

## AGENDA

### Upper Hunter Mining Dialogue

#### Joint Working Group - Emissions and Health Meeting

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

Wednesday 27 June, 2:00 pm to 4:00 pm

Teleconference Details - Dial: 02 8319 9443  
Organizer code: 6761 6443 / Participant code: 8137 8628

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1.	Welcome and Apologies	
2.	Minutes and actions arising of the previous meeting	
3.	Strategic Discussion on Dialogue Objectives	
4.	Upper Hunter Air Quality Education Fact Sheet	<b>Attachments</b>
5.	Update on NSW Government Air Quality Initiatives	
6.	Upper Hunter Air Quality Monitoring Network Update	
7.	Update on communication activities	
8.	Update on current Dialogue projects	
9.	Other Business	
10.	Next Meeting / Meeting Close	

**UHMD Joint Working Group - Emissions and Health  
28 June 2018**

Agenda Item 2

**MINUTES FROM PREVIOUS MEETING**

**DRAFT MINUTES**

**Upper Hunter Mining Dialogue  
Joint Working Group Emissions and Health Meeting**

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

**Wednesday 28 March 2018: 2.00 pm to 4.00pm**

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**In attendance:**

John Watson (Chair)	Glencore
Chris Knight	The Bloomfield Group
Julie Thomas	Muswellbrook Coal
John Campbell	Bengalla Mining Company
Neville Hodgkinson	Singleton Shire Healthy Environment Group
Wendy Bowman	NSW Mine Watch
Matthew Parkinson	AGL
Sarah Roberts	Singleton Council
Bob Mackie	theresource
James Barben	NSW Minerals Council

**Guest**

Mitchell Bennett	NSW Environment Protection Agency
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**Apology**

Karen Marler	NSW Environment Protection Authority
Simon Francis	NSW Department of Primary Industries - Water
Peter Jaeger	Peabody Energy
Sarah Withell	BHP
Mary-Anne Crawford	Singleton Council
Mark Scandrett	Muswellbrook Shire Council
Craig Milton	NSW Minerals Council

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**1. Welcome and apologies**

The Chair welcomed attendees and noted apologies.

**2. Minutes and actions of the previous meeting**

The minutes from the previous meeting were accepted. Mr. Barben provided a brief update on outstanding action items, noting that several are addressed in these papers, or are in progress.

**3. Presentation: Mitch Bennett, NSW EPA, Dust Risk Forecasting Scheme**

Mr. Bennett from the NSW EPA gave an update on the Dust Risk Forecasting Scheme that the EPA has been working on. The presentation was well received, and Mr. Bennett sought feedback on the direction

for the program after outlining the challenges that were experienced in conducting the modelling. The following key points were discussed during the briefing:

- Air quality in the region is generally good with 80-90% of days in Singleton and Muswellbrook being good to very good. This makes it a difficult process to identify the small percentage of days that may be a high risk for dust generation.
- The model is set up to identify a 25 microgram increase in PM10 from Merriwa to Singleton.
- OEH trialled two models over three months.
- The models use weather forecasts as an input which proved problematic in accurate forecasting.
- During the trial period both models accurately predicted a high-risk day once from the four occurrences
- Reasons for the missed predictions included inaccurate weather forecasts, lower than expected production and modelling issues

Mr. Watson advised that the forecasts may complement site specific forecasting information and may be of use to industry in preparing for high risk days.

#### **4. 2017 UHMD Annual Forum Review**

Mr. Barben provided an overview of the outcomes from the 2017 Annual Forum noting the challenge for the UHMD in seeking further community representatives. Generally, the forum was well received, and participants appreciated the updates on the projects.

#### **5. 2018 Strategic Discussion**

Mr. Barben provided an update on the outcomes of the JASC and ISC as noted in the papers. Discussion was then had amongst the JWG members regarding their priorities for the UHMD.

Dr. Hodgkinson advised that he'd like to see the JWG focus on heritage in the Broke / Milbrodale area as a health issue as it relates to a person's sense of place. This included Aboriginal, colonial, and mining heritage with opportunities for this to be incorporated into rehabilitation and tourism potential. Dr. Hodgkinson requested that this be raised with the JASC for discussion.

#### **ACTION**

- **Discuss the potential to add heritage as a health issue to the JWG's remit with the JASC**

#### **6. Upper Hunter Air Quality Education Fact Sheets**

The Fact Sheets were taken as read and feedback was requested by from the JWG by 16 April 2018.

#### **ACTION**

- **Provide any final feedback on the Fact Sheets to the UHMD Secretariat by 16 April 2018**

#### **7. Clearing the Air Video Update**

The final video was played for the Committee. The UHMD Secretariat is working to upload this to the website.

#### **8. Update on NSW Government Air Quality Initiatives**

Mr. Barben and Mr. Watson provided an update on the current NSW Government air quality initiatives including the Clean Air for NSW Plan, North West Air Quality Monitoring Network, Non-Road diesel, load based licensing and Chief Scientist's review of coal train dust. It was noted that many of the initiatives were being worked on by the EPA including conducting regulatory impact assessments and further policy development.

## 9. Upper Hunter Air Quality Monitoring Network Update

Mr. Watson provided an update on the regional Air Quality from the latest EPA quarterly monitoring report noting that the delay in releasing the data was due to diligent OEH data checking processes. Mr. Watson also discussed the monitoring technologies, review of the network locations and some of the anomalous results that were observed.

## 10. Update on communication activities

Mr. Mackie provided an overview of the various communications activities including providing a summary the key findings from the UHMD Community Surveys, with members interested in these findings and how they may be used to improve our engagement.

Mr. Mackie also provided a brief update on the upcoming Coal Festival events that he is coordinating for the local Business Chambers.

## 11. Update on current Dialogue projects

A brief update on current projects was provided by Mr. Barben although much of the content was covered in the prior papers.

## 12. Other Business

Nil

## 13. Next Meeting / Meeting Close

The next meeting dates for 2018 were provided to the working group for reference.

**Meeting closed at 3:35 pm**

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### Actions arising from meeting on UHMD Joint Working Group - Emissions & Health Meeting

Action	Responsibility	Status
<b>Strategic Discussion - Heritage proposal</b>		
Discuss the potential to add heritage as a health issue to the JWG's remit with the JASC	<b>UHMD Secretariat</b>	<b>Completed</b>
<b>Upper Hunter Air Quality Fact Sheets</b>		
Provide any final feedback on the Fact Sheets to the UHMD Secretariat by 16 April 2018	<b>JWG members</b>	<b>Completed</b>

**UHMD Joint Working Group - Emissions and Health**  
**27 June 2018**

Agenda Item 3

**STRATEGIC DISCUSSION ON DIALOGUE OBJECTIVES**

**Issue**

The Upper Hunter Mining Dialogue (UHMD) was established in 2011 in response to community concerns about cumulative impacts of mining, a significant amount has been achieved. Recent feedback from stakeholders has shown concern that the Dialogue is at risk of becoming less relevant and not meeting the expectation of stakeholders.

**Background**

The Dialogue secretariat has prepared the **attached** 'Statement of Dialogue Objectives' to help the Dialogue ensure it stays relevant and meet expectations. In addition to the overarching goal to address the cumulative impacts of mining in the region, for the Dialogue to remain effective it needs to:

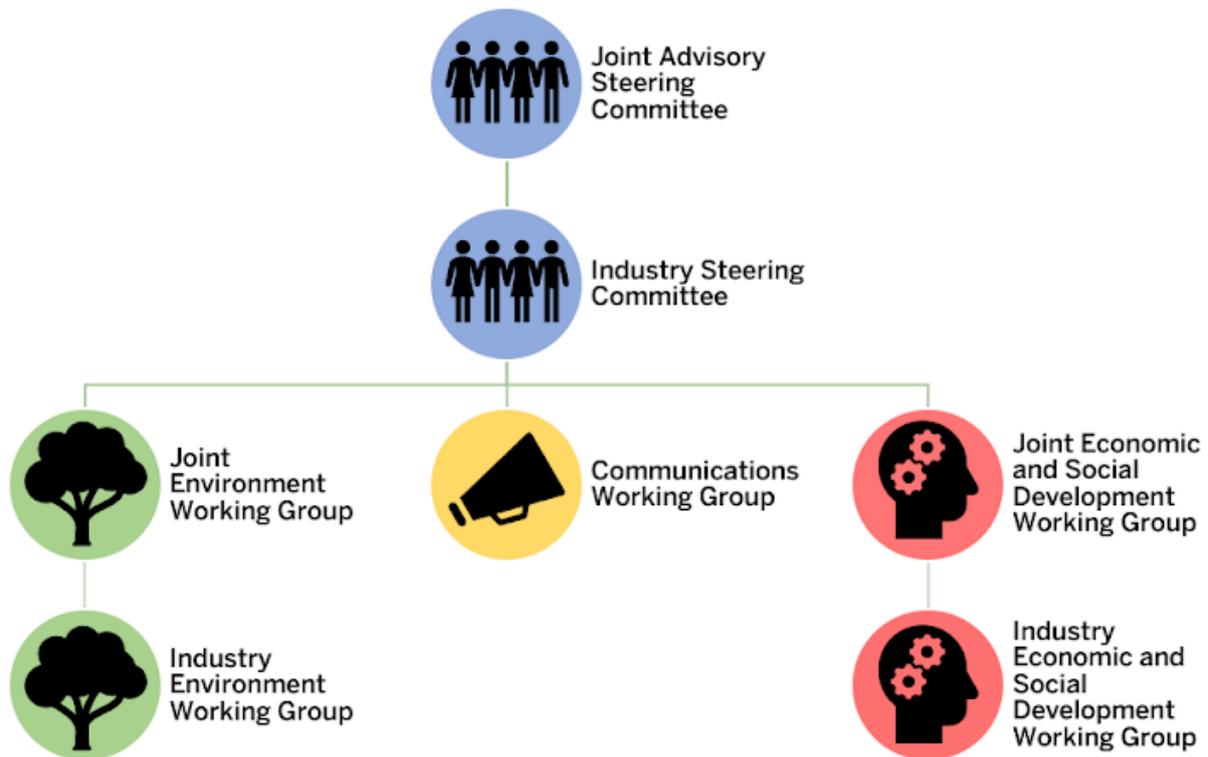
1. Engage with interested and relevant stakeholders across all sectors of the community to ensure that issues of importance can be discussed in an open, balanced, and respectful environment;
2. Facilitate projects that support any key issues raised by members, and which seek to support, maintain, or improve the quality of life for current and future residents;
3. Distribute information on relevant internal and external projects and initiatives to help improve the knowledge and awareness of mining-related matters amongst relevant stakeholders; and
4. Advocate to government and other agencies for action on matters of importance to the Dialogue and the Upper Hunter.

The JASC met on 16 May 2018 to discuss the feedback collected from Dialogue stakeholders at the earlier 2018 meetings, whereby members discussed the changing focus of the Dialogue, noting that while the key themes when the Dialogue was established were still important (i.e. air quality, land management, and water quality), a shift towards long-term planning for a post-mining landscape had occurred and that final land use, economic diversification and the need to focus on more effective communication with stakeholders were fast becoming a priority that the Dialogue needed to focus on.

To support these objectives, JASC and ISC members have endorsed a realignment of the Dialogue Working Groups as per below:

- Combine the existing Joint Working Groups for Land management & Water and Emissions & Health into a single 'Environment' focused group that includes all key environmentally-focused issues (note: this would continue to be supported by the Combined Industry Working Group, which will cover all environment issues - as is currently being done).
- Establish a new Communications Working Group (consisting of industry comms and technical specialists, and relevant community members) to help facilitate the Dialogue's objective to improve our communication and messaging to stakeholders; and
- Establish new Economic and Social Development Working Groups (for Joint and Industry) to focus on supporting projects that will build economic diversification and address other social factors of concern within the Upper Hunter, linking in with work that the local business chambers and councils are doing wherever possible.

A graphic of the proposed realignment of the Working groups is contained on the following page.



**Figure: Proposed realignment of Dialogue Committee and Working Groups.**

Industry and community members will be contacted to seek nominations for the Economic and Social Development Working Groups shortly. Industry membership for the Joint Working Group for the Environment will be comprised of the existing Joint Working Group member for both Land Management & Water and Emissions & Health, with the meeting to be staggered into separate sections enabling members to attend only for their relevant sections if this is desired.

#### **Recommendation**

- **JWG members note the proposed realignment of the Working Groups and provide advice of any potential issues or matters of relevance regarding the formation of the additional Working Groups within the Dialogue.**

**FOR INFORMATION / DISCUSSION**

## Upper Hunter Mining Dialogue Statement of Objectives June 2018

### Background

The Upper Hunter Mining Dialogue (UHMD) was established in 2011 in response to community concerns about cumulative impacts of mining. The UHMD is a collaborative effort that addresses the local community's priorities by understanding its concerns and then working together to develop and implement solutions.

Cumulative impacts of mining were identified throughout the workshops leading to the establishment of the Dialogue, and included the following themes:

1. Social impacts and infrastructure
2. Air quality, emissions and health
3. Water quality
4. Land management

The Dialogue has achieved a significant amount since 2011, as per the table below:

Land Management	Water	Emissions & Health	Social Impacts and Infrastructure / Other
<ul style="list-style-type: none"> <li>● Grazing Trials</li> <li>● Synoptic Plan Review</li> <li>● Rehabilitation Reporting and Principles</li> </ul>	<ul style="list-style-type: none"> <li>● Hunter River Water Quality Study</li> <li>● Annual Water Accounting Framework</li> </ul>	<ul style="list-style-type: none"> <li>● Clearing The Air video</li> <li>● Weather Forecasting project</li> <li>● Air Quality communications</li> </ul>	<ul style="list-style-type: none"> <li>● Social Housing Impact Study</li> <li>● Community research</li> <li>● School Mine Tours Program</li> </ul>

The theme for Social Impacts and Infrastructure was discontinued following the development of a number of research projects that addressed the specific community concerns raised at that time and the general downturn in the mining industry. A number of additional adjustments to the Dialogue's working groups and committees was made through a restructure in 2017, which has enhanced the efficiency and productivity of the Dialogue.

### Current recognition of the Dialogue (Strengths and Weaknesses)

The Dialogue receives a substantial amount of feedback each year through regular evaluation, which helps guide the Dialogue's priorities and how we should operate. This feedback has been summarised in the following

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>● Enables different stakeholders to come together to raise and discuss issues in an open, respectful environment.</li> <li>● Turns ideas into practical outcomes through developing projects to address identified issues.</li> <li>● Well regarded by government stakeholders as a valuable community liaison tool in the Upper Hunter</li> </ul>	<ul style="list-style-type: none"> <li>● Low awareness of Dialogue activities</li> <li>● May not be relevant to the concerns of the current Upper Hunter community</li> <li>● May not be seen to be achieving enough</li> <li>● May be seen as too insular and not enough varied involvement from stakeholders</li> </ul>

## Changing focus of the Dialogue

While the themes identified in 2011 (i.e. air quality, land management, and water quality) remain relevant to the Upper Hunter communities today, the Dialogue has been actively involved in major projects to address these issues and provide information to stakeholders. In recent years, Dialogue members have noticed a shift towards long-term planning for a post-mining landscape, including:

- **Future Land Use** - As many of the Upper Hunter operations progress towards the closure phase, there is an increasing concern of the long-term impacts from mining, taking into account the rehabilitation and development of voids and landscapes in the region. This has supported the Dialogue's advocacy for a Synoptic Plan review that provides the Upper Hunter with a vision for how rehabilitated mine land could be used beneficially post-mining.
- **Economic diversification and social factors** - The Dialogue is increasingly looking at opportunities for economic diversification in the Upper Hunter. Mining will be a large part of the region for the foreseeable future, however it is important that other economic opportunities be explored and considered to build resilience in mining communities and reduce any impacts of the potentially volatile and cyclical nature of industry that may be experienced. The Dialogue could play an active role in facilitating local enterprises given this is largely in line with the objective to support mining communities.
- **A greater focus on communications activities** - The Dialogue is developing targeted communications projects to highlight the key projects that have recently been undertaken to address issues that members have raised. It is important to sell these messages to our stakeholders as one of the Dialogue's main criticisms is that despite great outcomes being achieved, nobody knows much about it. Some members have suggested the Dialogue could benefit from a realignment of the working groups to be focused on a particular skill or function (i.e. Strategy, Projects, and Communications), rather than the environmental themes identified.

## What are the Dialogue's key objectives?

The NSW Minerals Council provides a list of strategic objectives, one of which relates to supporting mining communities, with a specific action to: 'Ensure the Upper Hunter Mining Dialogue is relevant and meets expectations'.

In order to stay relevant and meet the community's expectations, the Dialogue needs to continue to be a collaborative effort between industry and the community that addresses the cumulative impacts of mining, by understanding the local community's concerns, and working together to prioritise, develop and implement solutions. To help with this key objective, the Dialogue should also aim to:

1. Engage with interested and relevant stakeholders across all sectors of the community to ensure that issues of importance can be discussed in an open, balanced and respectful environment.
2. Facilitate projects that support any key issues raised by members, and which seek to support, maintain or improve the quality of life for current and future residents; and
3. Distribute information on relevant internal and external projects and initiatives to help improve the knowledge and awareness of mining-related matters amongst relevant stakeholders.
4. Advocate to government and other agencies for action on matters of importance to the Dialogue and the Upper Hunter.

## How do we achieve these objectives?

Solutions	Actions	Tools/Resources
Listen to stakeholders	Provide various opportunities to actively engage with the community and targeted stakeholders, to find out what their key issues or concerns are, and whether these align with the Dialogue's current priorities. Ensure Dialogue's continued attendance at key Upper Hunter community events.	Community engagement plan, Attendance at major community events
Communicate to stakeholders	Promoting Dialogue achievements, research findings and initiatives through a variety of methods. Key actions are to upgrade the website, and establish a social media presence.	Dialogue Communications Plan 2018, News articles on Dialogue website and external media (radio, tv, print), Social media
Be honest, transparent and responsive	Direct stakeholders to the Dialogue website, which is to be regularly updated with internal content, and links to external information (i.e. government). Actively encourage community groups to engage with the Dialogue and seek information if they are unable to source it.	Dialogue website, Attendance at major community events, Community Surveys.
Collaborate with relevant stakeholders	Liaise with relevant local and state government agencies, and business, environmental and interest groups to ensure the Dialogue has the appropriate representatives involved and continues to be regarded as one of the key community stakeholders in the Upper Hunter.	Regular meetings with key local and state government agencies, academic and research organisations, and major business, community, environment and industry groups in the region.
Meet community expectations	Regularly measure and evaluate the Dialogue's ability to meet expectations through feedback gained from discussions and satisfaction surveys.	Annual Forum, regular discussions with Working Groups on the Dialogue's performance, Surveys following events and at community shows.

**UHMD Joint Working Group - Emissions and Health  
27 June 2018**

Agenda Item 4

**UPPER HUNTER AIR QUALITY FACT SHEETS**

**Issue:**

In early 2017, the Joint Working Group identified an opportunity to collate Upper Hunter air quality information in the form of a fact sheet to provide to the community and other stakeholders for use.

**Background:**

At the March 2018 Joint Working Group - Emissions and Health meeting, members were presented with a revised draft of the Upper Hunter Air Quality fact sheets, which had been split into two related documents:

- One focusing on explaining issues of air quality and PM emissions;
- One focusing on the actions and initiatives to improve air quality and reduce impacts.

These resources, as well as the Clearing the Air video, have been produced to help provide readily accessible information regarding air quality in the Upper Hunter, and will soon be published on the Dialogue website for use distribution across the Dialogue network.

Please find **attached** a final version of the fact sheets for reference. Members are welcomed to provide any feedback regarding the fact sheets, which may be updated as new information or initiatives are developed in the future.

**FOR INFORMATION**

**Attachment: Upper Hunter Air Quality fact sheets**

# AIR QUALITY

## What is particulate matter and why is it important?

### AN UPPER HUNTER MINING DIALOGUE FACT SHEET

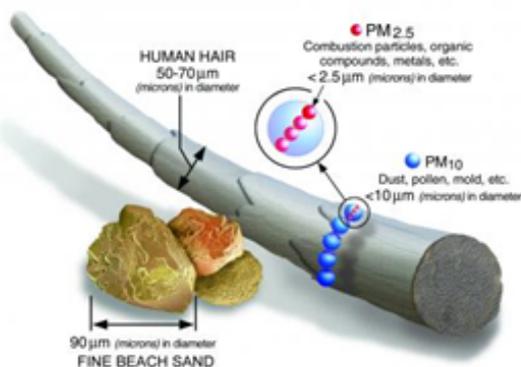


Figure 1: Comparison of particulate matter with other fine particles such as beach sand and human hair.



## Upper Hunter Mining Dialogue

## Introduction

Dust emissions from mining activities can be a serious issue if not closely monitored and effectively controlled. The NSW mining industry works very hard to meet the consistently high air quality standard that the NSW Government sets to preserve the health and safety of the communities in which mining operates.

Various government and industry initiatives contribute to NSW having air quality that is considered good by world standards and is generally comparable with other Australian jurisdictions.[1]

This fact sheet contains information regarding air quality in the Upper Hunter and outlines what particulate matter is and why it is important that it be managed effectively.

## Air Quality and Particulate Matter

Air quality relates to the level of pollution that is in the air that we breathe. One component of air quality is the amount and size of particulate matter suspended in the air, known as PM. PM is the primary air pollutant associated with mining activities.

PM particles may be classified on the basis of their size as either:

- PM10: Inhalable particles measuring less than 10 microns in diameter; or
- PM2.5: Fine inhalable particles measuring less than 2.5 microns in diameter.[2]

The following infographic demonstrates the size of PM10 and PM2.5 particles compared to an average human hair, which can be up to 30 times larger than the largest fine PM2.5 particle.[3]

There are a number of emissions sources that generate fine particles. These include dust from mining operations, power stations, on-road vehicles, non-road diesel equipment, wood heaters, bushfires and hazard reduction burns, sea salt and biogenic sources, which may have varying impacts on air quality.

It is important that air quality is managed effectively as particle pollution can be harmful to human health. A 2015 report from the NSW Environment Protection Agency (EPA) and NSW Health found that fine particles (PM2.5) are more detrimental to health and have a wider range of health effects than larger particles.[4]

Meteorological conditions may also slow down the removal of pollutants, which can impact visibility or reduce the amenity of landscapes.

## Particulate matter in the Upper Hunter

Particulate matter is measured across the Upper Hunter through the Upper Hunter Air Quality Monitoring Network.

PM2.5, or fine particles, are measured at Singleton, Camberwell and Muswellbrook. While Singleton and Camberwell have generally met the national air quality standard, Muswellbrook has exceeded the standard every year since monitoring began in 2011.

The Upper Hunter Valley Particle Characterisation Study [5] conducted by CSIRO showed that dust from sources such as mining, and agriculture contributed an average of 11-12% of PM2.5 particles at Muswellbrook, while wood smoke contributed 30% of PM2.5. Only five percent of dust generated from mine sites are PM2.5 particles.[6]

In the 2015 review of data, the Office of Environment and Heritage stated, "Annual average PM2.5 levels were above the standard at Muswellbrook, where smoke from domestic wood heaters contributes significantly to particle levels". The EPA has prepared community advice regarding wood smoke pollution, available [here](#).

PM10 or coarse particles, are measured at fourteen locations across the Upper Hunter. Most of dust generated at mine sites are PM10 particles and are associated with amenity impacts in the Upper Hunter such as visible dust in the air, or on items such as clothing or property.

While PM10 particles do not have as significant a health impact as PM2.5 particles, the mining industry recognises that this is a priority area that needs to be focused on. Mining operations in the Upper Hunter are working collectively to reduce all PM emissions generated through mining activity and to manage any impacts should they arise.

## Further information

The NSW Department of Health has more information regarding particulate matter and health effects [here](#).

For more information regarding industry actions to improve air quality and manage impacts, please click [here](#).

For more information about the Dialogue and how you can get involved, visit: [www.miningdialogue.com.au](http://www.miningdialogue.com.au)

## References

[1] NSW Office of Environment and Heritage, Clean Air for NSW discussion paper (2017)  
<http://www.environment.nsw.gov.au/research-and-publications/publications-search/clean-air-for-nsw-consultation-paper>

[2] NSW EPA, Managing particles and improving air quality in NSW (2013)  
<http://www.epa.nsw.gov.au/publications/air/manage-particles-improve-air-quality-130784>

[3] US EPA, Particulate Matter (PM) Basics (2016)  
<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

[4] NSW EPA, Health impacts of particulate matter (2017)  
<http://www.epa.nsw.gov.au/your-environment/air/air-nsw-overview/managing-particle-pollution>

[5] NSW Office of Environment and Heritage, Upper Hunter Dine Particle Characterisation Study (2017)  
<http://www.environment.nsw.gov.au/topics/air/research/previous-research/upper-hunter-fine-particle-characterisation-study>

[6] NSW Health, Mine Dust and You (2017)  
<http://www.health.nsw.gov.au/environment/factsheets/Pages/mine-dust.aspx>



**Upper Hunter  
Mining Dialogue**

# AIR QUALITY

## Actions to improve air quality and manage impacts

### AN UPPER HUNTER MINING DIALOGUE FACT SHEET



Figure 1: Dust management at an Upper Hunter mine site.



## Upper Hunter Mining Dialogue

### Introduction

Dust emissions from mining activities can be a serious issue if not closely monitored and effectively controlled. The NSW mining industry works very hard to meet the consistently high air quality standard that the NSW Government sets to preserve the health and safety of the communities in which mining operates.

Various government and industry initiatives contribute to NSW having air quality that is considered good by world standards and is generally comparable with other Australian jurisdictions.[1]

This fact sheet contains information on the key actions that the NSW Government and mining operations in the Upper Hunter are undertaking to ensure that emissions are minimised wherever possible, and should air quality issues arise, that they are effectively managed.

### The Upper Hunter Air Quality Monitoring Network

The Upper Hunter Air Quality Monitoring Network is an industry funded and government managed real time ambient air quality monitoring network, operated independently by the Office of Environment and Heritage (OEH), and administered by the NSW Environment Protection Authority (EPA).

The Upper Hunter is the most densely monitored region in NSW relative to its size. The network includes fourteen air quality monitoring stations in strategic locations around Upper Hunter mining areas and populated centres, including Muswellbrook and Singleton, that provide publicly available, real-time information about air quality across the region, helping to inform air quality management strategies. Each mine operates an extensive network of monitoring stations in and around each operation that provides up to date data in real time.

A map of the network's monitoring sites is available [here](#). The map displays a rolling 24-hour average for PM10 and PM2.5 results, while numbers for NO2, SO2, wind speed

and wind direction values are hourly averaged data. All readings are updated hourly.

OEH publishes regular seasonal updates of the results of the Upper Hunter Air Quality Monitoring Network. Upper Hunter air quality has been classified as generally good over ten successive reports from Autumn 2015 to Winter 2017. Detailed Air Quality Monitoring results and seasonal updates are available [here](#).

## Upper Hunter Dust Risk Forecast Scheme

OEH and the EPA collaborated to develop a dust risk forecast scheme for the Upper Hunter to support actions by mines to reduce dust from operations in adverse weather conditions.

The scheme is designed to identify weather conditions that cause dust emissions from within the Upper Hunter Valley to be the dominant contributor to higher particle (PM10) concentrations in major town centres such as in Singleton. A trial was undertaken with mining operations in the Upper Hunter in Spring 2017, and the results are being analysed to evaluate the skill of the forecast scheme.

## Industry actions to reduce air quality impacts

Minimising dust is a part of daily work procedures at Upper Hunter mines and is the responsibility of all mine workers. Effective air quality management begins with the way a mine is designed, and continues into its operational management, right up to the end of its life through rehabilitation.

Mining operations in the Upper Hunter have adopted the consistent use of weather forecasting information to reduce or avoid air quality impacts. By planning ahead and making better informed decisions about managing air quality at their operations, sites can determine if adverse conditions are forecast, and implement appropriate measures to minimise the impact, including:

- Postponing blasting to avoid unfavourable wind conditions;
- Closing elevated exposed working areas, and operating only at lower levels;
- Limiting traffic to main haul roads;
- Wetting dry areas by using water carts;
- Reducing vehicle speeds to minimise wheel generated dust; and if necessary,
- Ceasing all operations until conditions improve.

Following the NSW EPA's introduction of legally binding Pollution Reduction Programs on coal mines throughout NSW in 2013, all coal mines

are now controlling at least 80% or more of their dust emissions from dirt haul roads (a major source of potential dust emissions from mining operations).

Mining operations in the Upper Hunter are also improving their management of coal train dust along the rail corridor by avoiding overfilling and spillage of coal during loading, developing clean up procedures for coal deposited on the outside of wagons, and reviewing wagon door maintenance procedures.

## Community engagement through the Upper Hunter Mining Dialogue

The Upper Hunter Mining Dialogue works with community stakeholders in the Upper Hunter to address the cumulative impacts of mining in the region, including air quality. Various members of the community, business, local government and industry are involved in the Dialogue and work together to address any issues that are raised within mining communities regarding air quality, through our Emissions and Health projects and working groups.

Key projects the Dialogue has implemented since its establishment in 2011 include a weather forecasting tool that enables operations to anticipate adverse weather conditions and take steps to prepare their operations to minimise dust; development of a community education video titled 'Clearing the Air' demonstrating the actions taken on a mine site to minimise dust emissions; and working to update the Mine Dust & You Fact Sheet with NSW Health.

## Further information

For information regarding air quality in the Upper Hunter and why it is important that it be managed effectively, please click [here](#).

For more information about the Dialogue and how you can get involved, visit: [www.miningdialogue.com.au](http://www.miningdialogue.com.au)

## References

[1] NSW Office of Environment and Heritage, Clean Air for NSW discussion paper (2017) <http://www.environment.nsw.gov.au/research-and-publications/publications-search/clean-air-for-nsw-consultation-paper>



# Upper Hunter Mining Dialogue

**UHMD Joint Working Group - Emissions and Health  
27 June 2018**

Agenda Item 5

**UPDATE ON NSW GOVERNMENT AIR QUALITY INITIATIVES**

**Issue**

A variety of air quality initiatives are underway across NSW.

**Background**

The NSW Government is currently considering the next steps for several air quality initiatives, including:

- Clean Air for NSW
- Non-road diesel
- Load Based Licensing (LBL) Scheme Review
- Chief Scientist's review of coal train dust

The JWG will be notified of any developments as these initiatives progress.

***North West Air Quality Monitoring Network***

Two new air quality monitoring stations have been constructed in Gunnedah and Narrabri and began publicly reporting real-time data in December 2017. The network provides scientific, timely information to the community about air quality in the region. The addition of further monitoring stations to the network will be considered through the Namoi Regional Air Quality Advisory Committee, with the EPA recently calling for nominations throughout February 2018.

Nominations were sought from an officer responsible for environmental management for each of Narrabri, Gunnedah and Liverpool Plains Shire Councils; a person representing the community's environmental interests in each of Narrabri, Gunnedah, and Liverpool Plains local government areas, an indigenous community representative for the Namoi region, a Hunter New England Population Health representative, a NSW Department of Planning and Environment representative, three Namoi region mining company representative with a presence in the region, and a local NSW Farmers Association representative. No public advice regarding appointments has been made available yet.

**FOR INFORMATION / DISCUSSION**

**UHMD Joint Working Group - Emissions and Health  
27 June 2018**

Agenda Item 6

**UPPER HUNTER AIR QUALITY MONITORING NETWORK UPDATE**

**Issue**

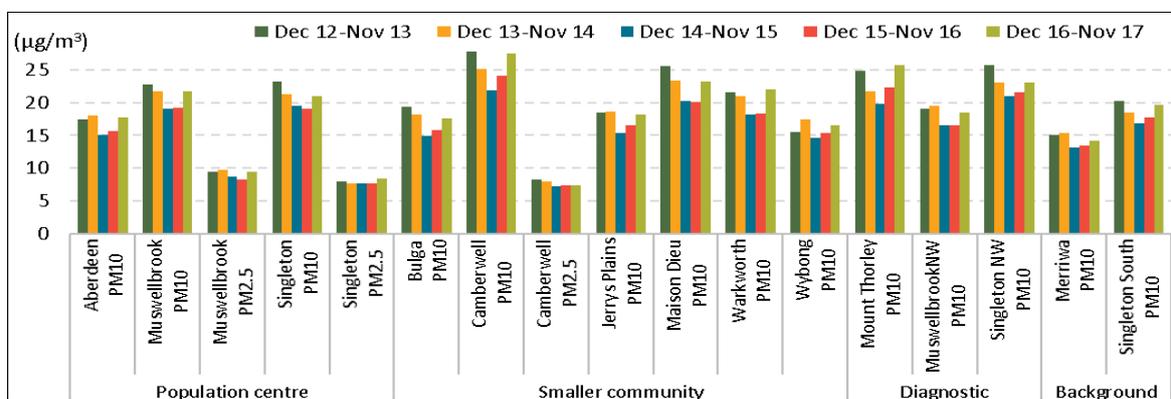
The Upper Hunter Air Quality Monitoring Network (UHAQMN) regularly provides high-quality, regional air quality monitoring information on the Upper Hunter.

**Background**

**Spring 2017 Update**

The Spring 2017 update for the Upper Hunter Air Quality Monitoring Network was published on 23 March 2018. The report factors in Upper Hunter air quality for 1 September to 31 November 2017 and found that Upper Hunter air quality was generally good. Other items to note from this seasonal report include:

- Levels of fine particulate matter PM<sup>2.5</sup> (particles less than or equal to 2.5 microns in diameter), nitrogen dioxide (NO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>) were below national benchmark concentrations.
- Daily average levels of PM<sup>10</sup> (particles less than or equal to 10 microns in diameter) were above the 50 µg/m<sup>3</sup> benchmark on 16 days (3–5, 11–13, 19, 22–25, 27–30 September and 30 October). Regional maximum daily PM<sup>10</sup> levels on these days ranged from 51.0 to 101.5 µg/m<sup>3</sup>.
  - Elevated levels were mainly measured in the south-east. Jerrys Plains and Wybong each recorded one day over the benchmark, two days at Singleton South, three days at Singleton, six days at Maison Dieu and Singleton NW, 11 days at Mount Thorley and 13 days at Camberwell.
  - There were no days over the benchmark at Muswellbrook and Aberdeen larger population sites.
  - The elevated PM<sup>10</sup> particle levels occurred under moderate to fresh north-westerly winds on half these days (3–5, 13, 19, 23–25 September). North-westerly winds combined with dry conditions often results in elevated PM<sup>10</sup> levels in the south-east during spring, due to the generation and transport of dust through the valley. On the weekend of 23–24 September, many sites in the NSW air quality monitoring network recorded elevated PM<sup>10</sup> levels, with modelling showing that the Upper Hunter region was also impacted by a combination of desert dust and fires.
  - On 11–12 September, a large hay bale fire at Mount Thorley may have added to PM<sup>10</sup> levels.
- The Upper Hunter received below average rainfall (lower than the previous two springs) and above average temperatures. Following a dry winter, September rainfall was very much below average. The Bureau of Meteorology reported NSW had the driest September on record. This prolonged dry period contributed to increased dust particle levels compared with the previous two spring seasons.



**Figure 1: PM10 and PM2.5 rolling annual averages to the end of spring: 2013 to 2017**

A Summer 2017/18 update is expected to be provided by the end of June 2018. The full seasonal update can also be viewed here:

<http://www.environment.nsw.gov.au/research-and-publications/publications-search/air-quality-monitoring-network-upper-hunter-spring-2017>

**FOR INFORMATION / DISCUSSION**

**UHMD Joint Working Group - Emissions and Health**  
**27 June 2018**

Agenda Item 7

**UPDATE ON COMMUNICATIONS ACTIVITIES**

**Issue**

The Upper Hunter Mining Dialogue continues to focus on several communication priorities in 2018.

**Background**

Please see below for an update on key activities:

**A. General Communications Update**

The Upper Hunter Mining Dialogue has had a busy start to 2018 in terms of communications activities. Key activities since the March meeting of the Joint Working Group include:

*Media/communication plans:*

- Attendance at four community events which collected a total of 78 surveys and involved a total of 192 interactions with people interested in the Dialogue. Events attended were the BHP Family Day at Muswellbrook Race Club on March 10 which collected 9 surveys from 20 interactions; Upper Hunter Show, March 16-17 (9 surveys from 20 interactions); Hunter Coal Festival's Singleton Community Day, April 7 (19 surveys/47 interactions) and Tocal Field Days, May 4-6 which was its usual busy event, drawing 41 surveys from 105 interactions
- The Dialogue expanded its display for the Hunter Coal Festival's Singleton Community Day to include a stronger focus on rehabilitation – this focus on rehabilitation is now included in all the Dialogue displays and is in answer to our surveys identifying rehabilitation as the single biggest issue for people completing the surveys. The Dialogue display at the festival was augmented by displays from most of the UHMD's industry partners which also focused on rehabilitation as well as their community involvement and overall operations.
- The Hunter Coal Festival with its messaging of "co-existence, community, innovation and education" also provided a good platform for Dialogue promotion including a presentation by Dialogue Chairman Dave O'Brien at the Mining Leaders Lunch on April 6, a community update on the review of the synoptic plan and rehabilitation regulations on April 13 as well as positive mentions at other festival events, in media articles and radio interviews.
- The 2018 School Mine Tours Program is now well underway. The next four months will see the primary schools' Year 5 students visiting mines followed by the high schools' Year 9 students touring in September, October, and November. All up, we have 29 tours scheduled across 13 sites in 2018. Mine guides for the May – July schedule have been trained to ensure Dialogue messaging is consistent across all tours.
- The communications team is currently developing its new social media plan and a direct community group engagement strategy.
- Work has also started on producing a Dialogue newsletter for June/July.
- The Dialogue has reviewed the website and prepared updates to various components to ensure the information provided is current and relevant for our stakeholders. Members are encouraged to visit [miningdialogue.com.au](http://miningdialogue.com.au) for more information and to review the updates.

*Recent Media:*

As mentioned above, the Dialogue received numerous favourable mentions as part of the Hunter Coal Festival publicity through references in news articles, photos, and radio interviews. In direct articles, Fairfax and @thecoalface provided good coverage to:

- The release of the water accounting project's water usage by mines
- The Dialogue's call for more community representatives
- A lead up article for the focus on rehabilitation as the Singleton Community Day
- An article promoting the Synoptic Plan Review Community update in the Newcastle Herald.
- Ongoing coverage of the school tours program as the schools visit mine sites.

## *Community Engagement:*

Upcoming community events include:

- NSW Mining HSEC Conference August 6-8
- Broke Village Fair September 9
- Singleton Show September 27-28

### **B. Community Engagement Plan**

At the previous meeting, JASC members agreed that the Dialogue would benefit from developing a detailed community engagement plan to help guide the Dialogue's Chair and Secretariat as we attempt to re-engage with several former Dialogue stakeholders. A register of Dialogue stakeholder meetings could also be developed to log these briefings and be used to gauge when to re-engage with these groups in the future.

Please see attached on the following pages, a draft community engagement plan for reference. The Plan details the key stakeholders the Dialogue is seeking to meet with in 2018, who will meet with them, the type of interaction, what resources are needed, and which Dialogue members may be able to assist with the engagement.

The stakeholder engagement plan has been endorsed by both the JASC and ISC, with members committing to assist the secretariat where possible to help facilitate meetings. Of note for industry is the engagement with the various Community Consultative Committees. The Dialogue secretariat is seeking advice from ISC members on how best to engage with the CCCs.

### **C. General mine tours proposal**

The Dialogue receives regular suggestions from stakeholders to initiate a general mine tours program for interested community members. Those providing feedback have noted that there is general lack of knowledge about the mining process within the community, and that mine tours for community members may provide significant value in raising awareness of what actually happens on a mine site.

In addition to the Dialogue's school mine tour program, many Upper Hunter sites have community open days in which site tours are offered, which provide an opportunity for the community to view mine sites.

Developing a general mine tours proposal was not supported by the JASC and ISC, with members noting the substantial commitments that industry already has in addition to the school mine tours program. The Dialogue secretariat will be seeking industry feedback regarding the amount of current and planned site tours to provide an indication on the amount of work already being done in this area. The Committees agreed that this was something the Economics and Social Development Working Groups could explore further.

### **Recommendation**

- **JWG members review the stakeholder engagement plan and provide any suggestions or recommendations that may help the Dialogue secretariat plan engagement in the remainder of 2018.**

### **FOR INFORMATION / DISCUSSION**

**Attachment: Stakeholder Engagement Plan 2018**

## 180627\_UHMD\_Stakeholder Engagement 2018

Stakeholder	Category	When	Who	Method of Engagement	Resources required	Notes
Bulga CCC	CCC	October	Secretariat	Face to face	Short Presentation	David O'Brien to assist
Ravensworth CCC	CCC	September/October	Secretariat	Face to face	Short Presentation	David O'Brien to assist
Liddell CCC	CCC	November	Secretariat	Face to face	Short Presentation	David O'Brien to assist
Mangoola CCC	CCC	August/November	Secretariat	Face to face	Short Presentation	David O'Brien to assist
Mount Owen Complex CC	CCC	September/October	Secretariat	Face to face	Short Presentation	David O'Brien to assist
United CCC	CCC	Septmeber	Secretariat	Face to face	Short Presentation	David O'Brien to assist
MTW CCC	CCC	August/November	Secretariat	Face to face	Short Presentation	Scott Fidler to assist
HVO CCC	CCC	TBC	Secretariat	Face to face	Short Presentation	Scott Fidler to assist
Ashton CCC	CCC	July/October	Secretariat	Face to face	Short Presentation	Scott Fidler to assist
Mt Arthur CCC	CCC	June/September/December	Secretariat	Face to face	Short Presentation	Sarah Withell to assist
Drayton CCC	CCC	June/September/December	Secretariat	Face to face	Short Presentation	Donna McLaughlin to assist
Rixs Creek CCC	CCC	November	Secretariat	Face to face	Short Presentation	Chris Knight to assist
Wambo CCC	CCC	August/December	Secretariat	Face to face	Short Presentation	Merri Bartlett to assist
Muswellbrook Coal CCC	CCC	June/September/December	Secretariat	Face to face	Short Presentation	Julie Thomas to assist
Mount Pleasant CCC	CCC	June/September/December	Secretariat	Face to face	Short Presentation	Ngaire Baker to assist
Bengalla CCC	CCC	August/November	Secretariat	Face to face	Short Presentation	Craig White to assist
Hunter Thoroughbred Breeders Association	Industry Association	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
Hunter Environment Lobby	Environment Group	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
NSW Farmers Association	Industry Association	TBC	Secretariat/Chair/Member	Face to face	Briefing and Presentation	Jim Morgan may assist
Hunter Valley Wine & Tourism Association/Alliance	Industry Association	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
Lock The Gate Alliance	Environment Group	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
Bulga Milbrodale Progress Association	Environment Group	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
Hunter Valley Protection Alliance	Environment Group	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
Singleton Chamber of Commerce	Business	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	Gill Eason may assist
Muswellbrook Chamber of Commerce	Business	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	Gill Eason may assist
Hunter Joint Organisation of Councils	Local Government	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	
Muswellbrook Race Club	Community	TBC	Secretariat/Chair	Face to face	Briefing and Presentation	Sarah Withell may assist
Upper Hunter Shire Council	Local Government	June 2018	Secretariat	Written	Newsletter	
Cessnock City Council	Local Government	June 2018	Secretariat	Written	Newsletter	
Singleton Rotary	Rotary Club	June 2018	Secretariat	Written	Newsletter	
Muswellbrook Rotary	Rotary Club	June 2018	Secretariat	Written	Newsletter	
All schools involved in School Mine Tour Program	Schools	June 2018	Secretariat	Written	Newsletter	
Broke Bulga Landcare Group	Environment Group	June 2018	Secretariat	Written	Newsletter	
Bylong Valley Protection Alliance	Environment Group	June 2018	Secretariat	Written	Newsletter	
Conservation Volunteers Australia	Environment Group	June 2018	Secretariat	Written	Newsletter	
Fauna and Flora International - Australia	Environment Group	June 2018	Secretariat	Written	Newsletter	
Great Eastern Ranges Initiative	Environment Group	June 2018	Secretariat	Written	Newsletter	
Greening Australia NSW	Environment Group	June 2018	Secretariat	Written	Newsletter	

## 180627\_UHMD\_Stakeholder Engagement 2018

Hunter Region Landcare Neterok	Environment Group	June 2018	Secretariat	Written	Newsletter
Merriwa Healthy Environment Group	Environment Group	June 2018	Secretariat	Written	Newsletter
Muscle Creek Landcare	Environment Group	June 2018	Secretariat	Written	Newsletter
Scone Chamber of Commerce and Industry	Business	June 2018	Secretariat	Written	Newsletter
Branxton Greta Chamber of Commerce	Business	June 2018	Secretariat	Written	Newsletter
Cessnock Chamber of Commerce	Business	June 2018	Secretariat	Written	Newsletter
Denman Chamber of Commerce	Business	June 2018	Secretariat	Written	Newsletter
Hunter Business Chamber	Business	June 2018	Secretariat	Written	Newsletter
Hunter Business Enterprise Centre	Business	June 2018	Secretariat	Written	Newsletter
Sparke Helmore Lawyers	Business	June 2018	Secretariat	Written	Newsletter
Gloucester Resources (ACMI Investments)	Industry	June 2018	Secretariat	Written	Newsletter
AGL Macquarie	Industry	June 2018	Secretariat	Written	Newsletter
CFMEU	Union	June 2018	Secretariat	Written	Newsletter
United Mineworkers' Federation of Australia	Union	June 2018	Secretariat	Written	Newsletter
AusIMM	Academia	June 2018	Secretariat	Written	Newsletter
Hunter Valley Research Foundation	Academia	June 2018	Secretariat	Written	Newsletter
Sustainable Minerals Institute	Academia	June 2018	Secretariat	Written	Newsletter
University of Newcastle (NIER, TFI, ICBLU)	Academia	June 2018	Secretariat	Written	Newsletter
Civeo	Development	June 2018	Secretariat	Written	Newsletter
Denman and District Development Association	Development	June 2018	Secretariat	Written	Newsletter
NSW Hunter Development Corporation	Development	June 2018	Secretariat	Written	Newsletter
Regional Development Australia - Hunter	Development	June 2018	Secretariat	Written	Newsletter
Urban Growth NSW	Development	June 2018	Secretariat	Written	Newsletter
Dept of Environment (Cth)	Government Dept	June 2018	Secretariat	Written	Newsletter
Housing NSW	Government Dept	June 2018	Secretariat	Written	Newsletter
Hunter Central Rivers Catchment Mgmt Authority	Government Dept	June 2018	Secretariat	Written	Newsletter
Local Land Services NSW	Government Dept	June 2018	Secretariat	Written	Newsletter
Division of Resources and Geoscience, DPE	Government Dept	June 2018	Secretariat	Written	Newsletter
Resources Regulator	Government Dept	June 2018	Secretariat	Written	Newsletter
NSW Department of Primary Industries & DPI Water	Government Dept	June 2018	Secretariat	Written	Newsletter
NSW EPA	Government Dept	June 2018	Secretariat	Written	Newsletter
NSW HHealth	Government Dept	June 2018	Secretariat	Written	Newsletter
Create NSW (Arts office)	Government Dept	June 2018	Secretariat	Written	Newsletter
NSW Office of Environment & Heritage	Government Dept	June 2018	Secretariat	Written	Newsletter
NSW Office of Water	Government Dept	June 2018	Secretariat	Written	Newsletter
Singleton Argus	Media	June 2018	Secretariat	Written	Newsletter
2NM	Media	June 2018	Secretariat	Written	Newsletter
Muswellbrook Neighbourhood Service	Community	June 2018	Secretariat	Written	Newsletter
Muswellbrook PCYC	Community	June 2018	Secretariat	Written	Newsletter

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Upper Hunter Community Services	Community	June 2018	Secretariat	Written	Newsletter	
Wonnarua Nation Aboriginal Corp	Community	June 2018	Secretariat	Written	Newsletter	

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Agenda Item 8

**UPDATE ON CURRENT DIALOGUE PROJECTS**

**Dialogue projects:**

***Air Quality Communications - Clearing The Air***

The 'Clearing the Air' video has now been uploaded to the Dialogue website in the 'Projects and Information' pages, under a new Emissions & Health project page entitled 'Air Quality Resources' (see link: <http://www.nswmining.com.au/dialogue/latest-projects/emissions-and-health/air-quality-resources>).

The JWG is strongly encouraged to view the video, which has been uploaded to YouTube and can be viewed using the following link: <https://youtu.be/q4TojwxKVRQ>

***Weather Forecasting Project***

No update following Mitchell Bennett's presentation at the March 2018 meeting. The NSW government and the EPA are still considering how to progress the Dust Risk Forecasting Scheme and have received industry and community advice through this working group.

***Upper Hunter Air Quality Fact Sheet***

Please see **Agenda item 4** for more information regarding the air quality fact sheet.

***Update of Mine Dust and You Fact Sheet***

No update.

**FOR INFORMATION**

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Agenda Item 9

**OTHER BUSINESS**

***Synoptic Plan Review Process***

The process to review the Synoptic Plan continues following sustained advocacy from the Upper Hunter Mining Dialogue and the community to ensure that a future integrated land use plan remains a priority for the Upper Hunter region.

Steve Wills from the Department of Premier and Cabinet (DPC) provided a community update on the Synoptic Plan Review in Muswellbrook in mid-April 2018, as part of the Hunter Coal Festival. The update was reasonably well-attended by industry and other key stakeholders, however there was limited community representation. Feedback received from the community and industry called for the DPC to ensure that the review captured the strategic land use planning / post mining landscape.

The JASC and ISC have discussed the apparent lack of progress made to date with the plan review at the May 2018 meetings, noting that there are several competing government priorities such as the Hunter Regional Plan, that were driving the work plan for the government. JASC members encouraged the Dialogue Chair to meet with the DPC to raise these concerns and to suggest improvements to help the review progress.

The Department of Planning and Environment's (DPE) mine rehabilitation visualisation tool has progressed considerably and fulfils many of the goals that the Dialogue has been advocating for the Synoptic Plan review to address. The tool can demonstrate what the Upper Hunter may look like in the future, and what future land uses will be present in the post-mining landscape. Industry members have received a demonstration of the tool, providing several suggestions that DPE have taken on board to help refine the tool and ensure it can be a valuable resource to the community.

A Synoptic Plan Workshop is scheduled for Friday 3 August 2018.

**FOR INFORMATION**

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**NEXT MEETING / MEETING CLOSE**

The next Joint Working Group meeting date is scheduled for **Wednesday 26 September 2018**.