There may be a conflict of interest with multiple agencies/experts given their work with industry.

- The project consultant will need to incorporate climate data into the analysis to correlate dust with drought.
- The scope of this work is limited by the budget of the Dialogue Secretariat.

Other projects/activities:

a. NSW Government Initiatives

Upper Hunter Dust Risk Forecasting Scheme

The EPA is reviewing the results from ongoing work to refine a predictive model that forecasts high-risk dust days, with the Dust Watch Summer Program recently ending. The Dialogue understands that the EPA intends to undertake another forecasting program in Spring 2018.

Dust Assessment Handbook

At the February 2019 Joint Working Group meeting Mitchell Bennett from the EPA noted that the updated handbook would be republished following industry consultation, however notification of this is forthcoming. The Dialogue understands the revised handbook will be a digital-only resource and will contact the EPA to provide a link to this resource on the website.

Upper Hunter air quality infographic

OEH is also developing an Upper Hunter air quality infographic, which is anticipated to be finalised shortly. The Dialogue will continue to liaise with OEH and promote to stakeholders once completed.

b. Upper Hunter Air Quality Monitoring Network Update

The Spring 2018 and Summer 2018-19 Monitoring Network results have both been published since the previous Joint Working Group meeting. The executive summaries for both have been included for reference.

Spring 2018

Upper Hunter air quality for 1 September to 30 November 2018 was generally good to fair. Muswellbrook and Singleton recorded very good to fair air quality indices within national benchmarks 98% and 96% of the time, respectively. Other key items to note from this seasonal update include:

- Levels of fine particulate matter PM2.5 (particles less than or equal to 2.5 microns in diameter), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) were below benchmark concentrations.
- Daily average levels of PM10 (particles less than or equal to 10 microns in diameter) were above the 50 µg/m³ benchmark on 13 days (15, 19 and 22 September, 31 October and 2, 6–7, 20–23 and 25–26 November). Regional maximum daily PM10 levels on these days ranged from 52.4 to 243.9 µg/m³.
 - All sites recorded days over the PM10 benchmark, ranging from two days, at Aberdeen, Merriwa, Muswellbrook and Wybong, up to 10 days at Camberwell (Table 1).
 - Most of New South Wales continued to be drought-affected, with widespread dust storms continuing. The most extensive events occurred on 21–23 November, being exceptional events due to long-range dust transport. All sites in the region exceeded the PM10 benchmark during this dust event.
 - On 22 November 44 of the 47 air quality monitoring stations in the NSW network recorded PM10 levels over the benchmark. A dust storm originated from South Australia and drought-affected regions in New South Wales on 21 November. More information on this event can be found in the New South Wales Annual Air Quality Statement 2018.
 - At the larger population sites, PM10 levels were also over the benchmark on 6 November at Singleton. On this day, the region was affected by a combination of local dust and long-range dust from north-west NSW (arriving in the region in the afternoon).

For the full Spring 2018 seasonal update, please click the link below:

<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Air/air-quality-monitoring-network-upper-hunter-spring-2019-190111.pdf>

Summer 2018-19

Upper Hunter air quality for 1 December 2018 to 28 February 2019 was generally good to fair. Muswellbrook and Singleton recorded very good to fair air quality indices within national benchmarks 93% and 100% of the time, respectively.

- Levels of fine particulate matter PM_{2.5} (particles less than or equal to 2.5 microns in diameter), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) were below benchmark concentrations.
- Daily average levels of PM₁₀ (particles less than or equal to 10 microns in diameter) were above the 50 µg/m³ benchmark on 15 days (2, 4, 15–16 December 2–3, 16–19, 31 January, and 10, 12–13, 19 February). Regional maximum daily PM₁₀ levels on these days ranged from 51.4 to 128.2 µg/m³
 - All sites, except Singleton, recorded days over the PM₁₀ benchmark, ranging from two days at Singleton South up to eight days at Camberwell (Table 1).
 - Most of New South Wales continued to be drought-affected, with widespread dust storms continuing throughout the season. The most extensive event occurred on 13 February, when 13 sites in the Upper Hunter and all sites in the North-west Slopes and Northern Tablelands exceeded the PM₁₀ benchmark. This widespread dust storm was driven by the passage of a cold front. More information on this event can be found in the DustWatch report – February 2019.
 - The larger population sites recorded PM₁₀ levels over the benchmark on 16 January (Aberdeen and Muswellbrook) and 17 January (Muswellbrook) partly due to bushfire smoke; 2 December (Muswellbrook) and 10, 13 and 19 February (Aberdeen and Muswellbrook) due to a combination of dust from external and local sources. See the Days above benchmark concentrations section

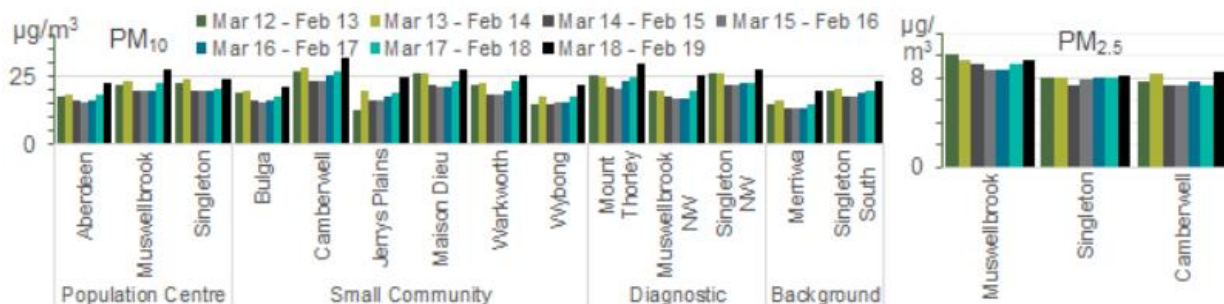


Figure 1 PM₁₀ and PM_{2.5} rolling annual averages: 2012–13 to 2018–19

For the full Summer 2018-19 seasonal update, please click the link below:

<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Air/air-quality-monitoring-network-upper-hunter-summer-2018-2019-190178.pdf>

Recommendation:

- That Working Group members discuss and confirm an approach to the Air Quality Data Analysis project.

FOR INFORMATION/DISCUSSION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 4

UPDATE ON LAND MANAGEMENT PROJECTS

a. Current Dialogue Projects

Rehabilitation Principles and Commitments - 2018 Results

The Dialogue is currently seeking updated figures and other information for the 2018 calendar year from all industry members for this annual project.

There are a small number of sites with outstanding data, which the Dialogue secretariat is chasing up. Once all data is provided, the results will be finalised and circulated amongst industry representatives to confirm prior to publishing on the Dialogue website. A progress update will be provided on the day, as figures are still being collated.

An infographic highlighting emerging trends and analysis of the data collected to date will be updated to reflect the 2018 results. For reference, the infographic for the 2017 results can be reviewed on the Dialogue website:

http://www.nswmining.com.au/getattachment/Dialogue/Latest-Projects/Land-Management/Rehabilitation-Principles-and-Commitments/Rehab_Infographic_A4Flyer.pdf

Rehabilitation Principles and Commitments - Reporting on Buffer Land

At the 2019 Project Discussions, the Steering Committee members supported a project to gather additional information about buffer land through the collection of 2018 data for the annual rehabilitation reporting project. This project will also support other industry work being undertaken by the NSWMC who are working with the DPC on a buffer and rehabilitated mining land prospectus that may be provided to capture expressions of interest from third parties in relation to potential development.

While there are potential concerns regarding how the use of buffer land may impact or restrict existing operations or create additional community complaints for operations, members noted that demonstrating the concept that buffer land can have a productive purpose would help address community concerns. The Dialogue liaised with industry to determine an appropriate definition to capture industry figures.

For the purposes of this reporting project that 'buffer land' is defined as 'land owned by mining companies that is outside the disturbance/operational footprint of currently approved operations'. It does not include land held as biodiversity offsets. The amount of buffer land may vary over time as future approvals are granted. The Dialogue is seeking for companies to report an estimated total amount of buffer land per company, as well as breakdown of buffer land across the following land uses, where possible:

- Agricultural land - grazing, dairy, cropping, intensive, other
- Residential land
- Commercial land
- Recreational land
- Vacant land.

Once all data is received, this will be reviewed by the Dialogue and all industry partners and included in the reporting of rehabilitation results where possible.

Grazing Trials / ACARP study into rehabilitation projects

Work continues on the follow-on ACARP project, C27030 Examination of Past and Present Mine Rehabilitation to Grazing Land as a Guide to Future Research.

The desktop review component is well underway with information provided by most companies (one

additional company may still contribute). Field work monitoring is due to commence at the end of May and June. Liddell site access has been confirmed; however, approval is still being sought from other sites. Mr. Griffiths continues to note a number of challenges both in terms of environmental conditions and the availability and format of data.

Beneficial Reuse of Voids summary document

At the February 2019 Dialogue meetings, the Steering Committee Members supported the publishing of the Beneficial reuse of voids report materials and felt that this work would be of benefit to improve stakeholder understanding of post-mining land use in the Upper Hunter.

The Dialogue secretariat is currently finalising a summary document to highlight the work that the Dialogue has done researching the beneficial reuse of voids. This is expected to be completed within the next month, subject to review.

Pilot Pathway for Post-Mining Land Use

The Dialogue Secretariat recently attended an Upper Hunter Economic Development Working Group (UHEDWG) meeting to discuss the feedback from the UHMD and this project specifically. The Working Group is chaired by the Department of Premier and Cabinet and attended by representatives from local Government, DPE, Resources Regulator, Hunter Development Corporation etc. There was strong support from the Working Group to progress the concept and an action was taken to determine if a resource was available within Government to advance the concept.

The Dialogue Secretariat has also separately met with the Department of Planning and Environment Mining Policy team who have also expressed an interest in the project. A briefing paper was being prepared for support internally within DPE to support the action from the UHEDWG meeting.

Investigating Availability of Long-Term Void Water Quality Information Members

Work is yet to commence on this project, as supported by the Steering Committee members in February 2019. A number of sites which participated in the Beneficial Reuse of Voids reports through the provision of water quality data in relation to anticipated voids will provide a starting point to review this information.

b. Other projects/activities

NSW Government Improving Mine Rehabilitation Discussion paper

The Department of Planning and Environment is yet to publicly respond to any submissions received on a Discussion Paper proposing to integrate rehabilitation requirements into the assessment and operational phases of mining, as well as developing policies for how rehabilitation should be regulated and how final voids should be managed. The policy remains on hold and is subject to ongoing consideration and internal discussion regarding their future form and content.

Operational Rehabilitation Compliance and Reporting Reforms

The Resources Regulator (RR) has reviewed submissions received on the Operational Rehabilitation Compliance and Reporting Reforms (the Reforms). RR are working to revise the Draft Proposed Mining Lease Conditions, with the Codes of Practice and Guidelines still under review.

RR are considering taking a different approach to the ML conditions due to the considerable work involved in amending each title individually, and that this could involve including the revised ML conditions in the Mining Regs and only retaining special conditions specific to each site in the ML.

It is expected that these reforms will be finalised in Q3, 2019.

Senate Committee Inquiry into mine rehabilitation

The Senate Environment and Communications References Committee Inquiry report into “Rehabilitation of mining and resources projects and power station ash dams as it relates to Commonwealth responsibilities” was tabled on 20 March 2019. The Committee was unable to reach a united position on any recommendations and as such there is no majority report. Instead, each party has therefore provided individual comments. The government still has to respond to the report, including the various individual recommendations.

Recommendation:

- **That Working Group members note the rehabilitation-focused projects and provide data and commentary where required.**

FOR INFORMATION / DISCUSSION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 5

UPDATE ON WATER PROJECTS

a. Current projects

Water Accounting Framework - 2018 Water Use Results

The Dialogue secretariat is currently collating data for the 2018 calendar year from all industry Dialogue members. Most sites have provided water data which will be analysed by Hydro and Engineering Consulting (HEC), as with previous years. To avoid inaccuracies in the reporting of water usage info into the online water register portal operated by the NSW Water Register, the Dialogue will likely not be able to finalise this project until late July.

The Dialogue is currently developing a Fact Sheet or Frequently Asked Questions (FAQ) document to help improve general understanding of some of the complex aspects of the water accounting framework. The FAQ document will be developed to coincide with the analysis of 2018 results.

The Dialogue website was also recently updated to include a general FAQ from the Minerals Council of Australia. Members are encouraged to provide input into some potential questions about industry water accounting and stewardship practices that stakeholders who are unfamiliar with the project might have.

Water Accounting Framework - Contextual Information and Industry Case Studies

To coincide with the recent data request, the Dialogue secretariat is also seeking to gather additional information from industry to provide some context to annual water results. This project was supported by the Steering Committees at the recent Dialogue meetings to discuss 2019 projects.

Further, industry case studies regarding specific water management or stewardship initiatives are also being sought. Members encouraged the involvement of Communications Working Group where relevant to help support in communicating these stories, as well as exploring greater use of other social media (e.g. LinkedIn, Twitter and Facebook). At the recent meetings, two potential case studies were identified including Bloomfield's new centrifuges, and a summary of the benefits of moving tailings water through the Greater Ravensworth Water Sharing Scheme.

The Dialogue intends to collate this contextual information and publish in an annual Dialogue report similar to the annual Rehabilitation Principles and Commitments report which all Dialogue members complete.

Hunter River Salinity Trading Scheme (HRSTS) Water Quality Study

Following the completion of the initial study into the water quality at Hunter River Salinity Trading Scheme discharge points compared to the overall health of the Hunter River, the Steering Committee met with the EPA and the University of Newcastle to discuss the need for a follow-on study.

It was considered that, given the good performance of the scheme, that a further study may not be necessary. The steering committee thought it important to close out the issues identified in the initial study and are currently considering the need for further studies.

The Dialogue Secretariat has sought advice from hydrological consulting firm HEC to understand the potential options to close out the study and is awaiting advice. Options considered include further monitoring and flow and concentration modelling.

b. Other projects/activities

Water Reform Action Plan Update - Greater Hunter Regional Water Strategy

At the previous Working Group meeting members were advised that submissions were open for the Greater Hunter Regional Water Strategy, which was released in late 2018. The Strategy is designed to secure water supply in the Greater Hunter Region over the coming decades. Submissions on the strategy were extended for an additional month to the end of March 2019. The Government is still reviewing these submissions and is yet to provide a response.

Recommendation:

- That Working Group members note the progress of the water accounting project.

FOR INFORMATION / DISCUSSION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 6

SYNOPTIC PLAN UPDATE

Issue

The Synoptic Plan Review continues to progress.

Background

Work is continuing on Synoptic Plan including the development of a road map which ties the various components of the review together. The Dialogue secretariat understands that this work has largely stalled due to the NSW election and machinery of Government changes. The Dialogue secretariat remains engaged with DPC who are leading the review process and will provide updates as necessary.

FOR INFORMATION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 27 February 2019**

Agenda Item 7

UPDATE ON COMMUNICATIONS ACTIVITIES

Community and stakeholder engagement

- The School Mine Tours Program 2019 schedule has now been finalised with the first tours scheduled to roll out starting in May. The May/June schedule includes 8 tours across 7 mine sites and 11 schools before taking a break in July and early August and recommencing in late August and September with 13 tours from 7 schools to 6 mine sites. All but two Upper Hunter schools – in our catchment – are participating and all but one of the Dialogue’s active mine sites have agreed to take part.
- Discussions continue with Regional Development Australia (RDA) Hunter branch in regard to the NSW Education Department’s education strategy to introduce a greater focus on STEM courses into Hunter public schools. Those discussions include the Education Department and RDA assisting in the development of in-class teaching material.
- The Dialogue was again on display at the Upper Hunter Show in March. While the number of community interactions was low at 19 with only five surveys collected, many of the conversations were detailed and lengthy and provided good contacts. In April the Dialogue display attended the Newcastle Knights Voice for Mining Hi Vis match and collected 10 surveys from 18 interactions. Tocal Field Days in May was again busy for the Dialogue display with 76 surveys collected from 82 interactions and the public debut of our Virtual Reality video attracting 78 viewers (separate to the interactions total). A summary of the analysis of the Dialogue Community Surveys has been **attached** for reference.
- The Virtual Reality video is being fine-tuned to make it a more educational experience. A script using previously approved Dialogue messaging has been written and will be used as a voice over as viewers negotiate through the main video. Additional video footage is also being added to better explain the entire mining process. A shorter, 5-7-minute video is also being produced, using the highlights from the main video and again with the scripted voice over to allow viewers to more quickly tour a virtual reality mine in a user-friendly format.
- The Dialogue has now attended and presented at 14 of 17 CCC meetings for Dialogue industry partners in the Upper Hunter. This has provided an opportunity to improve awareness of the Dialogue amongst highly engaged community members as well as site personnel. Face to face meetings with additional community interest groups are now being sought with the first being held with a representative from the Singleton Rotary Club shortly.
- The Dialogue also had the opportunity to present to NSW Deputy Premier and Minister for Resources John Barilaro during his recent visit to Upper Hunter mines. The briefing covered the Dialogue’s origin, historical projects and current strategies, The Deputy Premier supported the Dialogue and recognised its value and contribution to making the Upper Hunter a better place for everyone to live.

Communication Resources

- The Dialogue’s third newsletter was published in May and has been distributed electronically across the Dialogue’s database as well as printed copies being distributed at community engagement events.
- The Dialogue’s Facebook page continues to grow engagement; since July 2018 its posts have reached 2230 people.

Media

- In recent media, articles detailing the Dialogue’s proposed new projects for 2019, the 2019 roll-out of the School Mine Tours Program and the Dialogue’s work with the Virtual Reality video have all appeared in local media outlets.

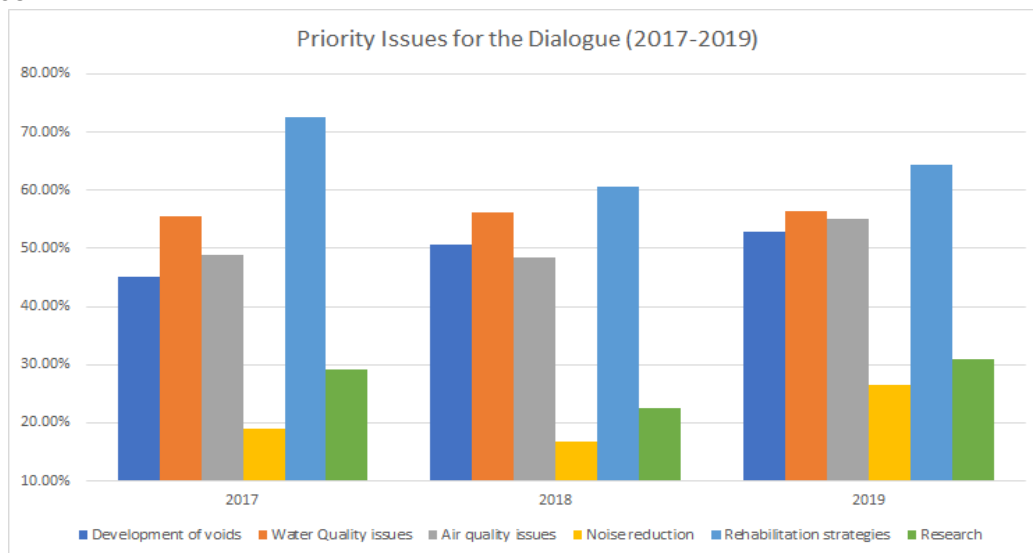
FOR INFORMATION

Attachment: Analysis of Upper Hunter Mining Dialogue Community Surveys (May 2019)

Demographics

- Over 540 surveys collected from 19 events attended since 2016.
- Bulk of responses from Tocal Field Day participants (65%), with the Singleton and Upper Hunter Shows also generating significant interactions.
- Roughly 60% of survey responses are from males and 40% from females.
- Survey responses are evenly spread between those aged 39 and younger (32%), those aged 40 to 59 (36%) and those 60 or above (31%).
- Survey respondents can generally be categorised as either from the Upper Hunter (e.g. Singleton, Muswellbrook and Scone) (29%), Lower Hunter (e.g. Maitland, Cessnock, Branxton) (32%), Other Hunter locations (e.g. Lake Macquarie, Newcastle and Port Stephens) (19%), and the Rest of NSW (e.g. Sydney, Central Coast, Mid North Coast and New England) (21%).
- The majority of respondents either live and work in the Upper Hunter (39%) or have no relation to the area whatsoever (40%). 14% of respondents live in the area, but do not work, and 7% of respondents work in the area but reside outside the Upper Hunter.

Priorities



- When asked what priority the Dialogue should focus on, respondents have consistently advised that rehabilitation strategies are their top priority, although this has fallen somewhat to 65% of respondents in 2019, from 73% of respondents in 2017. Related to this priority, respondents are increasingly advising that the development of voids should be a priority issue, rising from 45% of respondents in 2017 to 53% of respondents in 2019.
- Air Quality has emerged as a significant issue for respondents over the past year, rising from 48% of respondents to 55% in the last 2 months. Noise reduction has also seen an increase as being a priority issue from 17% of respondents in 2018 to 26% of respondents in 2019.
- Water Quality is consistently ranked as the second priority for the Dialogue to address since this question was posed in 2017, with around 56% of respondents each year.
- Female respondents were more likely to report Air Quality as a priority issue (58%) than male respondents were (45%), whereas male respondents were more likely to report the development of voids as a priority issue (52%) than female respondents (43%).
- Rehabilitation strategies were the top priority for those aged 39 and younger (64%) and those 60 or above (69%), although ranked only third ranked for those aged 40 to 59 (33%).
- Water quality was the top priority for those aged 40 to 59 (59%), and was ranked second by those 60 and above (66%) and third by those aged 39 and younger (43%)

- Air Quality was the second ranked priority for those aged 39 and younger (47%), while the development of voids was a key priority for the 40 to 59 group (53%), and 60 and older (61%)
- Upper Hunter respondents reported air quality as priority issue compared with other regions, with Lower Hunter respondents and those from outside the Hunter more likely to report Water Quality as a priority issue. Other Hunter respondents reported the development of voids as a top priority. Respondents from all regions reported rehabilitation strategies as a priority issue.

Benefits

- When asked to identify the key benefits from mining in the Upper Hunter, respondents have consistently ranked the following benefits (grouped for similarity in responses) each year:
 1. Jobs/Employment/Work (70%)
 2. Economy/Income/Money/Taxes (32%)
 3. Community Support/sponsorship (19%)
 4. Infrastructure/Growth/Development/Investment (12%)
 5. Energy/Resources/Electricity (7%)

Coexistence

- Overall, 60% of respondents provided a strong positive response to the question of whether they believed the mining industry coexists with the Upper Hunter community, and this has increased about 5% since 2016.
- Encouragingly only 6% of respondents returned an overly negative response to this question, and 'No' responses have reduced from 6% in 2016 to 2% in 2019.
- Roughly 1 in 5 responses to this question have been a suggestion to increase coexistence between industry and the community.
- The number of respondents advising that they were either unsure of mining's coexistence doubled over the duration of this survey from 9% to 18%.

Beneficial use of voids

- Of the total respondents to this question, nearly half (45%) have indicated that they believe voids can be used beneficially post-mining.
- Only around 5% of respondents stated that they did not believe voids could be used beneficially.
- Over a third of respondents did not indicate a Yes/No response, but simply provided a post-mining land use, which could imply that they do believe voids can be used beneficially for their state
- 1 in 8 respondents were unsure or provided a response that indicated that they may be.
- The top 5 suggestions provided by respondents have not changed dramatically from when these questions were first posed in 2017. A majority of the responses were for voids to be used as water storage dams, or to look at using them as hydro power. Other key suggestions were to provide recreation facilities (fishing, water sports, bike trails) and for waste storage and landfill. Finally, many respondents indicated they would like to see voids rehabilitated and returned to native vegetation and/or agricultural land.

Awareness of Dialogue and Website

- In total, only 3 in 10 respondents are aware of the Dialogue. This result is largely unchanged since 2016.
- The amount of people unaware of the Dialogue remains static at about 67%.
- Less than 1 in 10 respondents have accessed the Dialogue website.

Demographics

| Gender | 2019 | | 2018 | | 2017 | | 2016 | | Total | |
|--------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| Female | 37 | 40.2% | 42 | 45.2% | 65 | 37.6% | 74 | 40.7% | 218 | 40.4% |
| Male | 54 | 58.7% | 51 | 54.8% | 105 | 60.7% | 107 | 58.8% | 317 | 58.7% |
| N/A | 1 | 1.1% | 0 | 0.0% | 3 | 1.7% | 1 | 0.6% | 5 | 0.9% |
| Total | 92 | 100% | 93 | 100% | 173 | 100% | 182 | 100% | 540 | 100% |

| Age | 2019 | | 2018 | | 2017 | | 2016 | | Total | |
|--------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| <18 | 7 | 7.7% | 6 | 6.5% | 12 | 6.9% | 20 | 11.0% | 45 | 8.4% |
| 18-20 | 1 | 1.1% | 2 | 2.2% | 8 | 4.6% | 4 | 2.2% | 15 | 2.8% |
| 21-29 | 4 | 4.4% | 11 | 11.8% | 8 | 4.6% | 12 | 6.6% | 35 | 6.5% |
| 30-39 | 16 | 17.6% | 16 | 17.2% | 30 | 17.3% | 14 | 7.7% | 76 | 14.1% |
| 40-49 | 17 | 18.7% | 10 | 10.8% | 24 | 13.9% | 30 | 16.5% | 81 | 15.0% |
| 50-59 | 19 | 20.9% | 16 | 17.2% | 32 | 18.5% | 48 | 26.4% | 115 | 21.3% |
| 60+ | 27 | 29.7% | 32 | 34.4% | 58 | 33.5% | 52 | 28.6% | 169 | 31.4% |
| N/A | 0 | 0.0% | 0 | 0.0% | 1 | 0.6% | 2 | 1.1% | 3 | 0.6% |
| Total | 91 | 100% | 93 | 100% | 173 | 100% | 182 | 100% | 539 | 100% |

| Location | 2019 | | 2018 | | 2017 | | 2016 | | Total | |
|--------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| Upper Hunter | 14 | 15.4% | 28 | 31.1% | 63 | 36.8% | 48 | 26.4% | 153 | 28.7% |
| Lower Hunter | 37 | 40.7% | 27 | 30.0% | 41 | 24.0% | 65 | 35.7% | 170 | 31.8% |
| Other Hunter | 22 | 24.2% | 23 | 25.6% | 23 | 13.5% | 31 | 17.0% | 99 | 18.5% |
| Non-Hunter | 18 | 19.8% | 12 | 13.3% | 44 | 25.7% | 38 | 20.9% | 112 | 21.0% |
| Total | 91 | 100% | 90 | 100% | 171 | 100% | 182 | 100% | 534 | 100% |

| Relation to Area | 2019 | | 2018 | | 2017 | | Total | |
|------------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % |
| None | 39 | 43.3% | 32 | 34.4% | 71 | 41.3% | 142 | 40.0% |
| Live/Work | 33 | 36.7% | 35 | 37.6% | 71 | 41.3% | 139 | 39.2% |
| Live Only | 11 | 12.2% | 21 | 22.6% | 19 | 11.1% | 51 | 14.4% |
| Work Only | 7 | 7.8% | 5 | 5.4% | 11 | 6.4% | 23 | 6.5% |
| Total | 90 | 100% | 93 | 100% | 172 | 100% | 355 | 100% |

| Event | 2019 | | 2018 | | 2017 | | 2016 | | Total | |
|---------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| Total Field | 77 | 83.7% | 41 | 44.1% | 71 | 41.0% | 160 | 87.9% | 349 | 64.6% |
| UH Show | 5 | 5.4% | 9 | 9.7% | 21 | 12.1% | | | 35 | 6.5% |
| Voice4Mining | 10 | 10.9% | | | | | | | 10 | 1.9% |
| Broke Fair | | | 6 | 6.5% | 8 | 4.6% | | | 14 | 2.6% |
| Singleton Sh. | | | 9 | 9.7% | 30 | 17.3% | 22 | 12.1% | 61 | 11.3% |
| BHP Comm. | | | 9 | 9.7% | | | | | 9 | 1.7% |
| Coal Festival | | | 19 | 20.4% | | | | | 19 | 3.5% |
| MB Xmas Sp. | | | | | 6 | 3.5% | | | 6 | 1.1% |
| HSEC Conf. | | | | | 22 | 12.7% | | | 22 | 4.1% |
| Tom Farrell | | | | | 11 | 6.4% | | | 11 | 2.0% |
| Cessnock Sh. | | | | | 4 | 2.3% | | | 4 | 0.7% |
| Total | 92 | 100% | 93 | 100% | 173 | 100% | 182 | 100% | 540 | 100% |

Priorities

| Priorities | 2019 | | 2018 | | 2017 | | Total | |
|---------------|-----------|------------|-----------|------------|------------|------------|------------|------------|
| | Count | % | Count | % | Count | % | Count | % |
| Voids Develop | 46 | 52.9% | 45 | 50.6% | 74 | 45.1% | 165 | 48.5% |
| Water Quality | 49 | 56.3% | 50 | 56.2% | 91 | 55.5% | 190 | 55.9% |
| Air Quality | 48 | 55.2% | 43 | 48.34% | 80 | 48.78% | 171 | 50.29% |
| Noise reduce | 23 | 26.4% | 15 | 16.85% | 31 | 18.90% | 69 | 20.39% |
| Rehab strat. | 56 | 64.4% | 54 | 60.67% | 119 | 72.56% | 229 | 67.35% |
| Research | 27 | 31.0% | 20 | 22.47% | 48 | 29.27% | 95 | 27.94% |
| Total | 87 | N/A | 89 | N/A | 164 | N/A | 340 | N/A |

| Priorities by Gender | Female | | | Male | | |
|-------------------------|------------|------------|------------|------------|------------|------------|
| | Count | % | Rank | Count | % | Rank |
| Development of Voids | 57 | 42.9% | 4 | 105 | 51.5% | 3 |
| Water Quality | 72 | 54.1% | 3 | 115 | 56.4% | 2 |
| Air Quality | 77 | 57.9% | 2 | 92 | 45.1% | 4 |
| Noise reduction | 26 | 19.6% | 6 | 41 | 20.1% | 6 |
| Rehabilitation strategy | 92 | 69.2% | 1 | 133 | 65.2% | 1 |
| Research | 38 | 28.6% | 5 | 55 | 27.0% | 5 |
| Total | 133 | N/A | N/A | 204 | N/A | N/A |

| Priorities by Age | 39 or younger | | | 40 to 59 | | | 60 or older | | |
|-------------------|---------------|------------|------------|-----------|------------|------------|-------------|------------|------------|
| | Count | % | Rank | Count | % | Rank | Count | % | Rank |
| Voids Develop | 41 | 35.7% | 4 | 49 | 52.7% | 2 | 68 | 61.3% | 3 |
| Water Quality | 49 | 42.6% | 3 | 55 | 59.1% | 1 | 73 | 65.8% | 2 |
| Air Quality | 54 | 47.0% | 2 | 25 | 26.9% | 5 | 57 | 51.4% | 4 |
| Noise reduce | 21 | 18.3% | 6 | 17 | 18.3% | 6 | 29 | 26.1% | 6 |
| Rehab strat. | 74 | 64.4% | 1 | 31 | 33.3% | 3 | 76 | 68.5% | 1 |
| Research | 26 | 22.6% | 5 | 26 | 28.0% | 4 | 36 | 32.4% | 5 |
| Total | 115 | N/A | N/A | 93 | N/A | N/A | 111 | N/A | N/A |

| Priorities by Location | Upper Hunter | | Lower Hunter | | Other Hunter | | Rest of NSW | |
|------------------------|--------------|------------|--------------|------------|--------------|------------|-------------|------------|
| | Count | % | Count | % | Count | % | Count | % |
| Voids Develop | 51 | 51.0% | 53 | 51.0% | 34 | 53.1% | 24 | 35.8% |
| Water Quality | 55 | 55.0% | 61 | 58.7% | 31 | 48.4% | 40 | 59.7% |
| Air Quality | 67 | 67.0% | 46 | 44.2% | 33 | 51.6% | 23 | 34.3% |
| Noise reduce | 27 | 27.0% | 19 | 18.3% | 11 | 17.2% | 9 | 13.4% |
| Rehab strat. | 74 | 74.0% | 68 | 65.4% | 43 | 67.2% | 41 | 61.2% |
| Research | 30 | 30.0% | 28 | 26.9% | 21 | 32.8% | 16 | 23.9% |
| Total | 100 | N/A | 104 | N/A | 64 | N/A | 67 | N/A |

Benefits, Coexistence, and Beneficial Reuse of Voids

| Benefits - multiple answers per response | 2019 | 2019 | 2018 | 2018 | 2017 | 2017 | 2016 | 2016 | Total | Total |
|--|-----------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| Jobs/Employment | 65 | 73.0% | 64 | 69.6% | 112 | 65.9% | 129 | 72.6% | 370 | 70.1% |
| Economy/Income | 28 | 31.5% | 22 | 23.9% | 63 | 37.1% | 54 | 30.5% | 167 | 31.6% |
| Support/sponsorship | 21 | 23.6% | 21 | 22.8% | 30 | 17.7% | 27 | 15.3% | 99 | 18.8% |
| Infrastructure/Growth | 11 | 12.4% | 15 | 16.3% | 20 | 11.8% | 19 | 10.7% | 65 | 12.3% |
| Energy/Resources | 5 | 5.6% | 8 | 8.7% | 14 | 8.2% | 10 | 5.7% | 37 | 7.0% |
| Lifestyle/Cultural | 3 | 3.4% | 3 | 3.3% | 9 | 5.3% | 5 | 2.8% | 20 | 3.8% |
| Rehab/enviro support | 1 | 1.1% | 1 | 1.1% | 7 | 4.1% | 4 | 2.3% | 13 | 2.5% |
| Exports | 2 | 2.3% | 0 | 0.0% | 3 | 1.8% | 3 | 1.7% | 8 | 1.5% |
| Total respondents | 89 | N/A | 92 | N/A | 170 | N/A | 177 | N/A | 528 | N/A |

| Coexistence | 2019 | 2019 | 2018 | 2018 | 2017 | 2017 | 2016 | 2016 | Total | Total |
|----------------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| Yes/Positive | 55 | 66.3% | 49 | 56.3% | 91 | 58.3% | 104 | 60.5% | 299 | 60.0% |
| No/Negative | 2 | 2.4% | 5 | 5.8% | 10 | 6.4% | 11 | 6.4% | 28 | 5.6% |
| Unsure/Maybe | 15 | 18.1% | 13 | 14.9% | 18 | 11.5% | 16 | 9.3% | 62 | 12.5% |
| Unrelated/Suggestion | 11 | 13.3% | 20 | 23.0% | 37 | 23.7% | 41 | 23.8% | 109 | 21.9% |
| Total | 83 | 100% | 87 | 100% | 156 | 100% | 172 | 100% | 498 | 100% |

| Voids put to beneficial use | 2019 | 2019 | 2018 | 2018 | 2017 | 2017 | Total | Total |
|-----------------------------|-----------|---------------|-----------|---------------|------------|---------------|------------|---------------|
| | Count | % | Count | % | Count | % | Count | % |
| Yes | 28 | 41.2% | 32 | 39.0% | 73 | 49.7% | 133 | 44.8% |
| Unsure/Maybe | 8 | 11.8% | 11 | 13.4% | 18 | 12.2% | 37 | 12.5% |
| No | 2 | 2.9% | 6 | 7.3% | 7 | 4.8% | 15 | 5.1% |
| Suggestions Only | 30 | 44.1% | 33 | 40.2% | 49 | 33.3% | 112 | 37.7% |
| Total | 68 | 100.0% | 82 | 100.0% | 147 | 100.0% | 297 | 100.0% |

| Suggestions | 2019 | 2018 | 2017 | Total |
|--------------------------------|-------|-------|-------|-------|
| | Count | Count | Count | Count |
| Water storage/Dams/Hydro | 30 | 26 | 46 | 102 |
| Recreation/sports | 16 | 22 | 27 | 65 |
| Landfill/Waste | 14 | 10 | 14 | 38 |
| Native vegetation/habitat | 11 | 4 | 10 | 25 |
| Agriculture/grazing | 8 | 7 | 5 | 20 |
| Parklands/trails | 4 | 4 | 3 | 11 |
| Aquaculture/fish farms | 3 | 0 | 7 | 10 |
| Backfill voids | 2 | 1 | 4 | 7 |
| Commercial/housing development | 2 | 4 | 5 | 11 |
| Research sites/facilities | 0 | 3 | 2 | 5 |

Awareness of Dialogue and Website

| Awareness of Dialogue | 2019 | 2019 | 2018 | 2018 | 2017 | 2017 | 2016 | 2016 | Total | Total |
|-----------------------|-----------|-------------|-----------|-------------|------------|-------------|------------|-------------|------------|-------------|
| | Count | % | Count | % | Count | % | Count | % | Count | % |
| No | 59 | 66.3% | 69 | 75.8% | 101 | 60.8% | 119 | 69.6% | 348 | 67.3% |
| Unsure | 6 | 6.7% | 2 | 2.2% | 11 | 6.6% | 0 | 0.0% | 19 | 3.7% |
| Yes | 24 | 27.0% | 20 | 22.0% | 54 | 32.5% | 52 | 30.4% | 150 | 29.0% |
| Total | 89 | 100% | 91 | 100% | 166 | 100% | 171 | 100% | 517 | 100% |

| Access Dialogue website | 2019 | 2019 | 2018 | 2018 | 2017 | 2017 | Total | Total |
|-------------------------|-----------|---------------|-----------|---------------|------------|---------------|------------|---------------|
| | Count | % | Count | % | Count | % | Count | % |
| No | 85 | 95.5% | 86 | 94.5% | 145 | 89.0% | 316 | 92.1% |
| Unsure | 0 | 0.0% | 2 | 2.2% | 4 | 2.5% | 6 | 1.8% |
| Yes | 4 | 4.5% | 3 | 3.3% | 14 | 8.6% | 21 | 6.1% |
| Total | 89 | 100.0% | 91 | 100.0% | 163 | 100.0% | 343 | 100.0% |

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 27 February 2019**

Agenda Item 8

UPDATE ON OTHER DIALOGUE WORKING GROUPS/COMMITTEES

The Dialogue has several Committees and Working Groups with differing objectives. It is important to share information and knowledge amongst all Dialogue groups where relevant to help inform discussions. Please see below for updates on various Dialogue Working Groups and Committees:

Joint Advisory Steering Committee

The JASC met shortly following the Industry Working Group meetings to discuss the outcomes of both industry and joint working group recommendations. In total 11 clear projects were supported with other actions considered to help fulfil the recommendations provided in the 2018 Forum discussion session feedback.

The Dialogue Chair and Secretariat are working to finalise a new community/business representative for the JASC following recent advertisements across the Upper Hunter media.

The JASC is scheduled to meet next on **Thursday 4 July 2019**.

Communications Working Group

The Communications Working Group has not met since the previous IWG meeting. The CWG is scheduled to meet next on **Tuesday 18 June 2019** to discuss progress made to date on the two projects endorsed by the Steering Committees, which include:

- Continuing STEM Education Program discussions - The Dialogue is continuing its discussions with Regional Development Australia (RDA) Hunter, regarding the introduction of a new Science Technology Engineering and Maths (STEM) program into Upper Hunter schools including utilising the Dialogue's School Mine Tours Program. The discussions with RDA could help facilitate a number of linked project ideas raised at the annual forum including arranging classroom mine personnel visits, utilising and developing VR materials for in-classroom learning, developing in-class teaching material relevant to the NSW school curriculum and improving training support for teachers.
- Continued stakeholder engagement - Over the past few months, the Dialogue has been busy updating Upper Hunter Community Consultative Committees (CCCs) on the Dialogue's work. With the initial round of (CCC) briefings almost complete, the Dialogue is looking to expand its engagement activities including presentations to more general community groups such as Rotary and Lions clubs.

Joint Economic and Social Development Working Group

The Joint Working Group recently met on Wednesday 27 February 2019. The primary discussion, as with all other Dialogue groups was focused on the 2018 Forum Discussion Session outcomes and developing project ideas for 2019.

As a result of the various issues raised, members agreed that the best opportunities for the Dialogue to assist would be through two projects, as outlined below:

- Establishing a Dialogue Procurement Information Hub - Providing direct links to company procurement processes and capacity building information for suppliers, as well as link directly to existing databases, education and training resources.
- Mining procurement business events - Working with local business organisations to develop and promote mining procurement-specific business events for interested parties in both the Muswellbrook and Singleton areas in 2019.

The next Joint Working Group meeting will be held on **Wednesday 12 June 2019** from 1.00 pm to 3:00 pm., following the Joint Environment Working Group meeting.

FOR INFORMATION

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 9

PRESENTATION: BULGA CULTURAL CENTRE (NEVILLE HODKINSON, SINGLETON SHIRE HEALTHY ENVIRONMENT GROUP)

Mr. Hodkinson of the Singleton Shire Healthy Environment Group has provided the Dialogue secretariat with a proposal to support the establishment of a Bulga Cultural Centre.

The proposal form has been submitted as per the request of the Dialogue secretariat to advise of:

- A Background and summary of the key issues that require consideration;
- A description of the Outcomes and/or Benefits being sought for the project; and
- A description of the resources required from the Dialogue to facilitate the project's success.

Please see the attached proposal over the page for more information regarding this matter.

Recommendation:

- **That Working Group members discuss the proposal and advise the Dialogue secretariat on whether this project is supported.**

FOR DISCUSSION

Attachment: Bulga Cultural Centre Proposal

Upper Hunter Mining Dialogue Application Form for Consideration of Dialogue Project Proposals

Projects brought to the attention of the Upper Hunter Mining Dialogue's (Dialogue) Joint Advisory Steering Committee (JASC) for consideration will need to provide a detailed description of the project's background, a clear outcome being sought, and the resources required to support the proposal. Please note that the Dialogue will not support any sponsorship proposals seeking monetary support. Any sponsorship proposals are to be directed to the NSW Minerals Council.

Background / Key Issue(s)

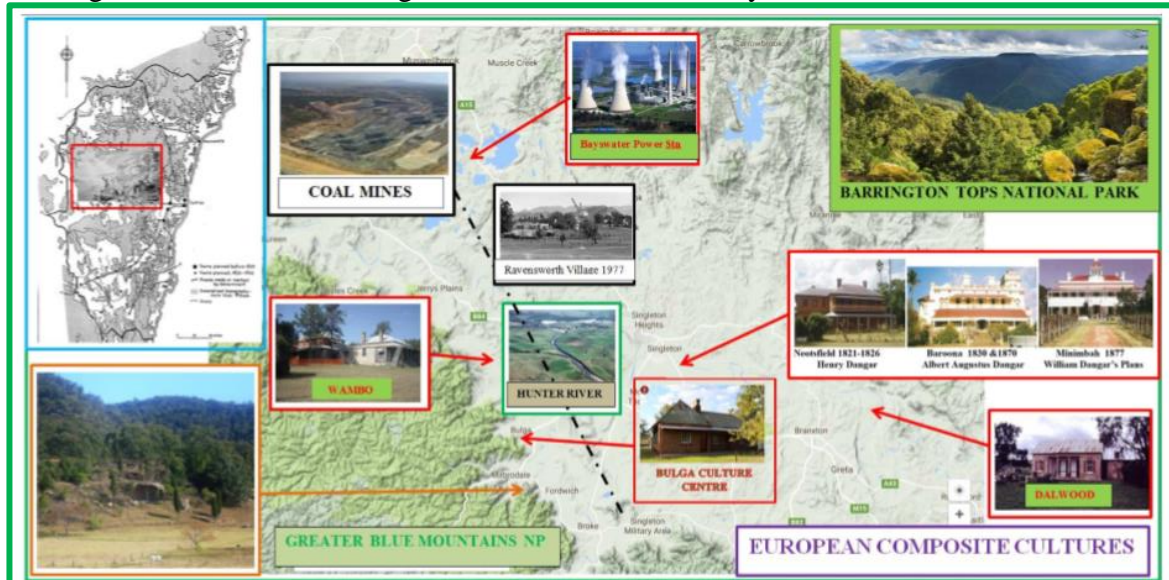
Provide a brief description of the project, outlining the key issue or problem to be addressed. Detail how the project relates to the Dialogue's primary objective to address cumulative impacts of mining.

Submitted by Dr Neville Hodkinson PhD 17th March 2019

Community is seeking proactive support of NSW Minerals Council and Mining Dialogue to establish a Tourism Hub Dialogue Project based upon the four Phase twenty year Plan outlined in June 2016 for the Community Heritage Advisory Group established in 2012 by Rio Tinto. Of the Four Phases outlined, the first two Cultural Heritage Phases have progressed to detailing and scheduling for implementation. While Phase 3 "European Composition Culture" and Phase 4 "Future Tourism Vision" are the type of Tourism Projects that are now integrally interwoven with other Hunter Valley Strategic Planning and Mining cumulative impacts.

This Tourism Hub aims to perpetuate employment opportunities for future generations that focuses upon a State Significance Conservation Area which would enhance and further showcase Mining into the future as an integral entity within the Aboriginal, Colonial and Convict cultural heritage Significance of the Hunter Valley.

By way of illustration the Phase 3 Map "European Composite Cultures" identifies the 2020 Tourism Hub Vision of the here and now in the Hunter Valley, illustrating much of the information that is locked away from view in storage; much related to Mining investigations since 1980, alongside Reserves, Biodiversity and Conservation Areas.



The Upper Hunter Mining Dialogue is ideally positioned as its membership encompasses State and Local Governments, Minerals Council, Chamber of Commerce and Community Groups that provide the mix of opinions, Strategies and Resources needed.

This Tourism Holistic Vision aims also to integrate existing and future land use detailing across the five Mine owned Lands throughout the "Cockfighters Valley Precinct".

Outcomes / Benefits

Provide a brief description of the goals, objectives and outcomes being sought for the project, including how this will benefit the Dialogue and the Upper Hunter community. E.g. seeking Dialogue support for an existing project, or to pursue a project through the Working Groups.

- ✓ Assembly of Information and the Preparation of a Report to outline the features and detailing of the *“The State Significant Conservation Area – Cockfighters Valley Precinct”* and associated Tourism Hub being the adjunct grasslands North of Greater Blue Mountains National Parks, encompassing the Five Mining Operations along the Hunter River from Jerrys Plains to Broke and Gouldsville.
- ✓ Prepare through the Working Groups and identify Land Tenure features that support and encourage combined Community (Hunter Coal Festivals) and Mining Festivals Tourism Opportunities by way of Synoptic Planning guidelines related to the five Mine currently within the State Significant Conservation area – Cockfighters Valley Precinct along this portion of the Hunter River Environs.
- ✓ Outcome is a Draft *“State Significant Conservation Area – Cockfighters Valley Precinct”* Report of sufficient outline and detail prepared by the Mining Dialogue Project team to a level that the NSW Minerals Council would facilitate support and endorse to Governments on behalf of the Hunter Community.
- ✓ Develop the various options for Public, Private and Community Tourism based opportunities which dovetails Mining Heritage to enhance existing State and local Tourism agencies and facilities, building upon the 200year Cultural Heritage Community initiatives detailed in Attachment 1.
- ✓ Just as the Mine School Tours have gained Community support for the Mining Dialogue then a Dialogue Working Group will bring together Mining and Commerce perspectives of the Holistic Cultural Heritage of past, present and future Employment Opportunities within the framework of the Tourism Hub Precinct. The resultant daily visible presence of Tourism Displays to the standard of Australian National Museum would showcase the Area.
- ✓ The World Health Organisation in 2015 provides the Health benefits outcome significance of Cultural Heritage on Community Health and Well-being:- *“an awareness of cultural contexts allows us to better understand the compounding influences of diverse but interrelated determinants.....While alienation and marginalization are key upstream determinants for any number of illnesses and vulnerabilities, cultural understanding can be a source of health resilience in a rapidly changing world”*.
- ✓ **Cultural heritage** across the Cockfighters Valley Precinct includes tangible **culture** (such as buildings, monuments, landscapes, books, works of art, and artifacts), intangible **culture** (such as folklore, traditions, language, and knowledge), and natural **heritage** (including culturally significant landscapes, and biodiversity)

Resources required

Provide a brief description of the resources required from the Dialogue to facilitate the project's success. For example, time, personnel, target groups. Detail any external financing or in-kind contributions sought.

- **Project Duration:-** Intended as a two year Dialogue Project :
One year of draft preparation, Second year of formal revision and review.

- **Target Groups :-** Dialogue team with the appropriate knowledge is thought to be mostly available from Mining Companies directly, or via their Mine Specialist Consultants.

This Tourism Hub Project in the future can provide local business opportunities to showcase the Schools Mine Tours, Virtual Reality Video Mine Projects, and a Mining Museum foreshadowed in Historic & Cultural Heritage Management Plans on Conservation Areas.

- **Project Extent:-** Project relates directly to the integration of the Colonial Cockfighters Region entity across Milbrodale, Bulga, Warkworth, Lemington, Jerrys Plains, with the Five Mine Cultural Heritage Environs added to detail the State Significant Conservation Area – Cockfighters Valley Precinct and adjoining National Parks incorporating the Hunter River Environs through Archerfield to Gouldsville.
 - Initial Minerals Council and Mining Dialogue requirement for agreement in principle
 - Mapping, Reserves, Conservation Areas, Biodiversity, Cultural Heritage Features
 - Chronology of land use (half century)
 - State Environmental Planning Policy detailing
 - Hunter Post Mining Land use & Synoptic Plan considerations
 - Connects directly with the “*Rehabilitation and Final Land use*” and the Cumulative Health Impacts of “*Air Quality and Emissions and Health*” as well as Rainwater Tank Health in “*Water Quality and Stewardship*”; all themes discussed and detailed at 2018 Annual UHMD Forum Report.
 - Provision for 20 year Tourism Hub Employment facilities

Of the many types of tourism, arguably all countries employ heritage tourism as a method to protect their varying forms of cultural heritage, to establish national identities and grow their economies.

Other information

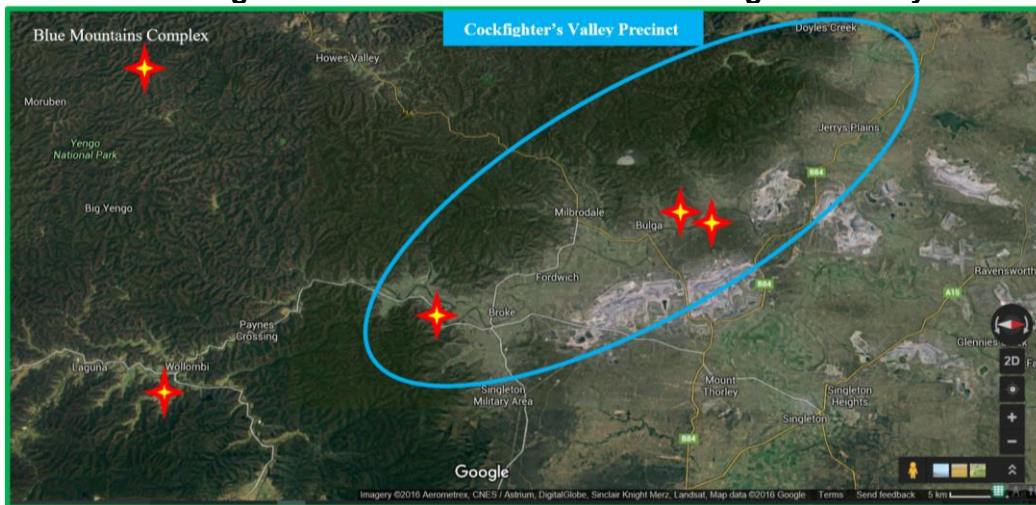
Singleton Shire Health Environment Group focus is on Community Health and well being, and by 2010 identified “Community Health Impacts” from the apprehension of ever approaching Mining to Residents Homes evidenced by Air Pollution, Mine Blasting into the Atmosphere, Mine Dust in Drinking Water Tanks, incesant Mine Noise with disturbed night sleep, alongside Residents reported Disease associations.

SSHEG equates such Social Stress and Harm as Community Health impacts.

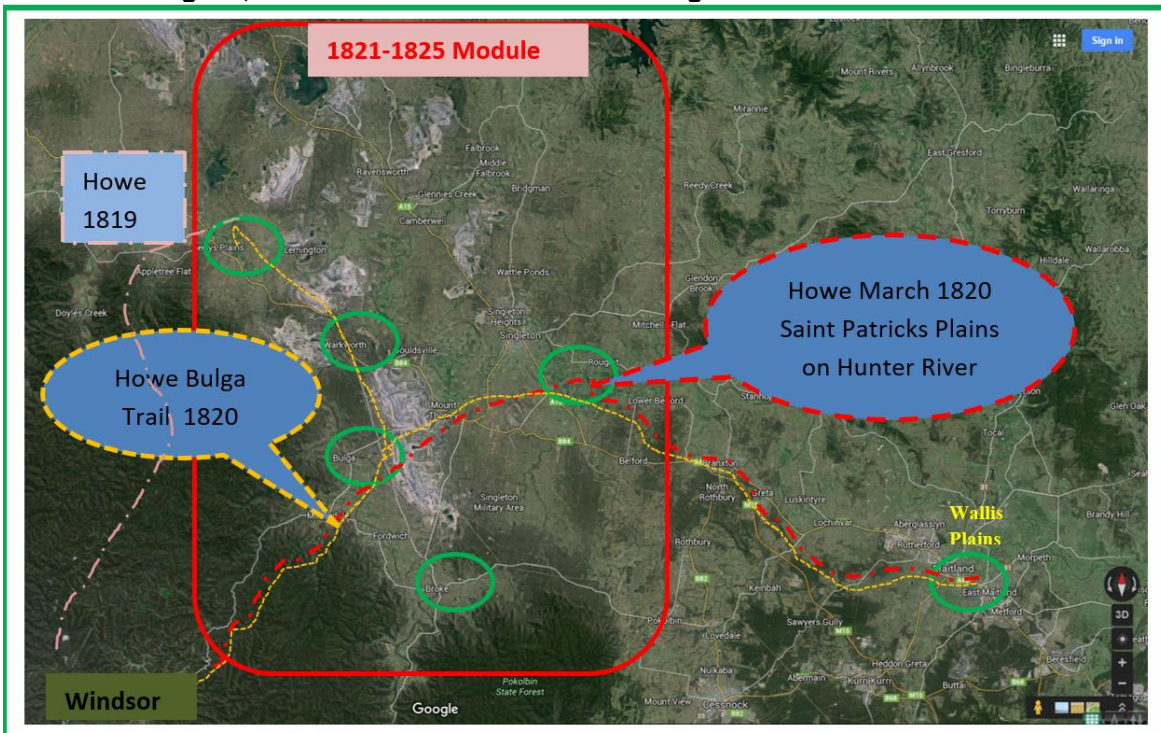
The Community Integrated Cultural Heritage Vision (Attachment 1) prepared in June 2016 entitled “**Holistic Vision of Ancestral Heritage in the Hunter Valley**” **Bulga Culture Centre**” identified and detailed their NSW State Significance.

Extract Illustrations from the June 2016 Document

Phase 3 State Significant Conservation Area – Cockfighters Valley Precinct



Phase 1 Aboriginal, Colonial & Convict Cultural Heritage



**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 10

OTHER BUSINESS

**Upper Hunter Mining Dialogue
Joint Environment Working Group - Wednesday 12 June 2019**

Agenda Item 11

NEXT MEETING / CLOSE

The next Joint Working Group meeting is to be held on **Wednesday 11 September 2019**, 9:00 am to 12:00 pm.

This will be the final JWG meeting prior to the 2019 Annual Forum on Tuesday 19 November 2019, which is to be held at the Singleton Civic Centre.

FOR INFORMATION