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**AGENDA  
NSW Minerals Council**

**UHMD 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 20 July 2016: 1.00pm - 3.00pm

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1. Welcome and apologies
  2. Minutes and actions of the previous meeting
  3. Update on current projects
  4. Promotion of weather forecasting project
  5. Release of new health impact report about particulate matter in NSW
  6. Other Business

# **DRAFT MINUTES**

**NSW Minerals Council**  
**UHMD – Emissions & Health Joint Working Group**  
UMHD Resource Centre, Singleton Town Square Shopping Centre, Singleton

**Thursday 12 May 2016: 9.30am – 12.30pm**

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**In attendance**

John Watson (Chair)	Glencore
John Hindmarsh	The Bloomfield Group
John Drinan	Singleton Shire Healthy Environment Group
Melinda Hale	Singleton Council
Julie Thomas	Muswellbrook Coal Company Limited
Adam Gilligan	Environment Protection Authority
Bob Mackie	<i>theresource</i>
Matt Parkinson	Bayswater Power Station
Neville Hodgkinson	Singleton Shire Healthy Environment Group
Gerard Gleeson	Rio Tinto
Andrew Rode	NSW Minerals Council

**Apologies**

Digby Short	Ashton Coal
Sarah Withell	BHP Billiton
Greg Sullivan	NSW Minerals Council
Wendy Bowman	NSW Mine Watch
Emma Ridley	Hunter Thoroughbred Breeders Association

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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 of 12 November 2015 were confirmed.

## **3. Update on current projects**

It was suggested that the letter to the Environment Minister regarding the air quality alerts for the Upper Hunter be followed up. It was suggested that if there was no appetite for this in the Upper Hunter, that a broader Hunter based forecast and/or Lower Hunter forecast be considered.

### **ACTION:**

- NSWMC to follow up letter to Environment Minister regarding an air quality alert for the Hunter.

## **4. Mine Dust and You factsheet**

The working group supported updating the *Mine Dust and You* factsheet. It was suggested that NSWMC liaise with Ann-Louise Crotty at the EPA in updating the factsheet, and that an infographic be developed summarising the key points within the factsheet, after it is updated.

It was also suggested that other relevant reading material is referenced in the factsheet, including the particle characterisation studies, and a recently released report on the health impacts of particulate matter, commissioned by NSW Health and the EPA.

It was also acknowledged that this factsheet is relevant to not only Upper Hunter mines, and that therefore mines across NSW should be involved in the update.

### **ACTIONS:**

- NSWMC to consider developing an infographic to summarise the updated factsheet.
- NSWMC to send the 2015 report entitled '*Review of the health impacts of emission sources, types and levels of particulate matter air pollution in ambient air in NSW*' to the working group.
- NSWMC to engage with industry representatives across NSW, in updating the *Mine Dust and You* factsheet.

## **5. Weather forecasting promotional material**

The working group discussed the development of a weather forecasting video.

### **ACTION:**

- *Theresource* to present a draft script / plan for the weather forecasting project video at the next Industry Working Group meeting.

## **6. Rio Tinto MTW environment reporting website**

Gerard Gleeson provided an overview of Mount Thorley Warkworth's new air quality and noise monitoring website, available at:

<http://insite.riotinto.com/>

## **7. UHMD Annual Forum Report**

The working group noted the feedback from the Annual Forum. It was suggested that some standard summary UHMD collateral be available for download from the UHMD website.

### **ACTION:**

- NSWMC to consider developing and uploading standard downloadable UHMD collateral to the UHMD website.

## **8. Update on UHMD communications initiatives and media mentions**

The working group noted the updates to communications initiatives and suggested that the UHMD have a stronger social media presence (particularly through facebook). Sharing stories on sites such as the Singleton & Surrounds Facebook site was specifically recommended.

Melinda Hale noted that Singleton Council often receives queries from school students about mining for their school projects, and that it would be useful for the UHMD to provide some factsheets that summarise some of the key points.

The working group also discussed the Lower Hunter Particle Characterisation and Dust Deposition studies.

Neville Hodkinson tabled a document outlining World Health Assembly outcomes relating to air quality and health.

### **ACTIONS:**

- NSWMC to promote UHMD projects through social media.
- Melinda Hale to discuss mining factsheet needs with NSWMC and/or *theresource*.
- NSWMC to distribute EPA's presentations on the Lower Hunter Particle Characterisation and Dust Deposition studies to the working group.
- NSWMC to distribute the Singleton Shire Healthy Environment Group's document entitled '*World Health Assembly Maps the way forward in 2015*' to the working group.

## **9. EPA Upper Hunter Air Quality Particle Model**

Damon Roddis (Pacific Environment) provided an overview of the Upper Hunter Air Quality Particle Model developed for the EPA.

## **10. Working group performance, relevance and strategic direction**

The working group reflected upon what it had learnt over the past 5 years and considered how and whether priorities and understanding associated with health and air quality had changed over that period.

Some working group members suggested that meeting just once per year would be sufficient.

## **11. Other Business**

Melinda Hale raised a number of activities that Singleton Council supports, that industry or community members could be involved in:

- Assisting with high school grants associated with energy efficiency on 10 June 2016.
- Opportunity for involvement in a community garden at Albion Park to help meet any community service KPIs.
- Being a mentor for high school students in a global environmental congress role play exercise.

**Actions arising from meeting on 12 May 2016  
UHMD Emissions and Health Joint Working Group Meeting**

Action	Responsibility	Status
<b>1. Welcome and Apologies</b>		
<b>2. Minutes and actions of previous meeting</b>		
<b>3. Update on current projects</b>		
<ul style="list-style-type: none"> <li>NSWMC to follow up letter to Environment Minister regarding an air quality alert for the Hunter.</li> </ul>	<b>NSWMC</b>	<b>Completed</b>
<b>4. Mine Dust and You factsheet</b>		
<ul style="list-style-type: none"> <li>NSWMC to consider developing an infographic to summarise the updated factsheet.</li> </ul>	<b>NSWMC</b>	<b>In progress</b>
<ul style="list-style-type: none"> <li>NSWMC to send the 2015 report entitled '<i>Review of the health impacts of emission sources, types and levels of particulate matter air pollution in ambient air in NSW</i>' to the working group.</li> </ul>	<b>NSWMC</b>	<b>Completed</b>
<ul style="list-style-type: none"> <li>NSWMC to engage with industry representatives across NSW, in updating the <i>Mine Dust and You</i> factsheet.</li> </ul>	<b>NSWMC</b>	<b>Completed</b>
<b>5. Weather forecasting promotional material</b>		
<ul style="list-style-type: none"> <li><i>Theresource</i> to present a draft script / plan for the weather forecasting project video at the next Industry Working Group meeting.</li> </ul>	<b>theresource</b>	<b>Completed</b>
<b>6. Rio Tinto MTW environment reporting website</b>		
<b>7. UHMD Annual Forum report</b>		
<ul style="list-style-type: none"> <li>NSWMC to consider developing and uploading standard downloadable UHMD collateral to the UHMD website.</li> </ul>	<b>NSWMC</b>	<b>In progress</b>
<b>8. Update on UHMD communications initiatives and media mentions</b>		
<ul style="list-style-type: none"> <li>NSWMC to promote UHMD projects through social media.</li> </ul>	<b>NSWMC</b>	<b>Ongoing</b>
<ul style="list-style-type: none"> <li>Melinda Hale to discuss mining factsheet needs with NSWMC and/or <i>theresource</i>.</li> </ul>	<b>Melinda Hale</b>	<b>In progress</b>
<ul style="list-style-type: none"> <li>NSWMC to distribute EPA's presentations on the Lower Hunter Particle Characterisation and Dust Deposition studies to the working group.</li> </ul>	<b>NSWMC</b>	<b>Completed</b>
<ul style="list-style-type: none"> <li>NSWMC to distribute the Singleton Shire Healthy Environment Group's document entitled '<i>World Health Assembly Maps the way forward in 2015</i>' to the working group.</li> </ul>	<b>NSWMC</b>	<b>Completed</b>
<b>9. EPA Upper Hunter Air Quality Particle Model</b>		
<b>10. Working group performance, relevance and strategic direction</b>		
<b>11. Other business</b>		

### Agenda Item 3

#### **UPDATE ON CURRENT PROJECTS**

##### **Communications Project**

Communications material relating to the weather forecasting project is being developed. Work to update the 'Mine Dust and You' fact sheet has also commenced.

##### **Community Air Quality Forecast Alert**

NSWMC wrote a letter to the Minister for the Environment the Hon Mark Speakman to follow up the government's commitment to this project. A response was recently received that referred to some work being undertaken by the Office of Environment and Heritage's (OEH's) Climate and Atmospheric Science Branch.

NSWMC subsequently spoke with Dr Yvonne Scorgie from OEH and found that it has been progressing some work on air quality forecasts for both Sydney and the Upper Hunter. NSWMC was able to secure a presentation from OEH to be provided to the JWG at its next meeting scheduled for Wednesday 19 October 2016.

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

NSWMC discussed the update of the '*Mine Dust and You*' fact sheet with NSWMC's Air Quality Working Group. NSWMC has sought a proposal from Pacific Environment, an air quality consultant, to update the factsheet. The draft updates would be reviewed by the Air Quality and JWG - Emissions and Health working groups. Once the draft is finalised, NSW Health, the EPA and any other relevant agencies will be involved in the review and approval of the factsheet. An infographic would then be developed based on the final version.

##### **Weather Forecasting Project**

Refer to Item 4.

#### **FOR INFORMATION / DISCUSSION**

## Agenda Item 4

### **PROMOTION OF WEATHER FORECASTING PROJECT**

#### **Issue**

Theresource and the IWG has drafted an outline for a video that explains what happens at a mine site when adverse weather is forecast. It is envisaged that the video would be distributed through YouTube, the UHMD website and company sites.

#### **Background**

NSWMC and Theresource has developed a draft outline (below) for the weather forecasting video. The entire document is about 2 1/2 minutes long. Once this is finalised, imagery for the video will be developed.

*The Upper Hunter Mining Dialogue was established in 2011 to help mining companies and the local community to work together to address health, environmental and other concerns associated with mining.*

*Mining companies and government regulators take dust emissions from mining activities very seriously, as it can be an issue if not closely monitored and effectively controlled.*

*The mining industry works very hard to manage air quality each and every day. Minimising dust is a standard operating procedure 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.*

*Each mine operates an extensive network of air quality monitoring stations in and around each mining operation that provide up to date data in real time. These monitoring networks are supported by the Upper Hunter Air Quality Monitoring Network; an industry funded, government managed real-time ambient air quality monitoring network.*

*One achievement of the Upper Hunter Mining Dialogue is the consistent use of weather forecast information to reduce or avoid air quality impacts from Upper Hunter mines. By using weather forecast information, mines can plan ahead and make better informed decisions about managing air quality at their operations. If adverse conditions are forecast, measures are put in place to minimise the impact. Such measures include but are not limited to:*

- *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 operations until conditions improve.*

*The Upper Hunter's mines are committed to minimising impacts on the Hunter community. These initiatives contribute to the region meeting some of the highest air quality standards in the world.*

*The Upper Hunter Mining Dialogue - Mining and Community Working Together. To find out more, visit [miningdialogue.com.au](http://miningdialogue.com.au)*

#### **RECOMMENDATION**

That the working group provide feedback on the draft script.

#### **FOR INFORMATION/ DISCUSSION**

## Agenda Item 5

### **RELEASE OF NEW HEALTH IMPACT REPORT ABOUT PARTICULATE MATTER IN NSW**

#### **Issue**

The EPA and NSW Health commissioned a report entitled “*Review of the health impacts of emission sources, types and levels of particulate matter air pollution in ambient air in NSW*” that was released in December 2015.

#### **Background**

The 243-page report was prepared by the Centre for Air Quality and Health Research and Evaluation (CAR) and the Woolcock Institute of Medical Research - both are located in Sydney. The document is available for download here:

[http://static1.squarespace.com/static/515ba920e4b0afec12175c59/t/56fc8f7937013be13fd595fb/1459392400679/Health+impacts+of+PM+report\\_final+for+web.pdf](http://static1.squarespace.com/static/515ba920e4b0afec12175c59/t/56fc8f7937013be13fd595fb/1459392400679/Health+impacts+of+PM+report_final+for+web.pdf)

It summarises the evidence of the health effects of different particulate matter as follows:

- Coarse PM (PM<sub>10-2.5</sub>) mass - Some evidence of association with increased risk of mortality, and both respiratory and cardiovascular (CV) hospitalisations. Impacts on respiratory health appear to be at least equivalent to the impacts from PM<sub>2.5</sub>.
- Fine PM (PM<sub>2.5</sub>) mass - Sufficient & strong evidence of causal association between long-term & short-term exposures and CV effects including mortality; likely causal association between long-term and short-term exposures and respiratory effects. No evidence of threshold for effects.
- PM composition - Epidemiological and toxicological studies that demonstrate compositional variability in PM toxicity, are strongly suggestive that PM composition (and not solely mass) influences the health effects of PM, although the evidence is inconsistent. Health effects have been associated with PM containing metals such as vanadium and nickel. Organic compounds found in PM, especially those from fossil fuel combustion, can cause health effects. Health outcomes have been associated with both sulphates and nitrates in PM.
- Coal dust - Insufficient evidence from community epidemiological studies to be confident in the health effects associated with environmental exposures. Occupational epidemiological studies and animal toxicity studies suggestive of the potential to impact respiratory health, and possibly CV health effects and cancer risk in surrounding communities (ie potentially harmful).
- Coal fired power station (CFPS) emissions - Sufficient & strong evidence of harm from direct emissions & formation of secondary aerosols, PM<sub>2.5</sub>-sulphate. Metals found in CFPS emissions associated with health effects. Insufficient evidence of increased health risks for people living close to coal fired power stations.
- On-road and off-road diesel vehicle exhaust emissions - Strong evidence of harm for CV and respiratory effects in human chamber studies and CV, respiratory, reproductive, developmental, cancer and allergy augmentation in animal studies. Potentially carcinogenic in ambient air (although carcinogenesis based on occupational studies).
- Solid fuel (wood) domestic heating - Sufficient evidence of association with increased adverse respiratory health effects, particularly in children.
- Bushfires and hazard reduction burning - Sufficient and strong evidence (including locally) of association with increased risk of respiratory health effects such as hospital admissions and presentations due to asthma and chronic obstructive pulmonary disease. Inconsistent evidence of association with increased risk of mortality or CV morbidity.

The report states that “*By world standards, the ambient levels of PM in urban NSW are low. However, the evidence presented in this report suggests that exposure to levels of PM that currently exist in NSW will have measureable adverse impacts on health, particularly in vulnerable people such as individuals with chronic respiratory and cardiovascular diseases, the elderly, and children. Reductions in PM air pollution in NSW are likely to result in health benefits, particularly for these most vulnerable groups.*”

It ultimately recommends that “*exposure of the NSW population to all PM (regardless of source) be minimised by reducing ambient PM levels to as low as possible.*” However it also states that “*the recommendations that stem from this project are based solely on scientific conclusions on the health effects of PM air pollution and do not consider other issues relevant to policy formulation, such as economic considerations, environmental justice, and other political and social factors.*”

#### **FOR INFORMATION / DISCUSSION**